8 March 2021

RHI Magnesita N.V.

("RHI Magnesita" or the "Company" or "Group")

2020 Full Year Results

Strong strategic progress in a challenging year; well positioned for market recovery

RHI Magnesita today announces its 2020 full year results for the year ended 31 December 2020 ("2020" or the "Year").

Financial results	2020	2019	2019		
			Adjusted ¹		Change
	Adjusted ¹	Adjusted ¹	at constant	Change	at constant
(€m unless stated otherwise)			currency		currency
Revenue	2,259	2,922	2,807	(23)%	(20)%
Adjusted EBITA	260	408	420	(36)%	(38)%
Adjusted EBITA margin	11.5%	14.0%	15.0%	(250)bps	(350)bps
Adjusted EPS	€3.28	€5.57		(41)%	
Net debt ²	582	650		(10)%	
Net debt to adjusted EBITDA ²	1.5x	1.2x		0.3x	

	2020	2019
(€m unless stated otherwise)	Reported	Reported
Revenue	2,259	2,922
EBITA	140	300
Profit before tax	42	200
EPS	€0.51	€2.82
Dividend	€1.50	€0.50

1 Adjusted figures are alternative performance measures "APM" excluding impairments, amortisation of acquisition intangibles and exceptional items to enable an understanding of the underlying performance of the business. Full details are shown in the APM section.

2 Following the introduction of IFRS 16 Leases, 2020 net debt includes the impact of IFRS 16 of \leq 57 million. 2019 adjusted net debt figures are shown including the impact of IFRS 16 (\leq 62 million) to facilitate comparison between reporting periods.

Highlights

- Responded swiftly and effectively to COVID-19
 - Prioritised safe working conditions, increased liquidity, maintained production and delivered for our customers
- Resilient financial performance delivered against a challenging market environment
 - o Gross profit margin of 24.4% (2019: 24.5%), adjusted EBITA margin of 11.5% (2019: 14.0%)
 - Positive adjusted operating cash flow of €290 million (2019: €359 million) supported by strong working capital management, leading to a reduction in net debt to €582 million (2019: €650 million)
- Sustained focus on strategic execution and shareholder returns
 - Cost initiatives accelerated, on track to deliver €100m by 2022, with peak capex in 2021
 - Sales strategies targeting €40-60m of annualised EBITA benefit by 2022
 - Sustainability leadership accelerated with €50m R&D programme to support move towards CO₂ neutrality
 - Final dividend of €1.00 per share recommended, total full year dividend in respect of 2020 €1.50 per share
 - Group has resumed dividend payments and launched a €50m share buy-back programme, returning €52 million to shareholders in 2020

Outlook

The Group continues to see steady, month-on-month improvement in demand in all its end markets and order book. Whilst volatility and uncertainty are likely to remain elevated in the short term, the Group expects overall recovery trends to continue in both its Steel and Industrial divisions during 2021, with earnings likely to be weighted towards the second half. Our expectations for 2021 adjusted EBITA are in line with current market expectations¹, assuming the recovery in our end markets is sustained. The Group has protected its commercial, operational and sustainability investments throughout a period of difficult market conditions and is well positioned to benefit from these as markets recover.

Board composition

The Board advises that Andrew Hosty and Celia Baxter, Chair of Remuneration Committee, will not seek re-election at the June 2021 AGM at the end of their three year term. The Board expresses its sincere gratitude to Andrew and Celia for their diligent support and guidance to the Company in the years since our Listing on the London Stock Exchange. From June 2021, Janet Ashdown will become Chair of the Remuneration Committee. Further details on Board composition and intended future appointments can be found in the Annual Report.

Commenting on the results, Chief Executive Officer, Stefan Borgas said:

"2020 has been the most challenging year that our industry has experienced. Throughout the pandemic RHI Magnesita has protected the health and safety of our employees, ensured business continuity for our customers and taken initiatives to support liquidity and underpin future profitability. Through one of the severest downturns on record, we sustained an adjusted EBITA margin of 11.5% and adjusted operating free cash flow of €290 million, demonstrating the resilience of our business model and the outstanding commitment of our people. During this challenging period, our strong financial position has enabled us to continue to invest in our strategic priorities. We have further reduced costs and optimised operations, supported by investments in digitalisation and automation.

Today we announce an acceleration of our CO₂ strategy, investing €50 million over the next four to five years towards technology research and pilot plant constructions. This is designed to build the specific technology toolbox to support RHI Magnesita in its aspiration to be a carbon neutral business.

I am enormously proud of how our people have responded to these most difficult of circumstances. The women and men at RHI Magnesita have demonstrated their ability and desire to withstand very large challenges as they emerge. I want to express my deepest gratitude to our teams for their passion, to our Board of Directors for its guidance, to our suppliers for their dedication, and to our shareholders for their trust, and most importantly to our customers for their confidence in RHI Magnesita.

With our end-markets now showing signs of recovery, we are confident that the business is well-positioned to take advantage of new opportunities as conditions improve."

1. Current market expectation based on Company compiled consensus of €310 million.

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Conference call

A physical presentation for analysts and investors will not be held due to restrictions relating to the COVID-19 virus. The presentation will be broadcast via webcast and conference call at 8.00am UK time, 8 March 2021. The webcast can be accessed using the following link: https://www.investis-live.com/rhimagnesita/60181527dd22a1140091188b/urlf. A replay will be available on the same link shortly after event.

Conference call participant dial-in numbers are as follows:

UK: 0800 640 6441

All other locations: 020 3936 2999

Access code: 378009

The Company's 2020 Annual Report has been published in compliance with § 124 (1) of the Austrian Stock Exchange Act and Article 21 (3) and (1) of the Transparency Directive, and is available to view on the website at: <u>https://ir.rhimagnesita.com/</u>. In compliance with Listing Rule 9.6.1, a copy will also be submitted to the National Storage Mechanism and will shortly be available for inspection at <u>http://www.morningstar.co.uk/uk/NSM</u>.

This announcement also contains as appendices additional information for the purposes of compliance with DTR 6.3.5 (1) of the UK Disclosure and Transparency Rules. The information below is extracted, in full unedited text, from the Annual Report 2020. Page numbers and cross references in the extracted information refer to page numbers and cross-references in the Annual Report. This announcement should be read in conjunction with and is not a substitute for reading the full Annual Report 2020

About RHI Magnesita

RHI Magnesita is the leading global supplier of high-grade refractory products, systems and solutions which are critical for high-temperature processes exceeding 1,200°C in a wide range of industries, including steel, cement, nonferrous metals and glass. With a vertically integrated value chain, from raw materials to refractory products and full performance-based solutions, RHI Magnesita serves customers around the world, with around 12,000 employees in 30 main production sites and more than 70 sales offices. RHI Magnesita intends to leverage its leadership in terms of revenue, scale, product portfolio and diversified geographic presence to target strategically those countries and regions benefitting from more dynamic economic growth prospects.

The Group maintains a premium listing on the Official list of the London Stock Exchange (symbol: RHIM) and is a constituent of the FTSE 250 index, with a secondary listing on the Vienna Stock Exchange (Wiener Börse). For more information please visit: www.rhimagnesita.com

This Announcement contains (or may contain) certain forward-looking statements with respect to certain of the Company's current expectations and projections about future events. These statements, which sometimes use words such as "aim", "anticipate", "believe", "intend", "plan", "estimate", "expect" and words of similar meaning, reflect the directors' beliefs and expectations and involve a number of risks, uncertainties and assumptions which could cause actual results and performance to differ materially from any expected future results or performance expressed or implied by the forward-looking statement. Statements contained in this Announcement regarding past trends or activities should not be taken as a representation that such trends or activities will continue in the future. The information contained in this Announcement is subject to change without notice and, except as required by applicable law, the Company does not assume any responsibility or obligation to update publicly or review any of the forwardlooking statements contained in it and nor do they intend to. You should not place undue reliance on forward-looking statements, which speak only as of the date of this Announcement. No statement in this Announcement is or is intended to be a profit forecast or profit estimate or to imply that the earnings of the Company for the current or future financial years will necessarily match or exceed the historical or published earnings of the Company. As a result of these risks, uncertainties and assumptions, the recipient should not place undue reliance on these forwardlooking statements as a prediction of actual results or otherwise.

The Company has no obligation or undertaking to update or revise the forward-looking statements contained in this Announcement to reflect any change in its expectations or any change in events, conditions, or circumstances on which such statements are based unless required to do so by the current regulations which we are submitted to.

CEO review

Employee wellbeing and reliable customer service paramount in a challenging year

The COVID-19 pandemic brought extraordinary challenges in 2020. From the outset, our priorities were protecting the health and safety of our employees and our business partners, securing business continuity and protecting the financial health of the Company. Against this backdrop, we further reduced accident rates and maintained safe working conditions in our operations. We introduced strict infection control measures at all sites, increased internal communications, restricted travel and implemented remote working wherever possible. We continue to deliver for our customers, working hard to address their evolving requirements by leveraging digital technology, adapting our ways of working, providing flexibility and maintaining reliability. Through decisive management action, we have been able to deliver double digit adjusted EBITA margin despite a 23% decline in revenue. Solid cash generation enabled the Group to reduce net debt and retain a strong liquidity position, with €1.2 billion of cash and available facilities at the year end.

Strong business model and management initiatives helped to offset COVID-19 impact

We recognised early on that the pandemic would have long-lasting effects on our industry and took the opportunity in 2020 to look closely at many aspects of our business. These included our workforce capacity, competitiveness, production and raw materials networks and ways to improve our innovative capabilities. As a result, we have extended our strategic initiatives to reduce costs and support profitability to make sure that our business is optimised for a post-pandemic environment.

Customer demand was impacted during the year, exacerbated by raw material prices also falling. World Steel Association recorded a c.1% fall in Steel production (c.8% excluding China) in 2020 against 2019, and global Cement production fell by c.3% against 2019. The decline in volumes was concentrated within the Group's key markets outside China and revenue declined by 23% against the prior year to \pounds 2,259 million (2019: \pounds 2,922 million), with Steel Division revenue reducing by 22% and Industrial Division revenue by 25% compared to 2019.

We took swift action early in 2020 to mitigate the negative impacts of lower revenues on earnings. One-off fixed cost reductions of €50 million were achieved in 2020, including the temporary closure of plant and the introduction of short time working arrangements. These measures, together with our longer-term cost savings initiatives, enabled the Group to maintain a double-digit adjusted EBITA margin of 11.5% (2019: 14.0%), a decrease of only 250 bps despite the 23% reduction in revenues.

The Group's refractory margin improved slightly, at 9.1% (2019: 9.0%). Backward integration is a key strategic advantage for RHI Magnesita, ensuring a lower cost, high quality supply of raw materials, and added €55m of EBITA during the Year or 2.4% of EBITA margin. This helped support profitability and resulted in the Group delivering adjusted EBITA for 2020 of €260 million, a reduction of 36% versus 2019 (2019: €408 million).

We have seen industry wide re-stocking of supply chains by Steel and Industrial customers driving increased refractory demand at the end of 2020 and into Q1 2021. This short-term, and concentrated, rise in demand has resulted in an increase in lead times to fulfil orders and some additional costs being incurred to best meet customer expectations. This has been aggravated by the industry-wide increase in freight rates and shortage of shipping containers.

Good strategic progress, with continued investment in innovation, digitalisation and regionalisation

Despite the disruption caused by the pandemic, we have remained focused on delivering on our strategy. Whilst we have adapted to the situation and accelerated certain elements, the strategy continues to centre around three key pillars:

- Reducing costs to further improve our competitiveness in addition to one-off fixed cost reduction activities in response to the pandemic, the Group continued to deliver on its longer-term cost savings initiatives. We have expanded the scope of our Production Optimisation Plan, taking the total number of plants to be rationalised to ten by H1 2022. We are restructuring our platform to better regionalise the network, reducing our plant footprint from 32 sites when the programme was announced in November 2019. We have also identified significant sales and administrative cost savings, including reducing headcount in the first three levels of management below CEO by 20%, thereby creating a more efficient organisational structure and a better platform to deliver our strategy. Together, these initiatives delivered €30 million of EBITA benefit in 2020 and are expected to deliver €100m of annualised EBITA savings by 2022.
- 2. Enhancing our business model RHI Magnesita is the world's leading refractory and heat management solutions provider in the refractory industry, with an extensive portfolio based on innovative technologies and digitalisation. Although customer site access has been restricted by COVID-19 precautions, we have taken an active approach to progressing our sales strategies in 2020. This has included expanding the solutions business model and sustainability offering, investing in digital transformation projects, automation and robotics, positioning ourselves for growth in new markets, and developing our Flow Control business. RHI Magnesita also formed a strategic partnership with Microsoft during the year to accelerate its digital offerings and support new ways of working with customers. The financial benefits of our sales strategies have been delayed by COVID-19, but we continue to anticipate an annual EBITA contribution of €40-60 million by 2022 and recorded a €5 million increase in 2020.
- 3. Driving market leadership RHI Magnesita is the global leader in the c.€20 billion refractory industry, with technologically advanced products and services, a worldwide presence and strong local organisations in all major markets. We have identified major opportunities in growth markets, such as China and India. During 2020, we continued to decentralise the Group's global functions to be closer to customers and to implement a 'local for local' production model, allowing the business to better address regional demand and become more flexible. In addition to organic growth, RHI Magnesita continues to pursue disciplined M&A opportunities in key growth regions and market segments.

Strategy underpinned by commitment to sustainability

To be successful in delivering its strategy, RHI Magnesita needs the broadest range of talent and perspectives, especially in leadership positions. Our intention is to foster diversity of thought; be this through differences in gender, nationality, age or other factors. We are taking steps further to increase gender diversity at Board level, with the

proposed appointment of additional female Directors at the 2021 Annual General Meeting. Currently, 25% of the Board is female and half of the Board Committees are chaired by women.

We are committed to increasing the representation of women amongst senior leaders to 33% by 2025. We made significant progress towards this aim in 2020 as the proportion of women in senior leadership positions increased from 17% in 2019 to 25%, following organisational changes and associated promotions.

As a global leader in refractories and heat management services, RHI Magnesita recognises its responsibility to reduce CO_2 emissions arising from its own operations and is also uniquely positioned to assist its customers in achieving greater energy efficiency and lower emissions in their own industrial processes. The Group is investing in a number of initiatives to meet these challenges. By increasing the use of secondary raw material in our refractory products we aim to reduce our scope 1 and scope 2 CO_2 emissions by 15% per tonne of output by 2025. In addition, the Group is investing \in 50m in CO_2 reduction technologies, including new technology for the capture of geogenic CO_2 that would otherwise be emitted in the refractory manufacturing process, over the next four to five years. If successful, our pilot projects in this area will enable us to progress towards becoming a net zero carbon emitter. This will position the Group as a preferred supplier for our customers who are working to achieve their own sustainability goals. We are also developing solutions for our customers aimed at minimising energy consumption and emissions. Our low-carbon 'ANKRAL LC' series has been rolled out selectively in Europe and is gaining traction with customers.

Robust financial position, strong liquidity and improved cash conversion

We maintained a robust financial position throughout the year, with available liquidity of €1.2 billion at 31 December 2020 (31 December 2019: €1.1 billion). The Group generated operating cashflow of €290 million in 2020 (2019: €359 million), representing improved cash conversion of 112% (2019: 88%). This was supported by our ongoing working capital initiatives, which released €97 million in 2020.

Free cash flow of €101 million delivered a reduction in net debt to €582 million (2019: €650 million). Gearing increased to 1.5x EBITDA (31 December 2019: 1.2x), as the reduction in net debt was offset by lower EBITDA in the period but remained within the Group's target range of 0.5x - 1.5x.

Focus on sustainable value creation

The Group's capital allocation policy is to support our long-term strategy, providing flexibility for both organic and inorganic investment opportunities, whilst delivering attractive returns to shareholders. €86 million of project capital was committed during the year, to further progress the Group's strategic sales and cost savings initiatives and on a number of fast payback plant capacity increases. In addition, in 2020, the Group incurred restructuring expenses of €69 million and non-cash impairments of €48 million that will sustainably reduce the cost base in the future. The Group remains committed to internal investment alongside inorganic investment opportunities.

Following the resilient underlying cash generation of the business in the first nine months of 2020, together with the strength of the balance sheet and improving confidence in the market outlook, the Board reinstated an interim dividend of €0.50 per share at the Q3 trading update in November. The Board is today recommending a final dividend

of €1.00 per share, taking the total dividend for the year to €1.50 per share, which represents a dividend cover of 2.2x adjusted earnings per share.

As announced in December 2020, the Group has also commenced a share buyback programme of up to €50 million which is likely to complete by the end of H1 2021. The Company had purchased a total of €3 million of shares by the end of the year which were placed in treasury. On completion of this programme, the Board will review the merits of further share purchases.

FINANCIAL REVIEW

Reporting approach

The Company uses a number of alternative performance measures ("APMs"), in addition to those reported in accordance with IFRS, which reflect the way in which the Board and the Executive Management Team 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 used internally in the management of our business performance, budgeting and forecasting. A reconciliation of key metrics to the reported financials is presented in the section titled APMs.

All references to comparative 2019 numbers in this review are on a reported basis, unless stated otherwise. Figures presented at constant currency represent 2019 translated to average 2020 exchange rates of 1 Euro to 1.14 USD, 1 Euro to 7.87 CNY, 1 Euro to 5.89 BRL, 1 Euro to 84.6 INR, 1 Euro to 8.05 TRY.

Following the organisational structure changes that look place in H2 2020, the Group is now reporting its Operational review under new business unit groupings.

The Group has considered the FRC's guidance to listed companies to lengthen their reporting timetable for 2021, aligned to the extension to reporting deadlines announced by the FCA. However, the Group believes it is well positioned, in conjunction with its auditors, to accelerate its timetable for the year end 2020 to bring it more in line with peer reporting timescales.

Revenue

The Group recorded revenue of €2,259 million in 2020, a decline of 23% against the prior year (2019: €2,922 million). The reduction is primarily attributable to lower refractory volumes, as a result of the effect of the COVID-19 pandemic on end-market demand, and the impact of lower raw material prices over the year compared to 2019.

Raw materials

Raw material prices declined materially in the first five months of 2020, due to an overcapacity of supply in China, coupled with weak underlying raw material demand. Prices softened further between June and August before

recovering in the fourth quarter, due to reduced supply from Chinese producers impacted by higher winter power tariffs and stricter enforcement of environmental legislation.

Steel Division

The Group's Steel Division delivered revenue of €1,583 million in 2020, 22% lower than 2019 (2019: €2,018 million). The COVID-19 impact on refractory demand had the most notable impact in Europe, CIS, and Turkey, where revenue in the combined region was 26% lower than the prior year. Refractory prices also reduced due to lower raw material prices. The Americas revenue contribution was 21% lower than 2019, mainly as a result of the impact of COVID-19 on industrial output, but also due to currency devaluation (principally of the Brazilian Real). China and East Asia performed relatively well by comparison to other regions in 2020, with revenue decreasing by only 7%. This was largely thanks to the economic strength in China, where Group revenue was 41% higher than in 2019. In India, Africa and West Asia, revenue declined by 22%, with the most significant decrease in India, resulting from strict nationwide COVID-19 lockdowns. Saudi Arabia and Oman outperformed during 2020 and signs of a recovery in India were evident at the year end.

Industrial Division

Industrial Division revenue reduced by 25% to €676 million (2019: €904 million), heavily impacted by the effects of the global pandemic, with customers postponing capital expenditure projects faster than in previous downturns. The Cement and Lime business, down by 21% in 2020, recorded a strong performance in Q1, characteristic of seasonal demand, followed by a weak Q2 and Q3 when demand was negatively impacted by COVID-19. The Industrial Projects business, down by 28% in 2020, experienced heavy project postponements, especially in NFM. Demand in both the Cement and Lime and Project businesses improved in Q4, as end markets started to recover.

Gross profit

The Group achieved gross margin of 24.4% (2019: 24.5%), demonstrating the resilience of the business and the benefits from the cost reduction initiatives which were swiftly executed by management during the year. The Group recorded a gross profit of €550 million in 2020, a decline on the prior year of 23% (2019: €717 million) due to lower revenue, as cost saving initiatives offset lower fixed cost absorption.

On a divisional basis, gross profit in the Steel Division amounted to €371 million, a decline of 20% against the previous year (2019: €467 million). However, gross margin improved at 23.5%,(2019: 23.1%). Gross profit in the Industrial Division amounted to €179 million (2019: €250 million), a decline of 29% against the prior year and gross margin declined by 130 bps to 26.4% (2019: 27.7%).

Steel	2019	2020	Change
Revenue (€m)	2,018	1,583	(22)%
Gross Profit (€m)	467	371	(20)%
Gross margin	23.1%	23.5%	40bps
Industrial	2019	2020	Change
Industrial Revenue (€m)	2019 904	2020 676	Change (25)%
			0

SG&A

The Group took swift short-term action early in 2020 to mitigate the negative impacts of the COVID-19 pandemic on earnings including temporary plant shutdowns, short-time work arrangements, reduced overtime and other SG&A reduction initiatives. As a result of the measures taken, total selling, general and administrative expenses, before R&D related expenses, were €279 million, representing a 10% reduction against the prior year (2019: €309 million).

Depreciation and amortisation

Depreciation for 2020 amounted to ≤ 120 million (2019: ≤ 146 million), lower than 2019, mainly due to currency effects (≤ 12 million). Depreciation is denominated in local currency and, therefore impacted by foreign exchange rates, most notably from Brazilian Real and US Dollar. Depreciation was also lower due to the increase of useful life of assets given the lower production levels in 2020 (≤ 10 million) and the reduction of assets due to the closure of plants. Depreciation in 2021 is expected to be around ≤ 115 million.

Amortisation of intangible assets amounted to €19 million in 2020 (2019: €26 million). Amortisation was lower than 2019 largely due to currency effects, given it is denominated in local currency and therefore impacted by foreign exchange rates, most notably by Brazilian Real and US Dollar. Amortisation is anticipated to total €18 million in 2021.

Adjusted EBITDA

Adjusted EBITDA amounted to €381 million, down by 31% compared to 2019. The adjusted EBITDA margin for 2020 was 16.8%, compared to 19.0% over the same period last year, a decrease of 220 bps.

Adjusted EBITA

The Group delivered adjusted EBITA in 2020 of €260 million, a reduction of 36% compared to 2019 (2019: €408 million), largely due to lower sales volumes as a result of the COVID-19 pandemic and lower average raw material prices.

Despite the reduction in volumes, the Group delivered a robust double-digit margin of 11.5%, 250bps lower than 2019 (2019: 14.0%). Despite the challenging backdrop of 2020, the Group's refractory margin was 9.1%, an increase of 0.1ppts compared with 2019. The additional burden from significantly lower sales volumes, arising from the effects of the pandemic, was offset by structural cost reductions, driven by the execution of the cost savings initiatives. The Group's refractory margin was broadly stable despite the challenging backdrop during 2020. The Group's backward integration margin was 2.4%, contributing €55 million of EBITA.

	2019	2019	2020	% Change Reported	% Change at constant
(€m)	Reported	at constant currency		neporteu	currency
Revenue	2,922	2,807	2,259	-23%	-20%
Cost of Sales	-2,205	-2,089	-1,709	-23%	-18%
Gross Profit	717	718	550	-23%	-23%
SG&A	-309	-298	-279	-10%	-6%
R&D expenses	-26	-25	-30	16%	20%
OIE	-109	-110	-120	11%	9%
EBIT	273	286	121	-56%	-58%
Amortization	-26	-25	-19	-27%	-21%
EBITA	300	310	140	-53%	-55%
Adjusted items	109	110	120	11%	9%
Adjusted EBITA	408	420	260	-36%	-38%

Net finance costs

Net finance costs in 2020 amounted to €87 million (2019: €75 million).

Net interest expense amounted to ≤ 14 million (2019 ≤ 19 million). Interest expenses on borrowings amounted to ≤ 20 million (2019 ≤ 28 million). The reduction of ≤ 8 million compared to 2019 is predominantly driven by the refinancing of higher interest-bearing debt. Interest income amounted to ≤ 6 million, against ≤ 9 million the prior year.

Foreign exchange amounted to a loss €43 million, against €17 million in 2019. The Group was impacted by the significant depreciation of the Brazilian Real and US Dollar against the Euro over the year, resulting in an increased effect of foreign currency translation on the P&L in 2020.

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:

- €120 million recorded in 'restructurings, other income and expenses', relating mainly to the cost reduction initiatives, including plant closures and reduction in sales and administration costs. These included severance costs of €69 million and non-cash impairments of €48 million.
- €19 million amortisation of intangible assets
- €16 million non-cash other net financial expenses. These include €8 million non-cash present value adjustment of the provision for the unfavourable contract required to satisfy EU remedies and €7 million relating to an FX loss on a non-recurring intercompany loan
- One-time charges excluded from the effective tax rate ("ETR"), largely the restructuring and impairment expenses.

Taxation

Total tax for 2020 in the income statement amounted to €14 million (2019 €51 million), representing a 33% effective tax rate (2019: 25%). This tax rate is higher than recent years due to certain 2020 restructuring charges which are not tax deductible. Reported profit before tax amounted to €42 million (2019: €200 million). Adjusted profit before tax amounted to €197 million (2019: €358 million) with an adjusted effective tax rate of 17% (2019: 21%), after adjusting for one-time benefits from the 2020 recognition of certain deferred tax assets. The adjusted ETR guidance is between 20% - 22% for 2021.

Profit after tax

On a reported basis, the Group recorded a profit after tax of €28 million (2019: €149 million) and earnings per share of €0.51 in 2020 (2019: €2.82). Adjusted earnings per share for 2020 were €3.28 (2019: €5.57).

(€m)	2020 Reported	Items excluded from adjusted performance	2020 Adjusted
EBITA	140	120	260
Amortisation	(19)	19	-
Net financial expenses	(87)	16	(71)
Result of profit in joint ventures	8	-	8
Profit before tax	42	155	197
Income tax	(14)	(19)	(33)
Profit after tax	28	136	164
Non-controlling interest	3		3
Profit attributable to shareholders	25		161
Shares outstanding ¹	49.0m		49.0m
Earnings per share	€0.51		€3.28

1. Total issued and outstanding share capital as at 31 December 2020 was 49,008,955. The Company held 468,750 ordinary shares in Treasury. Weighted average number of shares used for basic earnings per share 49,075,426.

Working capital

Working capital reduced significantly compared to the 2019 year end, to ≤ 369 million at 31 December 2020 (31 December 20191: ≤ 519 million), reflecting lower trading activity, higher Q4 2020 capex levels and the ongoing benefits of the Group's working capital initiatives. These included the introduction of our proprietary Total Network Optimisation tool, which recommends the most cost-effective source of raw materials for production. In early 2020, the Group implemented an Integrated Business Planning system, which supports decision making and financial planning, as well as enhancing demand and supply planning. The Group achieved a working capital intensity, measured as a percentage of the last three months' annualised revenue, of 15.9% in 2020. This represents a significant improvement of 230bps compared to 2019 and within the Group's target range of 15-18%. Working capital contributed cash inflows of ≤ 97 million, against an outflow of ≤ 23 million in 2019.

Inventories decreased to €477 million (31 December 2019: €603 million), Accounts Receivable decreased to €210 million (31 December 20191: €277 million) and Accounts Payable decreased to €319 million (31 December 20191: €361 million). The weaker Brazilian Real and US Dollar provided an FX tailwind in the inventory reduction, with inventories decreasing by €126 million against a €64 million cash flow benefit.

The inventory decrease was mainly driven by the Group's efforts to reduce finished stock in its warehouses, as well as improving the efficiency of raw material and finished goods inventory by adjusting production to demand levels. This resulted in raw material coverage ratios in 2020 reducing from 1.7 to 1.3 months, and finished goods from 2.3 to 1.9 months.

Accounts receivable reduced by €67 million due to lower revenues, as well as ongoing improvement of client terms and a material reduction of overdue receivables.

Working capital financing, used to provide low cost liquidity and support the Group's commercial offering to customers, stood at €222 million at the end of the year (2019: €290 million). This comprised €178 million of accounts receivable financing (factoring) and €44 million of accounts payable financing (forfeiting). Working capital financing levels vary according to business activity, and the Group targets a medium-term level below €320 million. As business activity levels improve, working capital financing will moderate the cash outflow from working capital increases.

1. 2019 restated to reflect an accounting adjustment denoted within note 4 of the financial statements

Capital expenditure

Capital expenditure in 2020 was €157 million (2019: €156 million), comprising €71 million of maintenance capex (2019: €110 million) and €86 million of project capex (2019: €46 million). Including pre-payments of €17 million.

The Group reduced its maintenance capex in 2020 in line with lower production volumes and its reduced plant footprint. The sustainable level of maintenance capex over the medium-term to ensure safe production and sustain operations is €75-85 million.

The Group continues to prioritise capital expenditure on its strategic initiatives (being the cost reduction and sales initiatives). The capital projects underpinning these programmes are progressing on-budget and largely on-time, despite the impact of COVID-19. As previously guided, the additional project expenditure on strategic initiatives will continue until 2022.

In 2020, the Group invested €28 million (2019: €32 million) towards its backward integration, comprising maintenance capex of €6 million (2019: €7 million) and project capex of €21 million (2019: €24 million).

The Group expects capex to increase in 2021 to a peak of €260 million, of which €80 million will relate to maintenance expenditure and €180 million to project expenditure.

In 2022 guidance for capital expenditure is approximately €165 million, comprising €80 million of maintenance capex and €85 million of project capex. In 2023, capital expenditure is expected to reduce to €145 million, of which €80 million will be directed towards maintenance expenditure and €65 million towards projects. In 2024, the Group anticipates approximately €125 million of capital expenditure, of which €80 million will be on maintenance expenditure and €45 million on projects.

Cash flow

The Group continued to generate strong and sustainable cashflow in 2020, despite the pandemic. The Group generated operating cashflow of €290 million in 2020 (2019: €359 million), representing an improved cash conversion of 112% (2019: 88%), benefiting from working capital reduction of €97 million in 2020. Free cash flow increased to €101 million (2019: €99 million).

Cash Flow		
€m	2019 ¹	2020
Adjusted EBITA	408	260
Working Capital	(23)	97
Changes in Other Assets/Liabilities	(17)	(31)
Capital Expenditure (including pre-payments)	(156)	(157)
Depreciation	146	120
Operating Cash Flow ²	359	290
Cash tax	(68)	(48)
Net financial expenses	(42)	(25)
Restructuring/Transaction Costs	(6)	(52)
Dividend payments	(76)	(49)
Share buyback	(19)	(3)
Dividend from associates	13	11
MORCO acquisition		(9)
Sale of PPE ³	1	11
Right of use assets acquisition	(18)	(25)
Magnesita minority acquisition	(45)	0
Free Cash Flow	99	101

1. Reported basis

2. Operating free cash flow is presented to reflect the net cash flow from operating activities before certain items such as restructuring costs. Full details shown in the APM section.

3. Including the sale of the Burlington site (Canada) in 2020, cash inflow of €8m

Net debt

Net debt at the end of 2020 was ξ 582 million, comprising total debt of ξ 1,115 million, cash and cash equivalents of ξ 589 million, including ξ 2 million cash forming part of the held for sale assets, and IFRS 16 leases of ξ 57 million. This compares to net debt at the end of 2019 of ξ 650 million including IFRS 16 leases of ξ 62 million. Net debt to EBITDA at the year-end was 1.5x, 0.3x higher than 2019 (2019: 1.2x) and within the Group's target range of 0.5x – 1.5x despite the significant reduction in earnings. The Group has significant headroom on its long-term net debt to EBITDA covenant of 3.5x.

Total liquidity for the Group at year end was €1,189 million, including the Group's undrawn committed facilities of €600 million. In November 2020, these undrawn committed facilities were extended from 2025 to 2026. The majority of the Group's debt maturities are due on or after 2023.

Return on invested capital

Return on invested capital (ROIC) is used to assess the Group's efficiency in executing its capital allocation strategy, which is aimed at enabling organic growth, disciplined M&A and shareholder returns. The Group ROIC in 2020 was 11.5% (2019: 15.3%), from a total of €1,754 million of invested capital (2019: €2,064 million) and €201 million recorded net operating profit after tax (NOPAT) (2019: €316 million). The Raw material ROIC was 13.5% (2019: 22.3%), from a total of €385 million of invested capital (2019: €487 million) and €52 million NOPAT (2019: €109 million).

Strategic initiatives

The Group is advancing two significant strategic programmes to sustainably increase earnings:

- Cost savings initiatives representing €100 million of incremental EBITA by 2022. This requires total capital expenditure of €160 million by 2022 and restructuring costs of €100 million.
- In 2020, the cost reduction initiatives delivered EBITA benefit of €30 million, in line with guidance. In 2021, these initiatives are expected to deliver run rate EBITA benefit of €75 million, an increase of €45 million against 2020.
- Sales strategies representing €40 60 million of incremental EBITA benefit by 2022. This requires total capital expenditure of €30 million by 2022. The sales strategies delivered €5 million of EBITA in 2020, below the target level of €10 million, due to restrictions as a result of worldwide COVID-19 lockdowns which impeded access to customer sites. The COVID-19 pandemic continues to present uncertainty in 2021. The Group is targeting an EBITA benefit of €10 20 million in 2021 from its sales strategies.

Presented in €m	2019	2020	2021E	2022E	Cumulative amount
Cost savings initiatives EBITA im- provement ¹	15	30	75	100	
Implementation costs		·	·		·
Capital Expenditure	-	45	95	20	160
Restructuring costs ²	5	40	55	-	100
Impairments	52	36	12	-	100
Sales initiatives EBITA improvement	-	5	10 - 20	40-60	
Implementation costs					
Capital Expenditure	-	5	15	10	30

1. Cost saving initiatives do not include the one-off fixed cost savings of €50 million relating to COVID-19 mitigation measures. €10 million of these savings will be recorded in 2021 in the form of lower depreciation.

2. Cash flow impact

Cost savings initiatives

The cost savings initiatives largely comprise the Production Optimisation Plan and SG&A reduction:

- The Production Optimisation Plan seeks to rationalise the Group's global production footprint with the closure of up to ten sites (with a focus on Europe and South America), increasing plant specialisation, reducing raw material costs and implementing state of the art technologies. During 2020, the Group successfully closed two European plants, Hagen (Germany) and Trieben (Austria) and Burlington plant (Canada), reducing over capacity in high cost locations. The Group is investing c.€45 million at the Hochfilzen plant (Austria) to transform it into a European dolomite hub as well as a dolomite research centre. A c.€50 million investment is being committed to an additional tunnel kiln and state of the art technology in its Radenthein plant (Austria) expanding RHI Magnesita's technical leadership. c.€40 million is being spent at the Contagem plant (Brazil), to improve its production efficiencies
- The SG&A reduction plan is reducing non-operational costs, largely from headcount reduction (including reducing the first three levels of management below CEO by 20%), greater regionalisation of management structures and digitalization.

In addition to the above strategic cost savings initiatives, in 2020, in response to COVID-19, the Group implemented certain one-off fixed cost reduction measures to mitigate the impact of the pandemic on Group results. These included temporary plant shutdowns, short-time work arrangements, reduced overtime and other SG&A reduction initiatives. In total, the Group achieved the guided €50 million in one-off fixed cost savings in 2020. €10 million of these savings will continue into 2021 (as business-as-usual savings), in the form of lower depreciation.

Sales strategies

The Group's sales strategies seek to grow RHI Magnesita's presence in new markets, improve customer segmentation and resource allocation, increase market share in the flow control product range and expand the solutions business, supported by investment in digitalisation.

M&A

In December 2020, the Group entered into an agreement to sell its two high cost raw material plants, Porsgrunn (Norway) and Drogheda (Ireland). Porsgrunn produces electro focused magnesia (EFM) and caustic calcined magnesia (CCM). The EFM operations were stopped in Q1 2020. CCM is not used by RHI Magnesita and is sold to third parties. Drogheda produces CCM and DBM, with its DBM largely sold to third parties and not utilised within the Group's network. The sale of both plants completed on 1 February 2021, realising a loss of approximately €5 million, with a potential further increase by €6 million resulting from a contingent consideration.

Returns to shareholders

RHI Magnesita's balance sheet has remained strong in 2020 and the Company's capital allocation strategy has been to prioritise strategic investment to improve its competitive position and shareholder returns.

In H1 2020, the Board did not recommend the payment of a final 2019 dividend as a prudent measure to preserve cash and maintain its strong liquidity and financial position, given the significant uncertainty relating to COVID-19 at that time.

In response to the improving outlook and confidence in the second half, the Board re-instated the interim dividend of €0.50 per share, and €24 million in aggregate, at the Q3 trading update, paid in December 2020.

Given the resilient performance of the business in an extraordinary year, and its strong annual cash generation, the Board has recommended a full year dividend of ≤ 1.50 per share, and ≤ 74 million in aggregate. This represents a dividend cover of 2.2x adjusted earnings per share.

Subject to approval at the AGM on 10 June 2021, the final dividend will be payable on 30 June 2021 to shareholders on the register at the close of trading on 11 June 2021. The ex-dividend date is 10 June 2021.

The Board's dividend policy remains to target a dividend cover of below 3.0x adjusted earnings over the medium term. Dividends will be paid on a semi-annual basis with one third of the prior year's full year dividend being paid at the interim.

On 16 December 2020 the Group commenced a share buyback programme of up to \leq 50 million and purchased a total of \leq 3 million of shares through the programme in 2020, which were placed in Treasury. On completion of this programme, the Board will review the merits of further share purchases.

OPERATIONAL REVIEW

Steel Division

Steel	2019 Reported	2019 (Constant currency)	2020	Change (reported)	Change (constant currency)
Revenue (€m)	2,018	1,926	1,583	(22)%	(18)%
Gross Profit (€m)	467	462	371	(20)%	(20)%
Gross margin	23.1%	24.0%	23.5%	40bps	(50)bps
Adj EBITA (€m)	253	255	175	(31)%	(31)%
Adj EBITA margin	12.5%	13.3%	11.1%	(140)bps	(220)bps
Steel by region by rev- enue (€m)	2019 Reported	2019 (Constant currency)	2020	Change (reported)	Change (constant currency)
Europe, CIS, Turkey	592	590	436	(26)%	(26)%

Americas	881	807	693	(21)%	(14)%
China and East Asia	179	177	167	(7)%	(6)%
India, Africa, West Asia	366	352	287	(22)%	(18)%

Demand for refractory products in the Steel Division, which accounts for 70% of Group revenue, is driven largely by global steel production volumes. Refractory products in steel plants are used to protect applications such as the basic oxygen furnace (BOF), electric arc furnace (EAF) and ladles from hot liquid steel. The lifetime of the refractory linings in steel production range from 20 minutes to two months and are therefore regarded as consumables and an operating expense by our customers. Refractory products and services are estimated to contribute c. 2-3% to the total cost base of a steel producer but can have wider benefits or impacts on energy consumption, production efficiency and margins beyond their cost contribution. The Group is a global leader in the manufacturing of advanced refractory materials and offers heat management services to its customers which can significantly improve steel plant performance.

Steel Division revenues declined by 22% in 2020 to €1,583 million (2019: €2,018 million), predominantly impacted by the effects of the global pandemic. Gross profit for the division was €371 million, down from €467 million in 2019. However, gross margin increased over the same period by 40bps to 23.5%, which was predominantly due to increased efficiencies and thereby lowering the cost of sales margin.

Europe, CIS, Turkey

Total revenue for the year in Europe, CIS and Turkey amounted to €436 million, down 26% on 2019 (2019: €592 million). The Company's overall performance in Western Europe was impacted by COVID-19 and weaker raw material prices, as well as overcapacity and a high cost base, leading to a 31% fall in revenue.

The Group is making good progress in executing its strategy in Europe to increase its competitiveness by reducing excess capacity and costs. As part of the Production Optimisation Plan, the Company is investing over €40 million at the Hochfilzen plant, transforming it into a centre of innovation for Dolomite research, as well as a hub for providing high quality supply of dolomite products throughout Europe. The Group is also investing c.€50 million in modernising the Radenthein plant, expanding RHI Magnesita's technical leadership.

As part of our digitalisation initiatives, Radio Frequency Identification (RFID) technology has been launched as an onsite pilot with a European customer.

One of the Group's new solutions business models was launched in Europe in 2020, and one contract has already been signed with a long-standing customer. The Group is experiencing increasing demand for CO₂ reduction and recycling solutions amongst its customers in Europe, CIS and Turkey.

Americas

Total revenue for the year of €693 million in North and South America represented a 21% decrease on 2019 (2019: €881 million), mainly as a result of the impact of COVID-19 on the regions' economies and consequently on crude steel production, but also currency devaluation (principally of the Brazilian Real). After the strong performance in Q1 2020 in the Americas, Q2 and Q3 were heavily impacted by the pandemic. Refractory sales volumes started to gradually improve in Q4, with some regions returning to pre-pandemic levels notably Brazil. Demand for steel increased faster than supply in late 2020, and the region faced steel capacity constraints, particularly in Brazil, which saw strong export demand from Mexico, which necessitated the rebuilding of steel customer inventory levels.

The consolidation of the North and South American sales regions has resulted in multiple synergies, more effective inventory and account receivables management and the implementation of a volume initiative programme to increase market share with a specific focus on underserved product groups.

The solutions model is well advanced in the Americas, accounting for approximately 47% of total revenues. We are currently adapting business models with select customers and offering tailored solutions to match specific requirements and customer profiles. We have had a strong take up of digital solutions, with both Automated Process Optimisation (which uses artificial intelligence to predict refractory product service life) and Quick Check (a smart measurement solution using 3D scans to monitor lining wear measurements) being piloted by customers across the Americas.

We are working to increase our market position in flow control, with strong order pipelines and good levels of customer interest, in addition to positive results from a number of ongoing customer trials.

The Group has successfully implemented recycling initiatives in 2020. In North America, this includes promoting recycling solutions at customer sites to reduce environmental impact, generate increased revenues and strengthen relationships with customers. In South and Central America, the focus is predominantly on new refractory formulations developed using recycled raw materials, thereby replacing the need for virgin materials and significantly reducing carbon emissions.

China and East Asia

China, one of the Group's strategic focus markets, performed well in 2020, with revenue increasing by 41% on 2019 to €67 million (2019: €48 million), thanks to the Group's success in developing new business and increasing market share. China recovered from the impacts of the global pandemic far quicker than other markets, enabling the Company to leverage its strong regional production facilities, local R&D excellence and integrated sales channel in the region.

East Asia revenue decreased 24% to €100 million (2019: €131 million) reflecting the impact of COVID-19 on customer demand. Revenue declined in Indonesia, Malaysia, Philippines and Thailand.

China and East Asia were integrated into one organisational region during the year and the strengthened local and regional teams, with greater autonomy and authority, have proven to be effective. In 2020, the Company signed its

first two Full Line Service (FLS) contracts in China with two EAF plant. We expect to further grow our market share in this area.

As part of the Company's ongoing Production Optimisation Plan, the production of certain refractories has been transferred to China from other regions (such as Europe) to enable a more regional and specialised approach.

One of the key focus areas of the Chinese steel industry over the next five years is the introduction of more electric arc furnace (EAF) plants, with approximately 50 new EAF plants planned for completion by 2023 (representing circa 75Mt capacity). This provides a significant opportunity and focus for the Company, since EAF plants require more refractory products. In China, we have strategically grown certain product segments (such as EAF and flow control) and added value through our solutions business model during the Year.

The Group's digitalisation strategy is advancing well in China and we are rolling out a Manufacturing Execution Systems (MES) programme in Dalian.

The Company also initiated its first recycling solutions contract in with a Chinese steel customer during 2020.

India, Africa, West Asia

Total revenue for the Year in India, Africa and West Asia amounted to €287 million, down 22% on 2019 (2019: €366 million).

Following a solid performance in Q1 2020, a decrease occurred during the second quarter, which was particularly notable in the Indian market, as a result of COVID-19. Nevertheless, some regions, such as Saudi Arabia and Oman, outperformed during this time. Signs of a swift recovery were evident in India at the year end, and encouraging signs were noted in Africa and West Asia in late Q4 in terms of new orders.

In India, one of the Group's strategic focus markets, the government has recently introduced a 'Make in India' policy, which encourages companies to manufacture in India and incentivise local manufacturing investment. This represents a positive development for the Company, given our strong local production network and we aim to take advantage of this new policy by increasing local capacity. The Company is gaining competitive advantage by manufacturing products for the Indian market locally, which not only enables faster product development and concept implementation, but also provides working capital benefits for both our customers and the Company, as well as improving costs. The new Cuttack plant is operating well and the planned increase in capacity by the end of 2021 is expected to support local demand.

A new R&D centre, which will be fully operational in H2 2021, is being developed at our Bhiwadi plant in India to facilitate a greater understanding of local markets, providing significant value to our customers, and enable a faster and more unified technology transfer in the region, with significant cost competitiveness. In line with our key strategic priorities, its focus areas will be local raw material development, operational support for our three Indian plants, and problem solving and improvement projects for our customers.

Post year-end, a merger of the Group's Indian entities was approved by the Apex Court, NCLAT of India, enabling the simplification of the structure in this region. Organisational structures were also reviewed and amended across Africa and West Asia in 2020 to optimise, rationalise and implement a simpler framework.

Industrial Division

	2019	2019	2020	Change	Change
	Reported	(Constant		(reported)	(constant currency)
Industrial		currency)			
Revenue (€m)	904	881	676	(25)%	(23)%
Gross Profit (€m)	250	257	179	(29)%	(30)%
Gross margin	27.7%	29.1%	26.4%	(130)bps	(270)bps
Adj EBITA (€m)	155	165	85	(45)%	(48)%
Adj EBITA margin	17.2%	18.7%	12.6%	(460)bps	(610)bps
Industrial by segment by revenue (€m)	2019 Reported	2019 (Constant currency)	2020	Change (reported)	Change (constant currency)
Cement/Lime	344	336	273	(21)%	(19)%
Industrial Projects	560	545	403	(28)%	(26)%

The Industrial Division (which accounts for 30% of Group revenue) provides refractory solutions to customers across the cement, lime, glass, non-ferrous metals (NFM), aluminium 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.

Industrial Division revenues declined by 25% in 2020 to €676 million (2019: €904 million), impacted by the effects of the global pandemic, with customers postponing capital expenditure projects. Gross profit for the division was €179 million, down from €250 million in 2019 and gross margin declined over the same period by 130bps to 26.4%. This was predominantly due to the macro-economic uncertainty, as a result of COVID-19 and oil price volatility, which has precipitated a contraction in customer capital expenditure and the postponement of project decisions.

Cement, Lime and Industrial Projects were combined under one leadership team in 2020, creating a single organisational unit that focuses on refractory excellence and digitalisation, to enable the Company to continue leading in innovation and being the partner of choice of our customers.

Cement and Lime

Revenue for the year was €273 million, down 21% on 2019 (2019: €344 million). Cement and Lime accounted for 40% of total Industrial Division revenue in 2020 and 12% of Group revenue. Following solid performance in Cement and Lime for Q1 2020, reflecting the usual high seasonal demand during the annual repair cycle, Q2 and Q3 were negatively impacted by COVID-19, with a contraction in demand, leading to reduced production and some temporary closures of cement plants in certain regions. Performance started to improve in Q4 and the order intake for repair activity in Q1 2021 has been strong. Regional performance varied significantly depending on the relative impact of the COVID-19 pandemic on different geographies. The market in India reduced by circa 25% in 2020, whereas other markets remained more resilient. Market share remained largely stable, with some areas of improvement, such as in China, where RHIM now accounts for over a third of the market, against a backdrop of a shrinking cement market and lower clinker capacity. In Brazil, revenues were maintained at 2019 levels (in Euro terms) in spite of the significant impact of the pandemic and the weakness in the Brazilian Real, due to a record performance in Q1 2020.

Two key product groups in the cement industry have shown strong traction in 2020. Ankral Low Carbon (LC) products, which reduce environmental impact, have been rolled out selectively in Europe during the Year. Decarbonisation of the cement industry remains a dominant topic for producers. Following its launch by RHI Magnesita in 2019, the Ankral X series, which combines clinker melt resistance with flexibility, has seen excellent demand, representing the fastest product introduction in the Cement industry.

As part of our strategy to drive digitalisation, a digital emergency sales channel (the Cement Webshop) was launched with selected customers in 2020, affording visibility on stock for immediate shipment, enabling customers to access materials quickly and providing access to our products in emergency situations.

Industrial Projects

Industrial Projects, comprising NFM, aluminium, glass and energy, environment and chemicals, reported revenue of €403 million in 2020, representing a 28% decrease on 2019 (€560 million). The weaker revenue performance was largely due to COVID-19, which led to heavy project postponements in NFM and weaker metal production levels globally, resulting in some temporary customer plant closures, as well as significantly reduced refinery activity throughout the Year. The Glass segment was more resilient, but still experienced some project postponements in Q2. Industrial Projects accounted for 60% of total Industrial Division revenue in 2020 and 18% of Group revenue.

We have made progress in developing a broad product portfolio in different plants around the world, thereby ensuring supply stability for our customers. This is expected to further improve resilience in 2021 and beyond as we are able to provide products from facilities in Europe, Americas or Asia.

China saw its first customer uptake of the Company's innovative regenerator product for the glass industry (Innoreg) in 2020, which addresses challenges of thermal efficiency and lifetime, representing success in further expanding our product offering in this market.

In Europe we have successfully implemented Remote Assistance for customer inspection work in the glass and NFM segments. We also successfully installed our electro-magnetic level indication 'EMLI' sensor solutions (which measure metal slag level) with several NFM customers and have some further exciting developments in the pipeline.

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 Year-End 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 results at a constant currency

FY 2020 figures presented at constant currency represent FY 2019 reported figures translated at average 2020 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 income and expenses as presented in Consolidated Statement of Profit and Loss.

Adjusted earnings per share ("Adjusted 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, contract assets and contract liabilities. 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.

Return on invested capital

ROIC is calculated as adjusted net operating profit after tax (NOPAT), divided by total invested capital for the year. Invested capital is a sum of non-current assets including deferred tax assets, trade and other current receivables, inventories and income tax receivables less other non-current financial assets, deferred tax liabilities, trade and other current liabilities, income tax liabilities and current provisions. Adjusted net operating profit after tax (NOPAT) is calculated as sum of Adjusted EBITA, Amortisation expense and result from joint ventures less income taxes paid.

Liquidity

Liquidity is measured by adding up cash and cash equivalents as well as an unutilised credit facility amounting to €600.0 million.

Consolidated Statement of Financial Position

as of 31.12.2020

in€million	Note	31.12.2020	31.12.2019
ASSETS			
Non-current assets			
Goodwill	(10)	110.8	117.5
Other intangible assets	(11)	265.7	319.0
Property, plant and equipment	(12)	958.6	1,106.8
Investments in joint ventures and associates	(13)	16.3	19.5
Other non-current financial assets	(14)	14.5	15.4
Other non-current assets	(15)	26.6	39.5
Deferred tax assets	(16)	199.2	181.9
		1,591.7	1,799.6
Current assets			
Inventories	(17)	477.4	602.7
Trade and other current receivables	(18)	351.8	432.7
Income tax receivables	(19)	27.7	17.3
Other current financial assets	(20)	O.3	O.1
Cash and cash equivalents	(21)	587.2	467.2
Assets disposal groups	(5)	16.6	0.0
		1,461.0	1,520.0
		3,052.7	3,319.6

EQUITY AND LIABILITIES

Equity			
Share capital	(22)	49.5	49.5
Group reserves	(23)	596.6	774.4
Equity attributable to shareholders of RHI Magnesita N.V.		646.1	823.9
Non-controlling interests	(24)	20.0	20.8
		666.1	844.7
Non-current liabilities			
Borrowings	(25)	983.0	983.5
Other non-current financial liabilities	(26)	88.8	105.1
Deferred tax liabilities	(16)	45.0	54.0
Provisions for pensions	(27)	303.6	328.1
Other personnel provisions	(28)	70.5	75.8
Other non-current provisions	(29)	62.6	98.5
Other non-current liabilities	(30)	4.8	7.3
		1,558.3	1,652.3
Current liabilities			
Borrowings	(25)	131.5	71.5
Other current financial liabilities	(26)	44.0	31.9
Trade payables and other current liabilities	(31)	522.7	614.0
Income tax liabilities	(32)	25.8	35.4
Current provisions	(33)	86.4	69.8
Liabilities disposal groups	(5)	17.9	0.0
		828.3	822.6

3,052.7 3,319.6

Consolidated Statement of Profit or Loss

from 01.01.2020 to 31.12.2020

in € million	Note	2020	2019
Revenue	(34)	2,259.0	2,922.3
Cost of sales	(35)	(1,708.9)	(2,205.1)
Gross profit		550.1	717.2
Selling and marketing expenses	(36)	(110.9)	(126.2)
General and administrative expenses	(37)	(198.3)	(209.2)
Restructuring and write-down expenses	(38)	(113.8)	(112.1)
Other income	(39)	19.7	34.9
Other expenses	(40)	(26.2)	(31.3)
EBIT		120.6	273.3
Interest income	(41)	5.9	9.1
Interest expenses on borrowings		(20.1)	(28.4)
Net expense on foreign exchange effects and related derivatives	(42)	(42.8)	(17.2)
Other net financial expenses	(43)	(29.7)	(38.7)
Net finance costs		(86.7)	(75.2)
Share of profit of joint ventures and associates	(13)	7.6	1.5
Profit before income tax		41.5	199.6
Income tax	(44)	(13.9)	(50.8)
Profit after income tax		27.6	148.8
attributable to shareholders of RHI Magnesita N.V.		24.8	139.0
attributable to non-controlling interests	(24)	2.8	9.8
in €			
Earnings per share – basic	(51)	O.51	2.82
Earnings per share – diluted		0.50	2.81

Consolidated Statement of Comprehensive Income

from 01.01.2020 to 31.12.2020

in € million	Note	2020	2019
Profit after income tax		27.6	148.8
Currency translation differences			
Unrealised results from currency translation	(6)	(227.8)	(7.6)
Deferred taxes thereon	(44)	39.9	3.9
Current taxes thereon		3.7	2.4
Unrealised results from net investment hedge	(55)	15.8	(2.9)
Deferred taxes thereon		(2.0)	0.5
Current taxes thereon		(2.0)	0.2
Reclassification to profit or loss	(40)	0.3	3.7
Cash flow hedges			
Unrealised fair value changes	(54)	(3.6)	(7.4)
Deferred taxes thereon	(44)	0.9	1.9
Reclassification to profit or loss	(54)	0.0	(0.7)
Items that will be reclassified subsequently to profit or loss, if necessary		(174.7)	(6.0)
Remeasurement of defined benefit plans			
Remeasurement of defined benefit plans	(27)	(0.7)	(37.1)
Deferred taxes thereon	(44)	0.6	9.1
Share of other comprehensive income of joint ventures and associates	(13)	0.0	(O.1)
Items that will not be reclassified to profit or loss		(O.1)	(28.1)
Other comprehensive income after income tax		(174.8)	(34.1)
Total comprehensive income		(147.2)	114.7
attributable to shareholders of RHI Magnesita N.V.		(147.5)	103.4
attributable to non-controlling interests	(24)	0.3	11.3

Consolidated Statement of Cash Flows

from 01.01.2020 to 31.12.2020

in € million	Note	2020	2019
Cash generated from operations	(47)	366.6	470.4
Income tax paid less refunds		(47.6)	(67.8)
Net cash inflow from operating activities		319.0	402.6
Investments in property, plant and equipment and intangible assets		(156.9)	(156.1)
Investments in subsidiaries net of cash acquired		(8.5)	(O.5)
Investments in securities		0.0	(O.4)
Cash inflows from sale of subsidiaries net of cash disposed of		0.0	2.5
Cash inflows from the sale of property, plant and equipment		10.5	1.4
Cash inflows from the sale of securities and shares		0.0	40.9
Dividends received from joint ventures and associates		10.8	13.4
Investment subsidies received		0.0	0.2
Interest received	(49)	6.0	8.3
Cash inflows from non-current receivables		0.2	0.0
Net cash (outflow) from investing activities		(137.9)	(90.3)
Acquisition of treasury shares		(2.7)	(18.8)
Acquisition of non-controlling interests		0.0	(44.6)
Dividend payments to shareholders of the Group		(49.1)	(74.2)
Dividend payments to non-controlling interests		(1.1)	(1.3)
Proceeds from borrowings and loans		97.6	432.0
Repayments of borrowings and loans		(23.7)	(550.4)
Changes in current borrowings		7.4	(2.8)
Interest payments	(49)	(30.5)	(49.8)
Repayment of lease obligations		(15.8)	(14.3)
Interest payments from lease obligations		(1.3)	(1.2)
Cash flows from derivatives		1.5	(14.4)
Net cash (outflow) from financing activities	(48)	(17.7)	(339.8)
Total cash flow		163.4	(27.5)
Change in cash and cash equivalents		163.4	(27.5)
Cash and cash equivalents at beginning of year		467.2	491.2
Foreign exchange impact		(41.4)	3.5
Cash and cash equivalents at year-end ¹⁾	(21)	589.2	467.2

1) thereof shown under assets held for sale ${\in}\,$ 2.0 million

Consolidated Statement of Changes in Equity

from 01.01.2020 to 31.12.2020

Group reserves

Accum

Accumulated other comprehensive income

in € million	Share capital	Treasury shares	Additional paid-in capital	Mandatory reserve	Retained earnings	Cash flow hedges	Defined benefit plans	Currency translation	compreh income/e es rela disposal
Note	(22)	(23)	(23)	(23)	(23)	(23)	(23)	(23)	
31.12.2019	49.5	(18.8)	361.3	288.7	379.6	(11.0)	(145.6)	(79.8)	
Profit after income tax	-	-	-	-	24.8	-	-	-	
Currency translation differences	-	-	-	-	-	-	-	(177.3)	
Market valuation of cash flow hedges	-	-	-	-	-	(2.7)	-	-	
Remeasurement of defined benefit plans	-	-	_	-	_	-	(O.1)	-	
Other comprehensive income after income tax	-	-	-	-	-	(2.7)	(0.1)	(177.3)	
Total comprehensive income	-	-	-	-	24.8	(2.7)	(O.1)	(177.3)	
Dividends	_	-	_	-	(24.5)	-	-	-	
Shares repurchased	-	(2.7)	-	-	-	-	-	-	
Share-based payment expenses	-	-	-	-	(3.1)	-	-	-	
Transactions with shareholders	-	(2.7)	-	-	(27.6)	-	-	-	
31.12.2020	49.5	(21.5)	361.3	288.7	376.8	(13.7)	(145.7)	(257.1)	

Group reserves

Accumulated other comprehensive income

in € million	Share capital	Treasury shares	Additional paid-in capital	Mandatory reserve	Retained earnings	Cash flow hedges	Defined benefit plans	Currency translatior
Note	(22)	(23)	(23)	(23)	(23)	(23)	(23)	(23
31.12.2018	48.3	-	305.5	288.7	351.0	(5.0)	(114.2)	(73.8
Profit after income tax	-	-	-	-	139.0	-	-	-
Currency translation differences	-	-	-	-	-	-	-	(1.4
Market valuation of cash flow hedges	-	-	-	-	-	(6.1)	-	-
Remeasurement of defined benefit plans	-	-	-	-	-	-	(28.0)	-
Share of other comprehensive income of joint ventures and associates	_	_	_	_	_	_	(O.1)	-
Other comprehensive income after income tax	-	-	_	-	-	(6.1)	(28.1)	(1.4
Total comprehensive income	-	-	-	-	139.0	(6.1)	(28.1)	(1.4
Dividends	-	_	-	_	(98.8)	-	_	-
Issue of ordinary shares related to the integrated tender offer of Magnesita	1.2	_	55.8	_	_	_	_	-
Shares repurchased	-	(18.8)	-	-	-	-	_	-
Disposal of benefit plans	-	_	-	-	1.2	-	(1.2)	-
Acquisition in non-controlling interests without change of control	_	_	_	_	(16.9)	O.1	(2.1)	(4.6
Share-based payment expenses	-	_	-	-	4.1	-	_	-
Transactions with shareholders	1.2	(18.8)	55.8	-	(110.4)	0.1	(3.3)	(4.6
31.12.2019	49.5	(18.8)	361.3	288.7	379.6	(11.0)	(145.6)	(79.8

Notes to the Consolidated Financial Statements 2020

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") are 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, with a second listing on the Vienna Stock Exchange.

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.

For the following German entities the exemption clause pursuant to section 264 paragraph 3 HGB (German commercial Code) was applied: RHI Urmitz AG & Co. KG (Koblenz), Magnesita Refractories GmbH (Wiesbaden), RHI Dinaris GmbH (Wiesbaden), RHI GLAS GmbH (Wiesbaden), RHI Magnesita Services Europe GmbH (Cologne), RHI Refractories Site Services GmbH (Wiesbaden), RHI Sales Europe West GmbH (Coblenz), RHI Magnesita Deutschland AG (Wiesbaden).

The Consolidated Financial Statements for the period from 1 January 2020 to 31 December 2020 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.

Update of disclosures related to significant uncertainties and going concern linked to COVID-19

The global economic downturn due to the COVID-19 pandemic during 2020 resulted in a reduction of revenue for the Group as the economic activities in the Steel and Industrial Segments are closely linked to the global economy. The Group has considerable financial resources together with long-standing relationships with a number of customers, suppliers and funding providers across different geographic areas and industries. The forecasts and projections, taking account of reasonably possible changes in trading performance show that the Group is able to operate within the level of its current bank facilities without the need to renew facilities expiring in the next 12 months. As a consequence, the directors believe that the Group is well placed to manage its business risks successfully despite the uncertainties inherent in the current economic outlook. After making enquiries, the directors have a reasonable expectation that the Company and the Group has adequate resources to continue in operational existence for the foreseeable future.

The preparation of the Consolidated Financial Statements in accordance 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 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 7 March 2021 and is subject to adoption at the Annual General Meeting of shareholders on 10 June 2021.

2. Initial application of new financial reporting standards

In 2020, 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 2020.

Standard	Title	Publication (EU endorsement) ¹⁾	Effects on RHI Magnesita Consolidated Financial Statements
Amendments of standards			
IAS 1, IAS 8	Definition of Material	31.10.2018 (29.11.2019)	No material effect
IFRS 3	Business Combinations	22.10.2018 (21.04.2020)	No effect
Various	Amendments to References to the Conceptual Framework in IFRS Standards	29.03.2018 (29.11.2019)	No effect
IFRS 16	Amendment to IFRS 16 Leases Covid 19-Related Rent Concessions	28.05.2020 (29.10.2020)	No effect
IFRS9, IAS 39, IFRS7	Amendments to IFRS 9, IAS 39 and IFRS 7: Interest Rate Benchmark Reform	26.09.2019 (15.01.2020)	No material effect

1) According to EU Endorsement Status Report of 12.02.2021.

IFRS 16 "Amendment to IFRS 16 Leases Covid-19-Related Rent Concessions"

The amendment permits lessees, as a practical expedient, not to assess whether particular rent concessions occurring as a direct consequence of the COVID-19 pandemic are lease modifications and instead to account for those rent concessions as if they are not lease modifications.

The practical expedient only applies to rent concessions occurring as a direct consequence of the COVID-19 pandemic and only if the following conditions are met cumulatively:

- The change in lease payments results in revised consideration for the lease that is substantially the same as, or less than, the consideration for the lease immediately preceding the change;
- Any reduction in lease payments affects only payments due on or before 30 June 2021; and

• There is no substantive change to other terms and conditions of the lease.

RHI Magnesita has evaluated the effect of applying the amendment to IFRS 16 Leases "COVID-19-Related Rent Concessions" with the conclusion that the company will not make use of the practical expedient and that there is no effect to be expected to the Group.

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 2020. 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 ¹⁾	Mandatory application for RHI Magnesita	Expected effects on RHI Magnesita Consolidated Financial Statements
New standards and in	terpretations			
IFRS 14	Regulatory Deferral Accounts	30.01.2014	No EU endorsement	Not relevant
IFRS 17	Insurance Contracts	18.05.2017	01.01.2023	Not relevant
Amendments of stand	lards			
IAS1	Classification of Liabilities as Current or Non-current	23.01.2020	01.01.2023	No material effects expected
IFRS 3, IAS 16, IAS 37	Amendments to IFRS 3 Business Combinations; IAS 16 Property Plant and Equipment; IAS 37 Provisions. Contingent Liabilities and Contingent Assets as well as Annual Improvements 2018–2020	14.05.2020	01.01.2022	No material effects expected
IFRS 4	Amendments to IFRS 4 Insurance Contracts – deferral of IFRS 9	25.06.2020	01.01.2021	Not relevant
IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16	Interest Rate Benchmark Reform – Phase 2	27.08.2020	01.01.2021	No material effects expected
IAS 1	Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2: Disclosure of Accounting policies	12.02.2021	01.01.2023	No material effects expected
IAS 8	Amendments to IAS 8 Accounting policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates	12.02.2021	01.01.2023	No material effects expected

1) According to EU Endorsement Status Report of 12.02.2021.

IFRS 7, IFRS 9, IAS 39, IFRS 16, IFRS 4 "Interest Rate Benchmark Reform"

In 2019 RHI Magnesita has elected to early adopt the Phase 1 amendments to IAS 39 and IFRS 7 Interest Rate Benchmark Reform (IBOR) issued in September 2019 and is still applying the Phase 1 amendments in the financial statements of 2020. 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 Phase 1 amendments provide temporary relief from applying specific hedge accounting requirements to hedging relationships directly affected by the IBOR reform by assuming that the interest rate benchmark is not altered as a result of 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.

In August 2020 the Phase 2 amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 were issued. The Phase 2 amendments focus on the treatment of accounting impacts arising from the actual transition from the currently used to an alternative benchmark interest. Due to the remaining uncertainty regarding the alternative benchmark to be used, RHI Magnesita has elected not to adopt the Phase 2 amendments early. 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).
The precise structure of the replacement of the USD LIBOR remains somewhat uncertain after 2021, although it might be possible that the use of LIBOR could be extended for a certain period as there is still ongoing discussion on its replacement rate. The most likely alternative benchmark interest, the Secured Overnight Financing Rate or SOFR, does not yet have term rates available. This uncertainty regarding the replacement of USD LIBOR represents a possible source of ineffectiveness because this might affect the hedged item (the floating-rate debt) and the hedging instrument (the interest rate swap used to hedge the debt) at a different time and have a different financial impact on the hedged item and the hedging instrument. Management expects that the hedged debt will move to the same alternative benchmark rate as the swap as a most likely scenario. Therefore, no material effect on the Group is expected.

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 €290.3 million and its corresponding underlying hedged item, a floating-rate debt, both maturing in 2023, would most likely remain 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 continuing to closely monitor the developments of the IBOR reform and is in regular communication with the banks to minimise any mismatches going forward.

4. Other changes in comparative information

Consolidated Statement of Financial Position

Suppliers with debit balance and creditors with credit balance have been repositioned within trade and other current receivables amounting to €5.0 million and trade payables and other current liabilities amounting to €5.0 million. Previously shown under other current receivables respectively other current payables, they are now shown within trade receivables and trade payables in order to improve disclosure and display their operative character. The comparative figures have been adjusted accordingly.

Segment reporting

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. The assets that contribute to the raw material production for internal use are now allocated to the segment based on their relative revenue contribution. This results in a more transparent reporting of the revenue generated by the segments' assets. The comparative figures for segment assets as well as the segmentation for depreciation and amortisation charges have been adjusted accordingly, resulting in an increase in property, plant and equipment, goodwill and other intangible assets of €213.2 million as well as an increase in depreciation and amortisation charges of €16.6 million in the Steel segment.

5. 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
RHI Magnesita Deutschland AG, 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 individually 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 in 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 in 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 result in 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 ceases.

Acquisition of MORCO

On 29 January 2020 the Group acquired 100% of shares in Missouri Refractories Co. Inc. (MORCO) in order to strengthen its position in the North American refractory market. The purchase price amounted to €8.8 million and was paid in cash. The site is strategically located in the Midsouth of the United States, a region that is 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 fair values of the assets and liabilities recognised as a result of the acquisition are presented as follows:

in € million	29.01.2020
Property, plant and equipment	2.4
Inventories	1.4
Trade and other current receivables	1.8
Cash and cash equivalents	O.3
Deferred tax liabilities	(O.1)
Trade payables and other current liabilities	(0.8)
Net assets acquired	5.0
Goodwill	3.8
Purchase price	8.8

The goodwill created in the course of the acquisition reflects the expected strategic advantage for the Group in the North American refractory market and is allocated to the Cash Generating Unit Linings. The goodwill cannot be deducted for tax purposes.

The acquisition costs related to the acquisition amounted to ≤ 0.1 million and are recognised in other expenses.

The fair value of trade and other current receivables acquired amounts to €1.8 million and corresponds to the gross contractual amount for trade and other current receivables.

In the period from February to December 2020, MORCO generated revenue of \notin 8.2 million and profit after income tax of \notin 1.1 million. If the acquisition had been carried out at 1 January 2020, consolidated revenue would have amounted to \notin 9.0 million and profit after income tax to \notin 1.2 million.

IFRS 5 Disposal Groups

In line with the Group's raw material strategy, the Group entered into an agreement in December 2020 to sell its ownership interest in RHI Normag AS. Porsgrunn, Norway and Premier Periclase Limited, Drogheda. The transaction does not result in the discontinuation of a major line of business or a geographical area of operations, and, therefore, does not qualify as a discontinued operation. The assets and liabilities of the disposal group are consequently presented separately from other assets and liabilities in the Statement of Financial Position in accordance with IFRS 5. The sale was completed on 1 February 2021 (see Note 63).

The following assets and liabilities were reclassified as held for sale in relation to the disposal group as at 31 December 2020:

in € million	31.12.2020
Non-current assets	5.6
Inventories	7.0
Trade receivables and other current assets	2.0
Cash and cash equivalents	2.0
Assets classified as held for sale	16.6
Non-current liabilities	9.4
Current liabilities	8.5
Liabilities directly associated with assets classified as held for sale	17.9

A write-down expense of €18.7 million was recognised in respect to the non-current assets of the disposal group upon classification as held for sale, which was determined by reference to the fair value of the consideration less cost of disposal (Level 3). Write-down expenses are recorded in restructuring costs in the Consolidated Statement of Profit or Loss. Of these losses, €4.6 million relate to the reportable segment Steel and €14.1 million relate to the reportable segment Industrial.

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 possibilities (e.g. through seats in the supervisory board) to influence the company's financial and operating policy decisions it has significant influence over the investee.

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 carrying amount of investments accounted for using the equity method is adjusted each year to reflect the change in 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 upon 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, an impairment loss is determined as the difference between the recoverable amount and the carrying amount of the joint ventures and associates and is 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.

6. Foreign currency translation

Functional currency and presentation currency

The Consolidated Financial Statements are presented in Euro, which represents the functional and presentation currency of RHI 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 denominated in foreign currency are carried at historical rates.

If foreign companies are deconsolidated, the currency translation differences are recycled to 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:

			Closing rate		Average rate ¹⁾
Currencies	1€=	31.12.2020	31.12.2019	2020	2019
Argentine Peso	ARS	103.47	67.09	79.35	52.94
Brazilian Real	BRL	6.38	4.51	5.83	4.41
Canadian Dollar	CAD	1.57	1.46	1.53	1.49
Chilean Peso	CLP	875.28	842.57	904.32	792.03
Chinese Renminbi Yuan	CNY	8.03	7.81	7.89	7.73
Indian Rupee	INR	89.83	79.90	84.13	78.84
Mexican Peso	MXN	24.45	21.19	24.48	21.74
Norwegian Krone	NOK	10.50	9.88	10.76	9.86
Pound Sterling	GBP	0.90	O.85	0.89	0.88
Swiss Franc	CHF	1.08	1.09	1.07	1.11
South African Rand	ZAR	17.97	15.78	18.72	16.24
US Dollar	USD	1.23	1.12	1.14	1.12

1) Arithmetic mean of the monthly closing rates.

7. 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 in the Statement of Profit or Loss immediately after a reassessment of the initial measurement 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 straightline basis over their expected useful life.

Research costs are expensed in the year incurred and included in 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 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. Amortisation is 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 overhead costs. 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 useful lives of the Group's main classes of intangible assets:

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 construction cost, less accumulated depreciation and accumulated impairment losses. 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.

Construction costs of assets comprise direct costs as well as a proportionate share of capitalisable overhead costs and borrowing costs. If borrowed funds are directly attributable to an investment, borrowing costs are capitalised as production costs. If no direct connection between an investment and borrowed funds can be demonstrated, 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 recognition criteria are a legal or constructive obligation towards a third party and the ability to reliably estimate future cost.

Stripping costs incurred in the development phase to gain access to mines are recognised as a separate other non-current asset. These capitalised prepaid expenses are subsequently depreciated by reference to the actual depletion of the mineral resources of the mine during the production phase.

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.

RHI Magnesita makes use of the following practical expedients of IFRS 16:

- 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.

Since 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 principal payments on the liability and finance cost. The finance cost is charged to profit or loss over the lease term 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 payments 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 2.50%.

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.

Payments associated with short-term leases of equipment and vehicles and all leases of low-value assets are recognised 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. Expenses for short-term, low-value and variable lease payments in 2020 amount to \leq 4.5 million (31.12.2019: \leq 9.2 million). The total cash outflow for leases in 2020 amounts to \leq 21.7 million (31.12.2019: \leq 24.6 million).

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

RHI Magnesita Group reviewed its estimates regarding usage and physical wear and tear of property, plant and equipment on plants and production sites. This reassessment resulted in a decrease of depreciation expenses by €10.2 million in the current reporting period and will continue to result in decreased depreciation expenses in future periods, although quantifying this effect for future periods is impracticable.

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, 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 its 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 in profit or loss.

In the case of impairment losses related to cash-generating units (CGUs) to which goodwill is allocated, the goodwill is reduced first, but not exceeding the accumulated depreciated book value had the impairment not taken place. If the impairment loss exceeds the carrying amount of goodwill, the difference is apportioned proportionately to the remaining non-current tangible and intangible assets of the CGU on the basis of their carrying amounts. Reversals of impairment losses recognised on goodwill are not permitted and are therefore not considered.

If there is an indication for an impairment of a specific asset or a group of assets, only this specific asset will be tested for impairment. The recoverable amount is determined as the asset's fair value. If the fair value is lower than the carrying amount, an impairment loss is recorded in EBIT. If impairment losses arise due to restructuring, they are recorded 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. CGUs 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 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.

Major assumptions

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 assumptions were updated considering the latest developments of the COVID-19 pandemic. RHI Magnesita expects an improvement in refractory volume across all geographies and businesses as customer markets improve. Expectations consider the different speed of recovery for the relevant CGUs. Uncertainty regarding future developments arising from COVID-19 and its consequences to economic outlooks, were factored into the cash flow prognosis taking into account potentially lower levels in customer demand and catch-up effects in the mid-term. The group expects to arrive at pre-crisis revenue and cash flow levels in 2023. Furthermore, the effects from the fixed costs reduction measures have been considered.

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 7.4% and 9.5% in the year 2020. In the previous year, the discount rates ranged between 5.4% and 8.9%.

Composition of estimated future cash flows

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

A simplified statement of cash flows serves to determine the cash flows on the basis of strategic business and financial planning. The forecasts include cash flows from future maintenance investments. Expansion investments are only taken into account in the estimated future cash flows for impairment testing 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. Cash flows for other expansion investments are excluded from the DCF model; this applies in particular to expansion investments that have been decided on but that have 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 2021 Budget and Long-Term Plan 2022 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.

			2020			2019
	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	8.2%	0.9%	84.2	7.9%	0.9%	88.6
Steel Division – Flow Control	8.1%	0.9%	25.0	7.7%	0.9%	27.2

The remaining immaterial portion of goodwill amounting to ≤ 1.6 million (31.12.2019: ≤ 1.7 million) is allocated to the remaining CGUs, all of them having sufficient headroom.

Result of impairment test

Based on the impairment test conducted at 31 December 2020, the recoverability of the assets was demonstrated for all CGUs, except for the CGU Norway, where the property, plant and equipment of CGU Norway has been fully impaired as a result of impairment testing in previous years.

As in the previous year, no reversals of impairments were made in the financial year 2020.

Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. In general, financial instruments can be classified to be measured subsequently as at amortised cost, at fair value through profit or loss or at fair value through other comprehensive income. Classification of financial assets depends on the contractual terms of the cash flows as well as on the entity's business model for managing the financial assets. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Further information on the Group's financial assets and liabilities, as well as on the fair value measurement is provided under Note (53).

Other financial assets and liabilities

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 and a financial liability relating to the termination of an energy supply contract.

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 assets, 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 group's investment in debt securities is subsequently measured at fair value through profit and loss, as the contractual terms of cash flows do not solely include payments of principal and interest.

The Group's investments in equity securities are of minor importance and are subsequently measured at fair value through profit or loss, since the irrevocable option for subsequent measurement at fair value through OCI was not exercised.

Shares in non-consolidated subsidiaries (RHI Magnesita exercises control but the subsidiary is not-fully consolidated due to materiality reasons), shares 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 do not meet the hedge accounting requirements, must be carried 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 of either contracting party as well as interest rate swaps. Derivative financial instruments relating to purchase obligations are accounted for in accordance with IFRS 9 and concern long-term power supply contracts which provide for the purchase of fixed amounts of electricity at fixed prices. The measurement is made taking into account 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 these electricity derivatives 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 of either contracting party 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, including forward premiums and discounts. Unrealised valuation gains or losses and results from the realisation are recognised in the Statement of Profit or Loss in net expense of foreign exchange effects and related derivatives. The under-lying transactions for the derivatives are carried at amortised cost.

For derivative financial instruments, which are designated in an effective hedging relationship in accordance with IFRS 9, the provisions regarding hedge accounting are applied. RHI Magnesita has concluded 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 recycled to the Statement of Profit or Loss. Ineffective parts of the cash flow hedges are recognised immediately in the Statement of Profit or Loss. If the hedged 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 for puttable non-controlling interests is measured at amortised cost and changes are recorded in net finance costs.

Impairment of financial assets

Impairment of certain financial assets 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 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 of 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, taxloss 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 at 34.0%. Tax rates from 12.5% to 34.0% (31.12.2019: 12.5% to 34.0%) 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 progress are valued at fixed and variable production cost. The 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 associated with the financial assets and does not retain control over them.

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

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 in accordance with 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. 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 by way of external funds, the pension obligation according to the projected unit credit method is netted against the fair value of the plan assets. If the plan assets are not sufficient to cover the obligation, the net obligation is recognised as a provision 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 presented as an other non-current asset on the face of the statement of financial positions.

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, sharebased 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 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.

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 employees to termination benefits are filed with the statutory termination benefit scheme, while the continuous contributions are treated as defined contribution pension plans and included in the 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 years of uninterrupted 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.

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 goods 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 asset retirements 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. 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, income and expenses

Revnue from contracts with customers

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 applies 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 turnover 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 to provide services are capable of being distinct and separately identifiable in the context of the contract. Accordingly, the allocation of the transaction price 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 (9). 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 comes first). 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.

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.

Further income and expenses

Expenses are recognised in 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.

Current 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.

Since 2020 RHI Magnesita N.V., Vienna branch, Austria, acts as the head of a corporate tax group in Austria. Until 31 December 2019 RHI Magnesita GmbH. Vienna. Austria, acted as the head of a corporate tax group in Austria. 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, RHI Magnesita Deutschland AG, 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.

8. 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.

9. 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 €1,222.5 million at 31 December 2020 (31.12.2019: €1,424.0 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 2020 or by minus 10% in the contribution margin would not result in an impairment of goodwill recognised (carrying amount 31.12.2020: €110.8 million, 31.12.2019: €117.5 million) nor in an impairment charge to intangible assets with indefinite useful lives (carrying amount at 31.12.2020: €1.8 million and 31.12.2019: €1.8 million).

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).

			31.12.2020		31.12.2019	
in € million	Change of assumption in percentage points or years	Termination Pension plans benefits Pension plans			Termination benefits	
Present value of the obligations		523.3	46.4	557.9	52.0	
Interest rate	+0.25	(16.2)	(1.3)	(17.1)	(1.4)	
	(O.25)	16.9	1.4	17.4	1.4	
Salary increase	+0.25	1.6	1.3	1.1	1.4	
	(O.25)	(1.5)	(1.3)	(1.2)	(1.3)	
Pension increase	+0.25	12.5	-	11.6	-	
	(O.25)	(11.0)	-	(11.4)	-	
Life expectancy	+1 year	21.3	-	21.0	-	
	(1) year	(20.7)	-	(20.7)	-	

These changes would have no immediate effect on the result of the period as remeasurement gains and losses are recorded in other comprehensive income without impact on profit or loss. The assumptions regarding the interest rate are reviewed semi-annually; all other assumptions are reviewed at the end of the year.

Other provisions

The recognition and measurement of other provisions totalling \leq 145.7 million (31.12.2019: \leq 168.3 million) were based on the best possible estimates using the information available at the reporting date. The estimates take into account the underlying legal relationships and are performed by internal experts or, when appropriate, also by external experts. Despite the best possible assumptions and estimates, cash outflows expected at the reporting day may deviate from actual cash outflows. As soon as additional information is available, the estimates made are reviewed and provisions are also adjusted.

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 ≤ 154.2 million (31.12.2019: ≤ 127.9 million) would have to be increased by ≤ 0.3 million (31.12.2019: ≤ 1.7 million) or reduced by ≤ 0.3 million).

NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

10. Goodwill Goodwill developed as follows:

in € million	2020	2019
Carrying amount at beginning of the year	117.5	117.4
Additions initial consolidation	3.8	0.0
Currency translation	(10.5)	O.1
Carrying amount at year-end	110.8	117.5

11. Other intangible assets Other intangible assets changed as follows in the financial year 2020:

in € million	Mining rights	Customer relationship	Internally generated intangible assets	Other intangible assets	Total
Cost at 31.12.2019	169.1	109.3	52.4	134.1	464.9
Currency translation	(36.0)	(14.2)	(0.3)	(8.9)	(59.4)
Additions	0.0	0.0	9.9	3.1	13.0
Retirements and disposals	0.0	0.0	0.0	(11.0)	(11.0)
Disposal group IFRS 5	0.0	0.0	0.0	(O.2)	(0.2)
Reclassifications	0.0	0.0	0.0	4.2	4.2
Cost at 31.12.2020	133.1	95.1	62.0	121.3	411.5
Accumulated amortisation 31.12.2019	8.0	25.2	37.1	75.6	145.9
Currency translation	(1.7)	(3.4)	(O.1)	(3.6)	(8.8)
Amortisation charges	2.2	6.1	3.7	7.4	19.4
Impairment charges	0.0	0.0	0.0	0.3	0.3
Retirements and disposals	0.0	0.0	0.0	(10.8)	(10.8)
Disposal group IFRS 5	0.0	0.0	0.0	(O.2)	(0.2)
Accumulated amortisation 31.12.2020	8.5	27.9	40.7	68.7	145.8
Carrying amounts at 31.12.2020	124.6	67.2	21.3	52.6	265.7

Other intangible assets changed as follows in the previous year:

		Customer	Internally generated	Other intangible	
in € million	Mining rights	relationship	intangible assets	assets	Total
Cost at 31.12.2018	169.4	108.7	50.5	129.2	457.8
Currency translation	(O.3)	0.6	O.1	0.6	1.O
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	(O.1)	O.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

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

The customer relations of Magnesita have a carrying amount of €66.9 million (31.12.2019: €83.6 million) and a remaining useful life of 8 to 12 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 €21.1 million (31.12.2019: €23.0 million) and a remaining useful life of 17 to 57 years.

There are no restrictions on the sale of intangible assets.

12. Property, plant and equipment

Property, plant and equipment developed as follows in the year 2020 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 31.12.2019	641.3	36.6	1,210.4	321.6	173.5	76.1	2,459.5
Currency translation	(50.8)	(2.1)	(92.3)	(9.2)	(17.1)	(7.6)	(179.1)
Additions	6.3	2.9	13.8	6.7	105.2	24.5	159.4
Additions initial consolidation	2.0	0.0	0.3	O.1	0.0	0.0	2.4
Reassessment / Modification of leases (IFRS 16)	0.0	0.0	0.0	0.0	0.0	2.5	2.5
Retirements and disposals	(5.4)	(O.3)	(61.2)	(10.1)	0.0	(8.6)	(85.6)
Disposal group IFRS 5	(47.8)	0.0	(57.6)	(25.0)	(1.9)	(10.1)	(142.4)
Reclassifications	16.1	(O.2)	26.0	46.8	(94.8)	0.0	(6.1)
Cost at 31.12.2020	561.7	36.9	1,039.4	330.9	164.9	76.8	2,210.6
Accumulated depreciation 31.12.2019	283.3	23.6	777.1	237.8	6.0	24.9	1,352.7
Currency translation	(6.6)	(O.6)	(37.8)	(4.9)	(0.3)	(2.8)	(53.0)
Depreciation charges	12.3	1.1	70.6	20.3	0.0	16.O	120.3
Impairment charges	11.2	0.0	26.0	5.1	2.7	1.5	46.5
Retirements and disposals	(2.8)	(O.3)	(57.2)	(7.5)	0.0	(7.1)	(74.9)
Disposal group IFRS 5	(46.3)	0.0	(54.0)	(24.9)	(1.5)	(10.1)	(136.8)
Reclassifications	2.2	0.0	(4.2)	5.0	(5.8)	0.0	(2.8)
Accumulated depreciation 31.12.2020	253.3	23.8	720.5	230.9	1.1	22.4	1,252.0
Carrying amounts at 31.12.2020	308.4	13.1	318.9	100.0	163.8	54.4	958.6

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	(O.2)	1.7	0.9	(O.5)	0.5	2.8
Additions	3.4	(1.O)	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)	(O.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	O.1	0.0	1,171.9
Currency translation	0.5	(O.2)	1.5	0.9	0.0	O.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)	(O.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	3 58.0	13.0	433.3	83.8	167.5	51.2	1,106.8

The item prepayments made and plant under construction includes plant under construction with a carrying amount of €147.6 million (31.12.2019: €163.5 million), with the sinterplant and the brickplant in Chizhou, China, representing the largest investment project under construction in 2019 and the expansion of a dolomite plant in Austria, representing the largest investment project under construction in 2020. Information on impairment is provided under Note (9).

There are no restrictions on the sale of property, plant and equipment.

The Right-of-use assets per category developed as follows as of 31 December 2020:

in € million	Right-of-use assets land and buildings	Right-of-use assets technical equipment and machinery	Right-of-use assets other equipment, furniture and fixtures	Total
Cost at 31.12.2019	39.5	30.0	6.6	76.1
Currency translation	(2.0)	(5.2)	(O.4)	(7.6)
Additions	13.3	10.2	1.O	24.5
Reassessment / Modification of leases (IFRS 16)	2.8	0.0	(O.3)	2.5
Retirements and disposals	(3.4)	(4.1)	(1.1)	(8.6)
Disposal group IFRS 5	(9.8)	(O.2)	(O.1)	(10.1)
Cost at 31.12.2020	40.4	30.7	5.7	76.8
Accumulated depreciation 31.12.2019	15.5	7.0	2.4	24.9
Currency translation	(1.1)	(1.4)	(O.3)	(2.8)
Depreciation charges	7.2	6.7	2.1	16.0
Impairment charges	0.0	1.3	0.2	1.5
Retirements and disposals	(2.5)	(3.6)	(1.O)	(7.1)
Disposal group IFRS 5	(9.8)	(O.2)	(O.1)	(10.1)
Accumulated depreciation 31.12.2020	9.3	9.8	3.3	22.4
Carrying amounts at 31.12.2020	31.1	20.9	2.4	54.4

The Right-of-use assets per category developed as follows as of 31 December 2019:

in€million	Right-of-use assets land and buildings	Right-of-use assets technical equipment and machinery	Right-of-use assets other equipment, furniture and fixtures	Total
Cost at 31.12.2018	0.0	0.0	0.0	0.0
Initial recognition IFRS 16	40.0	17.O	5.0	62.0
Currency translation	0.2	0.2	O.1	0.5
Additions	3.2	12.9	1.6	17.7
Reassessment / Modification of leases (IFRS 16)	(3.9)	0.0	0.0	(3.9)
Retirements and disposals	0.0	(O.1)	(O.1)	(0.2)
Cost at 31.12.2019	39.5	30.0	6.6	76.1
Accumulated depreciation 31.12.2018	0.0	0.0	0.0	0.0
Currency translation	0.0	0.0	0.1	O.1
Depreciation charges	5.1	7.0	2.4	14.5
Impairment charges	10.4	O.1	0.0	10.5
Retirements and disposals	0.0	(O.1)	(O.1)	(O.2)
Accumulated depreciation 31.12.2019	15.5	7.0	2.4	24.9
Carrying amounts at 31.12.2019	24.0	23.0	4.2	51.2

Further detail on IFRS 16 related information is provided under Note (7) and (26).

13. 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	31.12.2020	31.12.2019
Investments in joint ventures	16.3	19.5
Carrying amount at year-end	16.3	19.5

Joint ventures

The RHI Magnesita Group holds a share of 50% (2019: 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	2020	2019
Revenue	32.1	39.4
Profit before income tax	14.6	20.0
Depreciation	1.6	1.5
Interest expense	0.0	O.1
Other comprehensive (loss)/income	(O.1)	(O.3)
Total comprehensive income	14.5	19.7

Income taxes on the share of profit of MAGNIFIN are ultimately recognised by the head of the tax group, RHI Magnesita N.V., Vienna, Austria, due to the legal form of the joint venture and transferred accordingly to Radex Vertriebsgesellschaft m.b.H. Vienna, Austria (2019: Veitscher

Vertriebsgesellschaft m.b.H Vienna), in accordance with the provisions of the tax compensation agreement. The taxable profit of MAGNIFIN for 2020 was offset by 100% with non-capitalised net operating losses (tax losses incurred prior to the tax group) by Radex Vetriebsgesell-schaft m.b.H and, therefore, there is no income tax recognised on this share of profit for 2020 (2019: ≤ 2.5 million). Radex Vetriebsgesell-schaft m.b.H has capitalised all remaining net operating losses due to the positive taxable results forecast in the future derived from MAGNIFIN.

The net assets of MAGNIFIN are shown in the table below:

in € million	31.12.2020	31.12.2019
Non-current assets	7.7	8.3
Current assets (without cash and cash equivalents)	9.3	14.7
Cash and cash equivalents	12.3	13.4
Non-current liabilities and provisions	(3.9)	(3.9)
Current provisions	(1.1)	(1.2)
Trade payables and other current liabilities	(2.7)	(3.2)
Net assets	21.6	28.1

The movement in the carrying amount of the share in MAGNIFIN in the RHI Magnesita's Consolidated Financial Statements is shown below:

in € million	2020	2019
Proportional share of net assets at beginning of year	14.1	14.3
Share of profit	7.7	10.5
Share of other comprehensive income (remeasurement losses)	(O.1)	(O.1)
Dividends received	(10.9)	(10.5)
Other changes in value	O.1	(O.1)
Proportional share of net assets at year-end	10.9	14.1
Goodwill	4.9	4.9
Carrying amount of investment at year-end	15.8	19.0

In the course of the acquisition of Magnesita in 2017 the Group acquired interests in an immaterial joint venture with a carrying amount of $\notin 0.5$ million as of 31 December 2020 (31.12.2019: $\notin 0.5$ million). The Group's share of the profit after income tax, other comprehensive income and total comprehensive income in 2020 amounts to less than $\notin 0.1$ million (2019: less than $\notin 0.1$ 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 2020 (31.12.2019: ≤ 0.0 million). The Group's share of the profit after income tax and total comprehensive income for 2020 amounts to ≤ 0.0 million. In 2019 the Group's share of the profit after income tax and total comprehensive income amounted to ≤ 0.7 million.

In 2019 the Group 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 was fully written off, which resulted in a €9.6 million impairment in 2019, shown in result of joint ventures and associates.

The other immaterial associated company Krosaki Magnesita Refractories has been liquidated in March 2020.

14. Other non-current financial assets

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

in € million	31.12.2020	31.12.2019
Interests in subsidiaries not consolidated	0.6	0.7
Marketable securities and shares	13.5	13.8
Other non-current financial receivables	0.4	0.9
Other non-current financial assets	14.5	15.4

Accumulated impairments on investments, securities and shares amounted to €3.7 million (31.12.2019: €3.5 million).

15. Other non-current assets

Other non-current assets include the following items:

in € million	31.12.2020	31.12.2019
Tax receivables	14.5	27.4
Prepaid stripping costs	8.4	6.9
Judicial deposits	2.9	4.5
Plan assets from overfunded pension plans	0.2	0.2
Prepaid expenses	0.6	O.5
Other non-current assets	26.6	39.5

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.

16. Deferred taxes

Deferred taxes are related to the following significant balance sheet items and loss carryforwards:

	31.12.202	0	2020	2020 31.12.2019		2020 31.12.2019 20		2019
in € million	Deferred tax assets	Deferred tax liabilities	(Expense)/Income	Deferred tax assets	Deferred tax liabilities	(Expense)/Income		
Property, plant and equipment, intangible assets	36.5	117.4	11.2	26.5	136.4	30.2		
Inventories	20.7	3.9	(5.5)	27.8	3.5	(6.0)		
Trade receivables, other assets	25.1	4.1	20.8	21.0	11.7	8.5		
Pensions and other personnel provisions	70.5	O.8	(5.3)	78.7	0.0	(1.9)		
Other provisions	26.3	0.4	11.8	25.2	5.5	(4.8)		
Trade payables, other liabilities	24.8	11.7	(36.6)	24.2	5.2	3.0		
Tax loss carried forward	88.6	0.0	16.8	86.8	0.0	(7.1)		
Offsetting	(93.3)	(93.3)		(108.3)	(108.3)			
Deferred taxes	199.2	45.0	13.2	181.9	54.0	21.9		

As of 31 December 2020, subsidiaries that generated tax losses in the past year or the previous year recognised net deferred tax assets on temporary differences and tax loss carryforwards of \leq 116.3 million (31.12.2019: \leq 61.5 million). Deferred tax assets have been recognised because the companies concerned are expected to generate taxable income in the future.

Regarding the recognition of tax expenses, deferred tax assets, and deferred tax liabilities, RHI Magnesita has evaluated the economic scenario's impacts arising, mainly, out of COVID-19's implications to a global downturn. In this context, the relevant uncertainties and potential negative effects of the downturn for the Group's financial results were considered when evaluating the recoverability of the tax assets. Particular focus was given to working with the most reliable forecasts and assumptions to minimize the effects of economic uncertainty to reach an assessment that reflects the best analysis possible, considering the circumstances and information available. Based on this analysis we concluded that there is no material need for an impairment of deferred tax assets.

Tax loss carryforwards totalled €413.8 million in the RHI Magnesita Group as of 31 December 2020 (31.12.2019: €494.5 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 to 30% in Brazil's respective taxable profits. Deferred taxes were not recognised on tax losses of €115.3 million (31.12.2019: €212.7 million). Of these losses, €0.4 million will expire in 2022, €5.2 million in 2023, €6.9 million in 2024, €1.2 million in 2023, €7.8 million in 2024, €1.0 million in 2027 and €1.8 million in 2028), while the remainder will be carried forward indefinitely.

Besides, no deferred tax assets were recognised for temporary differences totalling \notin 89.7 million (31.12.2019: \notin 1.4 million) as it is not sufficiently probable that they can be used. \notin 82.5 million of those temporary differences relate to plant sales in Norway and Ireland and \notin 6.5 million are in connection with plant closures in Germany. The temporary deductible differences can be carried forward indefinitely.

Taxable temporary differences of €721.0 million (31.12.2019: €965.0 million) and temporary deductible differences of €456.0 million (31.12.2019: €545.0 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:

_			31.12.2020			31.12.2019
in € million	Current	Non-current	Total	Current	Non-current	Total
Deferred tax assets	69.1	130.1	199.2	140.6	41.3	181.9
Deferred tax liabilities	(3.1)	(41.9)	(45.0)	(9.0)	(45.0)	(54.0)

17. Inventories

Inventories as presented in the Consolidated Statement of Financial Position consist of the following items:

in € million	31.12.2020	31.12.2019
Raw materials and supplies	92.7	134.5
Work in progress	102.5	123.9
Finished products and goods	272.2	334.0
Prepayments made	10.0	10.3
Inventories	477.4	602.7

Inventories include €1.4 million (31.12.2019: €2.8 million) carried at net realisable value. Net impairment losses amount to €1.4 million (2019: € 8.0 million).

There are no restrictions on the disposal of inventories.

18. Trade and other current receivables

Trade and other current receivables as presented in the Statement of Financial Position are classified as follows:

in € million	31.12.2020	31.12.2019
Trade receivables	254.3	320.71)
Contract assets	1.8	1.9
Other taxes receivable	58.4	84.9
Receivables from joint ventures and associates	1.1	2.1
Prepaid expenses	4.2	2.3
Receivables from property transactions	1.6	2.7
Emission rights	2.0	1.7
Receivables from employees	8.9	3.4
Prepaid transaction costs related to financial liabilities	2.3	0.0
Receivables from non-consolidated subsidiaries	0.2	0.2
Other current receivables	17.0	12.8
Trade and other current receivables	351.8	432.7
thereof financial assets	255.6	324.2
thereof non-financial assets	96.2	108.5

1) Adjusted to reflect the changes in presentation.

RHI Magnesita entered into factoring agreements and sold trade receivables to financial institutions. The balance sold totalled \leq 177.6 million as of 31 December 2020 (31.12.2019: \leq 223.0 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.

19. Income tax receivables

Income tax receivables amounting to €27.7 million (31.12.2019: €17.3 million) are mainly related to tax prepayments and deductible withholding taxes.

20. Other current financial assets

This item of the Consolidated Statement of Financial Position consists of the following components:

in € million	31.12.2020	31.12.2019
Derivatives in open orders	0.0	O.1
Forward exchange contracts	0.3	0.0
Other current financial assets	0.3	0.1

Accumulated impairments on other current financial receivables amounted to €0.6 million (31.12.2019: €0.6 million).

21. Cash and cash equivalents

This item of the Consolidated Statement of Financial Position consists of the following components:

Cash and cash equivalents	587.2	467.2
Cash on hand	0.2	O.1
Cheques	1.0	1.2
Money market funds	14.8	74.7
Cash at banks	571.2	391.2
in € million	31.12.2020	31.12.2019

Cash and cash equivalents include restricted cash totalling ≤ 21.6 million at 31 December 2020 (31.12.2019: ≤ 23.3 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. ≤ 12.2 million (31.12.2019: ≤ 13.0 million) are accounted for by subsidiaries with non-controlling interests.

22. Share capital

As at 31 December 2020 the authorised share capital of RHI Magnesita N.V. amounts to €100,000,000 divided into 100,000,000 ordinary shares, of which 49,008,955 (31.12.2019: 49,077,705) fully paid-in ordinary shares are issued and outstanding, taking into consideration the treasury shares amounting to 468,750 (31.12.2019: 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.

23. 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.

On 16 December 2020 RHI Magnesita initiated a share buyback programme to repurchase up to 4.947.770 ordinary shares of one Euro nominal value each, up to the value of €50 million in total. The programme will end no later than 16 December 2021. Until 31 December 2020 the company acquired additional 68.750 shares in treasury equalling €2.7 million.

Additional paid-in capital

At 31 December 2020 as well as at 31 December 2019, 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.

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.

24. Non-controlling interests

Non-controlling interests in Orient Refractories Ltd.

Non-controlling interests hold a share of 33.5% (31.12.2019: 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	31.12.2020	31.12.2019
Non-current assets	29.1	30.4
Current assets	56.1	52.1
Non-current liabilities	(3.5)	(3.7)
Current liabilities	(23.0)	(17.8)
Net assets before intragroup eliminations	58.7	61.0
Intragroup eliminations	(O.1)	(0.2)
Net assets	58.6	60.8
Percentage of non-controlling interests	33.5%	33.5%
Carrying amount of non-controlling interests	19.6	20.4

The aggregate Statement of Profit or Loss and Statement of Comprehensive Income are shown below:

in € million	2020	2019
Revenue	77.0	90.8
Operating expenses, net finance costs and income tax	(68.6)	(79.1)
Profit after income tax before intragroup eliminations	8.4	11.7
Intragroup eliminations	O.1	0.2
Profit after income tax	8.5	11.9
thereof attributable to non-controlling interests of ORL	2.8	4.0

in € million	2020	2019
Profit after income tax	8.5	11.9
Other comprehensive income/(loss)	(7.5)	0.0
Total comprehensive income	1.0	11.9
thereof attributable to non-controlling interests of ORL	0.3	4.0

The following table shows the summarised Statement of Cash Flows of ORL:

in € million	2020	2019
Net cash flow from operating activities	8.1	11.9
Net cash flow from investing activities	(3.5)	(9.1)
Net cash flow from financing activities	(3.2)	(3.9)
Total cash flow	1.4	(1.1)

Net cash flow from financing activities includes dividend payments to non-controlling interests amounting to €1.1 million (2019: €1.3 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 2020 (31.12.2019: €0.4 million).

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	Currency translation
Accumulated other comprehensive income 31.12.2019	(1.8)
Unrealised results from currency translation	(2.5)
Accumulated other comprehensive income 31.12.2020	(4.3)

25. Borrowings

Borrowings include all interest-bearing liabilities due to financial institutions and other lenders.

Borrowings have the following contractual remaining terms:

	Total		Remaining term	
in € million	31.12.2020	up to 1 year	2 to 5 years	over 5 years
Syndicated & Term Loan	613.0	40.6	572.4	0.0
Bonded loans ("Schuldscheindarlehen")	400.0	0.0	100.0	300.0
Other credit lines and other loans	88.2	83.4	4.8	0.0
Accrued interest	4.4	4.4	0.0	0.0
Total liabilities to financial institutions	1,105.6	128.4	677.2	300.0
Other financial liabilities	11.9	4.3	7.6	0.0
Capitalised transaction costs	(3.0)	(1.2)	(1.7)	(O.1)
Borrowings	1,114.5	131.5	683.1	299.9

	Total			
in € million	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.O	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 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 fully unutilised credit facility has been converted to EUR and increased to €600.0 million. Additionally, in December the final maturity has been further extended to 2026. As of 31 December 2018, USD 210.0m of the RCF was utilised, which was fully repaid during 2019 and was unutilised on 31 December 2019 (USD 400m fully unutilised).

RHI Magnesita strengthened its financial liquidity by signing a new \leq 60.0 million 2-year revolving credit facility guaranteed by the Austrian export credit agency (OeKB) in April 2020, which was part of the Austrian government's COVID-19 support program. The interest rate is the OeKB refinancing rate plus a margin between 0.5% and 0.7%, according to Group Leverage. RHI Magnesita borrows currently at the lowest margin of 0.5%. The final maturity of the loan is March 2022. Cash inflows from the new term loan in the amount of \leq 60.0 million are shown in the Consolidated Statement of Cash Flows in proceeds from borrowings and loans.

In 2019 RHI Magnesita signed a €100.0 million 5-year term loan guaranteed by the Austrian export credit agency (OeKB). The interest rate is floating and is based on EURIBOR plus a margin between 0.4% and 1.3%, according to Group Leverage. The final maturity of the loan is February 2024.

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. 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.

Net debt excluding lease liabilities/adjusted EBITDA is the main financial covenant of the loan agreements and is shown under Note (56). 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. In order to provide additional flexibility during the COVID-19 pandemic, the covenant ratio was renegotiated in the course of the second quarter 2020 and was extended to 5.0x for the testing period of 31 December 2020 and 30 June 2021. During 2020 and 2019, the Group met all covenant requirements.

For liabilities of $\leq 1.032.8$ million (31.12.2019: $\leq 1.008.1$ 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, 53% (31.12.2019: 59%) of the liabilities to financial institutions carry fixed interest and 47% (31.12.2019: 41%) carry variable interest.

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

Interest terms fixed until	Effective annual interest rate	Cur- rency	31.12.2020 Carrying amount in € million	Interest terms fixed until	Effective annual interest rate	Cur- rency	31.12.2019 Carrying amount in € million
2021	EURIBOR + margin	EUR	380.7	2020	EURIBOR + margin	EUR	389.9
	LIBOR + margin	USD	15.3		LIBOR + margin	USD	15.9
	Interbank Deposit Certificate (CDI) + Margin	CNY	19.9		Interbank Deposit Certificate (CDI) + margin	CNY	14.0
	Various – Variable rate	Var.	3.3		Various – variable rate	Var.	0.2
	Variable rate + margin	EUR	94.0				
2022	1.74% 4.60%	EUR EUR	62.0 3.0	2022	1.74% 4.60%	EUR EUR	62.0 3.0
2023	0.28%	EUR	290.3	2023	0.28%	EUR	305.5
	3.09%	USD	162.6		3.09%	USD	178.5
2024	3.10%	EUR	35.0	2024	3.10%	EUR	35.0
2026	1.10%	EUR	27.0	2026	1.10%	EUR	27.0
2029	1.52%	EUR	8.0	2029	1.52%	EUR	8.0
			1,101.1				1,039.0

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

26. Other financial liabilities

Other financial liabilities include the negative fair value of derivative financial instruments as well as lease liabilities, fixed-term and puttable non-controlling interests in Group companies and a liability due to the settlement of a power supply contract in Norway. This item of the Consolidated Statement of Financial Position consists of the following items:

			31.12.2020			31.12.2019
in € million	Current	Non-current	Total	Current	Non-current	Total
Derivatives from supply contracts	1.6	0.0	1.6	5.9	18.0	23.9
Interest rate swaps	0.0	18.3	18.3	0.0	14.8	14.8
Derivatives in open orders	1.8	0.0	1.8	0.6	0.0	0.6
Derivative financial liabilities	3.4	18.3	21.7	6.5	32.8	39.3
Lease liabilities	12.2	44.6	56.8	13.8	48.1	61.9
Power supply contract Norway	15.5	0.0	15.5	0.0	0.0	0.0
Fixed-term or puttable non- controlling interests	12.9	25.9	38.8	11.6	24.2	35.8
Other financial liabilities	44.0	88.8	132.8	31.9	105.1	137.0

Additional explanation on derivative financial instruments is provided under Note (54).

27. Provisions for pensions

The net liability from pension obligations in the Consolidated Statement of Financial Position is as follows:

in € million	31.12.2020	31.12.2019
Present value of pension obligations	523.3	557.9
Fair value of plan assets	(240.2)	(248.0)
Deficit of funded plans	283.1	309.9
Asset ceiling	20.5	18.0
Net liability from pension obligations	303.6	327.9
thereof assets from overfunded pension plans	0.0	0.2
thereof pensions	303.6	328.1

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

in € million	31.12.2020	31.12.2019
Active beneficiaries	101.0	115.3
Vested terminated beneficiaries	72.9	74.6
Retirees	349.4	368.0
Present value of pension obligations	523.3	557.9

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

in %	31.12.2020	31.12.2019
Interest rate	1.7%	2.3%
Future salary increase	2.4%	2.6%
Future pension increase	1.7%	2.1%

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 \leq 111.8 million (31.12.2019: \leq 122.0 million) of the present value of pension obligations and for \leq 23.0 million (31.12.2019: \leq 23.2 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.

The pension plans of the German group companies account for ≤ 155.2 million (31.12.2019: ≤ 160.4 million) of the present value of pension obligations and for ≤ 0.7 million (31.12.2019: ≤ 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 ≤ 86.0 million (31.12.2019: ≤ 87.5 million) of the present value of pension obligations and for ≤ 70.2 million (31.12.2019: ≤ 67.8 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 made 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 2020 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 €63.7 million (31.12.2019: €63.5 million) of the present value of pension obligations and holds €84.2 million (31.12.2019: €81.5 million) of assets, although only €63.7 million (31.12.2019: €63.5 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.

The pension liabilities of the Brazilian group company Magnesita Refratários S.A. account for \leq 52.3 million (31.12.2019: \leq 72.5 million) of the present value of pension obligations and for \leq 26.9 million (31.12.2019: \leq 39.9 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	2020	2019
Net liability from pension obligations at beginning of year	328.1	302.2
Currency translation	(13.2)	0.3
Pension cost	10.3	12.2
Remeasurement losses	O.6	36.9
Benefits paid	(18.6)	(18.2)
Employers' contributions to external funds	(3.6)	(4.9)
Reclassifications	0.0	(0.4)
Net liability from pension obligations at year-end	303.6	328.1

The present value of pension obligations developed as follows:

in € million	2020	2019
Present value of pension obligations at beginning of year	557.9	506.6
Currency translation	(34.7)	5.2
Current service cost	4.6	3.7
Interest cost	10.9	16.5
Remeasurement (gains)/losses		
from changes in demographic assumptions	(1.O)	(1.4)
from changes in financial assumptions	24.3	60.1
due to experience adjustments	(8.6)	0.4
Benefits paid	(30.6)	(33.1)
Employee contributions to external funds	O.5	O.5
Reclassifications	0.0	(O.6)
Present value of pension obligations at year-end	523.3	557.9

The movement in plan assets is shown in the table below:

in € million	2020	2019
Fair value of plan assets at beginning of year	248.0	223.9
Currency translation	(22.9)	5.8
Interest income	6.0	9.1
Administrative costs (paid from plan assets)	(O.4)	(O.5)
Income/(expense) on plan assets less interest income	17.4	19.5
Benefits paid	(12.0)	(14.9)
Employers' contributions to external funds	3.6	4.9
Employee contributions to external funds	O.5	0.5
Transfer	0.0	(O.3)
Fair value of plan assets at year-end	240.2	248.0

The changes in the asset ceiling are shown below:

in € million	2020	2019
Asset ceiling at beginning of year	18.0	19.5
Currency translation	(1.0)	1.0
Interest expense	O.4	0.6
Losses/(gains) from changes in asset ceiling less interest expense	3.0	(3.1)
Asset ceiling at year-end	20.4	18.0

At 31 December 2020 the weighted average duration of pension obligations amounts to 13 years (31.12.2019: 12 years).

The following amounts were recorded in the Consolidated Statement of Profit or Loss:

in € million	2020	2019
Current service cost	4.6	3.7
Gains on settlement	0.0	(O.1)
Interest cost	10.9	16.7
Interest income	(6.0)	(9.2)
Interest expense from asset ceiling	O.4	0.6
Administrative costs (paid from plan assets)	O.4	0.5
Pension expense recognised in profit or loss	10.3	12.2

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

in € million	2020	2019
Accumulated remeasurement losses at beginning of year	168.0	131.4
Remeasurement losses on present value of pension obligations	14.7	59.2
Income on plan assets less interest income	(17.4)	(19.5)
Losses/(gains) from changes in asset ceiling less interest expense	3.0	(3.1)
Accumulated remeasurement losses at year-end	168.3	168.0

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

	31.12.2020				31.12.2019	
in € million	Active market	No active market	Total	Active market	No active market	Total
Insurances	0.0	41.0	41.0	0.0	40.2	40.2
Equity instruments	5.5	35.4	40.9	4.1	31.0	35.1
Debt instruments	60.5	38.0	98.5	17.7	44.2	61.9
Cash and cash equivalents	2.1	6.5	8.6	38.1	4.0	42.1
Other assets	48.7	2.5	51.2	65.8	2.9	68.7
Fair value of plan assets	116.8	123.4	240.2	125.7	122.3	248.0

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 2021, RHI Magnesita expects employer contributions to external plan assets to amount to ≤ 3.1 million and direct payments to entitled beneficiaries to ≤ 22.5 million. In the previous year, employer contributions of ≤ 3.7 million and direct pension payments of ≤ 21.1 million had been expected for the financial year 2020.

28. Other personnel provisions

Other personnel provisions consist of the following items:

in € million	31.12.2020	31.12.2019
Termination benefits	46.4	52.0
Service anniversary bonuses	19.4	21.0
Legacy share-based payment program	O.1	0.0
Semi-retirements	4.6	2.8
Other personnel provisions	70.5	75.8

Provisions for termination benefits

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

in %	31.12.2020	31.12.2019
Interest rate	0.9%	1.3%
Future salary increase	3.5%	3.4%

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	2020	2019
Provisions for termination benefits at beginning of year	52.0	55.5
Currency translation	(O.1)	0.1
Current service cost	1.3	1.5
Past service cost	0.0	(0.7)
Interest cost	0.6	1.1
Remeasurement losses/(gains)		
from changes in financial assumptions	2.1	2.1
due to experience adjustments	(1.9)	(1.8)
Benefits paid	(7.5)	(5.8)
Gain on settlement	(O.1)	0.0
Provisions for termination benefits at year-end	46.4	52.0

Payments for termination benefits are expected to amount to ≤ 2.9 million in the year 2021. In the previous year, the payments for termination benefits expected for the year 2020 amounted to ≤ 5.8 million.

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

2020	2019
27.5	27.2
O.1	0.3
27.6	27.5
	27.5 0.1

At 31 December 2020 the weighted average duration of termination benefit obligations amounts to 12 years (31.12.2019: 11 years).

Provisions for service anniversary bonuses

The measurement of provisions for service anniversary bonuses is based on an average weighted interest rate of 0.5% (31.12.2019: 0.8%) and considers salary increases of 3.5% (31.12.2019: 3.4%).

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	31.12.2020	31.12.2019
Present value of semi-retirement obligations	7.8	6.3
Fair value of plan assets	(3.2)	(3.5)
Provisions for semi-retirement obligations	4.6	2.8

External plan assets are ring-fenced from all creditors and exclusively serve to meet semi-retirement obligations.

29. Other non-current provisions

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

in € million	Onerous/unfavou rable contracts	[Labour and civil contingencies	Demolition/disposal costs, environmental damages	Other	Total
31.12.2019	77.5	10.2	10.7	0.1	98.5
Currency translation	(21.6)	(3.2)	(1.7)	0.0	(26.5)
Reversals	(7.4)	(1.O)	(1.4)	(O.1)	(9.9)
Additions	0.0	0.7	2.9	0.0	3.6
Additions interest	8.3	0.0	0.2	0.0	8.5
Reclassifications	(11.6)	0.0	0.0	0.0	(11.6)
31.12.2020	45.2	6.7	10.7	0.0	62.6

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 €45.2 million as of 31.12.2020 (31.12.2019: €71.2 million).

The provision for labour and civil contingencies primarily comprises labour litigation provisions against RHI Magnesita totalling 301 cases amounting to €5.2 million (31.12.2019: €8.0 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 ≤ 2.3 million (31.12.2019: ≤ 3.9 million) and various sites in the United States amounting to ≤ 5.3 million (31.12.2019: ≤ 6.3 million).

30. Other non-current liabilities

Other non-current liabilities consist of the following items:

in € million	31.12.2020	31.12.2019
Deferred income for subsidies received	3.1	5.8
Liabilities to employees	O.8	1.4
Miscellaneous non-current liabilities	0.9	O.1
Other non-current liabilities	4.8	7.3
thereof financial liabilities	0.0	0.0
thereof non-financial liabilities	4.8	7.3

31. 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	31.12.2020	31.12.2019
Trade payables	318.6	360.7 ¹⁾
Contract liabilities	46.2	45.5
Liabilities to employees	88.8	87.5
Taxes other than income tax	27.0	49.7
Dividend liabilities	0.4	25.0
Payables from property transactions	9.9	17.O
Payables from commissions	5.6	8.2
Liabilities to joint ventures and associates	0.7	0.7
Liabilities to non-consolidated subsidiaries	1.2	0.7
Other current liabilities	24.3	19.0
Trade payables and other current liabilities	522.7	614.0
thereof financial liabilities	337.6	412.3
thereof non-financial liabilities	185.1	201.7

1) Adjusted to reflect the changes in presentation.

Trade payables include an amount of €43.5 million (31.12.2019: €67.4 million) for raw material purchases subject to supply chain finance arrangements.

Contract liabilities mainly consist of prepayments received on orders. In 2020 €45.5 million revenue was recognised related to contract liabilities recognised as at 31 December 2019.

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

Other current liabilities include €0.6 million (31.12.2019: €1.3 million) investment reimbursement obligation to the former subsidiary Dolomite Franchi S.p.A., and other accrued expenses.

32. Income tax liabilities

Income tax liabilities amounting to ≤ 25.8 million (31.12.2019: ≤ 35.4 million) primarily include income taxes for the current year and previous years, which domestic and foreign tax authorities have not definitively assessed. Considering many factors, including the interpretation and jurisprudence on the respective tax laws and previous experiences, adequate liabilities were recognised.

33. Current provisions

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

		Demolition/ disposal costs,		nerous/unfavourab		
in € million	Restructuring costs	environmental damages	Warranties	le contracts	Other	Total
31.12.2019	31.8	5.4	9.3	17.8	5.5	69.8
Currency translation	(O.8)	0.0	(O.4)	(3.4)	(0.2)	(4.8)
Utilised	(23.8)	(0.2)	(3.4)	(10.2)	(1.5)	(39.1)
Reversals	(1.1)	(O.1)	(1.5)	(3.3)	(0.6)	(6.6)
Additions	47.4	1.4	5.9	2.0	0.5	57.2
Reclassifications	0.0	1.3	0.0	11.6	(1.3)	11.6
Disposal groups	(O.1)	0.0	0.0	(1.6)	0.0	(1.7)
31.12.2020	53.4	7.8	9.9	12.9	2.4	86.4

Provisions for restructuring costs amounting to \leq 53.4 million as of 31 December 2020 (31.12.2019: \leq 31.8 million) primarily consist of estimated benefit obligations to employees due to termination of employment and dismantling costs. Thereof, \leq 15.4 million relate to a project to review the Group's cost base on a long-term basis with the objective to streamline RHI Magnesita's organisation to preserve liquidity and restore profitability. Further \leq 22.5 million relate to the plant closure in Mainzlar, Germany, \leq 9.2 million to the plant closure in Kruft, Germany, \leq 2.6 million (31.12.2019: \leq 12.1 million) to the plant closure in Hagen, Germany, and \leq 1.2 million (31.12.2019: \leq 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 €2.5 million (31.12.2019: €2.5 million) which refers to the former site in Aachen, 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 supply contract obligation amounting to \notin 7.6 million (31.12.2019: \notin 10.4 million). The amortisation of this provision led to an income of \notin 13.1 million in 2020 (31.12.2019: \notin 15.5 million). Furthermore, provisions for other unfavourable contracts amount to \notin 2.0 million (31.12.2019: \notin 3.5 million). Provisions for unfavourable contracts are materials totalling \notin 4.9 million (31.12.2019: \notin 3.9 million) were reclassified to held for sale (IFRS 5) as of 31 December 2020.

The item other provisions includes a provision for the legacy share–based remuneration programme of the members of the former Management Board of RHI AG of €0.9 million (31.12.2019: €1.9 million).

In addition, provisions for legal proceedings amounting to €0.3 million (31.12.2019: €0.7 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

34. 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 (50).

35. 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.

36. 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.

37. 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 \leq 37.8 million (2019: \leq 35.0 million), of which development costs amounting to \leq 7.2 million (2019: \leq 9.0 million) were capitalised. Income from research grants amounted to \leq 3.9 million (2019: \leq 4.4 million) in 2020. Amortisation and impairment of development costs amounting to \leq 3.6 million (2019: \leq 4.4 million) are recognised under cost of sales.

38. Restructuring and write-down expenses

Production Optimisation Plan

The Group continued the Production Optimisation Plan initiated in 2019 throughout 2020, which led to €46.5 million (2019: €46.7 million) of restructuring expenses and €28.1 million (2019: €51.5 million) of non-current asset write-downs. Thereof €19.1 million (2019: €45.3 million) are allocated to Segment Steel and €9.0 million (2019: €6.2 million) are allocated to Segment Industrial. They are outlined below:

Restructuring expenses related to the plant closure in Mainzlar, Germany, amounting to \leq 30.8 million. Thereof, \leq 21.4 million relate to termination of employment costs and \leq 7.7 million refer to write-down expenses amounted on non-current assets, of which \leq 2.5 million are attributable to Segment Steel and \leq 5.2 million are attributable to Segment Industrial.

Further, restructuring expenses for the plant closure in Kruft, Germany, amounting to ≤ 17.7 million have been recognised. These expenses mainly relate to termination of employment costs amounting to ≤ 8.2 million and write-down expenses recognised on non-current assets amounting to ≤ 7.8 million, of which ≤ 6.8 million are attributable to Segment Steel and ≤ 1.0 million to Segment Industrial.

Write-down expenses recognised on non-current assets amounting to €15.6 million relate to the plant Refratec in Brazil, of which €12.3 million are attributable to Segment Steel and €3.3 million to Segment Industrial.

In the current reporting period additional restructuring expenses for the plant closure in Hagen, Germany, amounting to €11.2 million (2019: €55.3 million) have been recognised. These expenses mainly refer to termination of employment costs and other costs incurred in the course of the closure of the plant.

For the partial shut-down of the plant in Trieben, Austria, additional restructuring expenses amounting to ≤ 1.6 million (2019: ≤ 13.7 million) have been recognised in 2020, which mainly result from costs incurred in the course of the closure of the plant and the write-down of the remaining assets.

The sale of the plant in Burlington, Canada, resulted in a gain from disposal in the amount of ≤ 6.0 million and asset write-downs of ≤ 1.5 million. Further, termination of employment costs amount to ≤ 1.2 million.

The Production Optimisation Plan is expected to be completed in 2021.

The recoverable amounts of the assets written down due to restructurings were determined at their fair value less cost of disposal. Except for land that is available for resale, the fair value less cost of disposal is generally determined by reference to an asset's scrap value (Level 3 fair value). Scrap value is determined to be zero, unless otherwise stated. The FVLCOD is determined with reference to publicly available pricing information in Germany. The FVLCOD of the land exceeds their carrying amount.

Organisational restructuring

Management is conducting a detailed and far-reaching review of the Group's cost base on a long-term basis, to make sure the business is right-sized and prepared for the challenges and opportunities ahead. In 2020 these plans included reduction in the first three levels of management by 20% and the implementation of the new structure on 1 August 2020. As a result, restructuring expenses in the amount of €22.2 million have been recognised and are related to termination of employment costs. As this project is still ongoing, further restructuring expenses are to be expected in 2021.

Divestment Norway and Ireland

During the year the Group initiated a divestment process for the plants in Drogheda, Ireland, and Porsgrunn, Norway, which was completed in February 2021. As a result, write-down expenses on non-current assets amounting to ≤ 18.7 million were recognised. Thereof, ≤ 4.6 million are attributable to Segment Steel and ≤ 14.1 million are attributable to Segment Industrial. In 2019 write-down expenses amounting to ≤ 13.9 million resulted from the impairment testing Norway according to IAS 36, of which ≤ 9.3 million were allocated to Segment Steel and ≤ 4.6 million were allocated to Segment Industrial.

Other

Restructuring costs further include the settlement gain on a logistics services contract in the Porsgrunn plant. Norway, amounting to \in 3.3 million. The settlement of the contract was a pre-requisite for the divestment of the plant.

Summary of restructuring and write-down expenses recognised in the current reporting period:

in € million	2020
Plant closure Mainzlar	(30.8)
Plant closure Kruft	(17.7)
Plant closure Refratec	(15.6)
Plant closure Hagen	(11.2)
Plant closure Trieben	(1.6)
Plant closure Evergem	(1.0)
Plant closure Burlington	3.3
Production Optimisation Plan	(74.6)
Organisational restructuring	(22.2)
Divestment Norway and Ireland	(19.5)
Other	2.5
Restructuring and write-down expenses	(113.8)

39. Other income

The individual components of other income are:

in € million	2020	2019
Amortisation of Oberhausen provision	13.1	15.5
Income from the disposal of non-current assets	1.8	1.9
Income from the reversal of provisions	O.5	4.6
Miscellaneous income	4.3	12.9
Other income	19.7	34.9

40. Other expenses

Other expenses include:

Result from derivatives from supply contracts (9.6) Expenses for strategic projects (6.9) Losses from the disposal of non-current assets (6.4) Result from deconsolidation – recycling currency translation differences (0.3) Miscellaneous expenses (3.0)	(31.3)	(26.2)	ther expenses
Result from derivatives from supply contracts(9.6)Expenses for strategic projects(6.9)Losses from the disposal of non-current assets(6.4)	(11.3)	(3.0)	iscellaneous expenses
Result from derivatives from supply contracts(9.6)Expenses for strategic projects(6.9)	(3.7)	(O.3)	esult from deconsolidation – recycling currency translation differences
Result from derivatives from supply contracts (9.6)	(4.3)	(6.4)	isses from the disposal of non-current assets
	(9.0)	(6.9)	penses for strategic projects
	(3.0)	(9.6)	esult from derivatives from supply contracts
in€million 2020	2019	2020	€million

RHI Magnesita Group terminated its energy supply contract following the closure of the fused magnesia plant in Porsgrunn. Norway. The original contract term was December 2023 and the settlement payment amounts to \leq 24.0 million. The first payment installment was made in July 2020 (\leq 8.5 million), the second in January 2021 (\leq 15.5 million). Since 2015 this energy supply contract has been accounted for as a derivative financial instrument in accordance with IFRS 9, as the "own-use-exemption" was no longer applicable as the majority of the contracted electricity was sold on the market. Since 30 June 2020, measurement of this financial instrument is based on the settlement payment and recognised as other financial liability.

Expenses for strategic projects amounting to €6.9 million (2019: €9.0 million) mainly include legal and consulting fees related to organisational streamlining and M&A.

41. Interest income

This item includes interest on cash at banks and similar income amounting to €5.2 million (2019: €8.7 million), interest income on financial receivables amounting to €0.0 million (2019: €0.2 million) and interest income on securities and shares amounting to €0.7 million (2019: €0.2 million).

42. Foreign exchange effects and related derivatives

The net expense on foreign exchange effects and related derivatives consists of the following items:

in € million	2020	2019
Foreign exchange gains	147.1	83.3
Gains from related derivative financial instruments	1.9	14.6
Foreign exchange losses	(190.4)	(83.4)
Losses from related derivative financial instruments	(1.4)	(31.7)
Net expense on foreign exchange effects and related derivatives	(42.8)	(17.2)

The net expense on foreign exchange effects in the current reporting period resulted mainly from the devaluation of the US Dollar and the Brazilian Real.

43. Other net financial expenses

Other net financial expenses consist of the following items:

in € million	2020	2019
Interest income on plan assets	5.9	8.6
Interest expense on provisions for pensions	(11.2)	(16.7)
Interest expense on provisions for termination benefits	(O.6)	(1.2)
Interest expense on other personnel provisions	(O.2)	(O.3)
Net interest expense personnel provisions	(6.1)	(9.6)
Unwinding of discount of provisions and payables	(9.6)	(12.9)
Interest expense on non-controlling interests	(3.7)	(3.9)
Interest expense on lease liabilities	(1.3)	(1.2)
Gains from the disposal of securities and shares	0.0	0.9
Reversal of impairment losses on securities	0.0	0.8
Impairment losses on securities	(O.2)	0.0
Expenses from the valuation of put options	(1.6)	(O.5)
Other interest and similar expenses	(7.2)	(12.3)
Other net financial expenses	(29.7)	(38.7)

44. Income tax Income tax consists of the following items:

in € million	2020	2019
Current tax expense	(27.1)	(72.7)
Deferred tax (expense)/income relating to		
temporary differences	(3.7)	29.8
tax loss carryforwards	16.9	(7.9)
	13.2	21.9
Income tax	(13.9)	(50.8)

The current tax expense of the year 2020 includes tax expenses for previous periods of ≤ 2.5 million (2019: ≤ 8.4 million) and income from income tax relating to prior periods of ≤ 8.3 million (2019: ≤ 1.7 million).

In 2020 the income tax income for prior periods mainly includes income from revised tax returns in the Netherlands amounting to \leq 3.8 million and income from a change in estimate of prior-year tax provisions in Germany amounting to \leq 1.4 million. In 2019 income tax expenses for prior periods mainly include exit value expenses out of an ongoing transfer of functions between related parties amounting to \leq 1.8 million and tax audit expenses in APAC and Italy amounting to \leq 1.2 million.

In addition to the income taxes recognised in the Statement of Profit or Loss, tax income totalling \leq 41.1 million (2019: \leq 18.0 million), which is attributable to other comprehensive income, was also recognised in other comprehensive income.

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	2020	2019
Profit before income tax	41.5	199.6
Income tax expense calculated at 25% (2019: 25%)	10.4	49.9
Different foreign tax rates	O.3	(4.4)
Expenses not deductible for tax purposes, non-creditable taxes	14.6	17.2
Non-taxable income and tax benefits	(5.0)	(22.5)
Tax losses and temporary differences of the financial year not recognised	6.4	9.9
Utilisation of previously unrecognised loss carryforwards and temporary differences	(3.4)	(2.5)
Recognition of previously unrecognised loss carryforwards and temporary differences	(14.2)	(13.3)
Change in valuation allowance on deferred tax assets	O.3	0.6
Deferred taxes not usable due to plant sale	16.O	0.0
Deferred tax expense due to tax rate changes	(6.6)	(0.6)
Deferred income tax relating to prior periods	O.4	8.5
Current income tax relating to prior periods	(5.9)	7.6
Other	0.6	0.5
Recognised tax expense	13.9	50.8
Effective tax rate (in %)	33.5%	25.5%

In 2020 expenses not deductible for tax purposes included non-deductible voluntary leave payments in Austria of \leq 1.7 million. non-deductible expenses for a share sale of \leq 0.2 million, \leq 4.9 million in Brazil, mainly due to taxation on foreign income of Brazilian controlled subsidiaries and non-deductible expenses due to thin capitalisation of \leq 1.1 million in Argentina.

Non-taxable income and tax benefits include non-taxable portions of a capital gain of ≤ 0.8 million or statutory adjustments of ≤ 0.7 million. On tax losses and temporary differences ≤ 3.1 million of potential deferred tax assets have not been recognised in Luxembourg and in Brazil and ≤ 2.9 of tax losses and temporary differences resulted from plant closures and could not be recognised due to limited planned taxable income in future years. Previously unrecognised tax loss carryforwards of ≤ 2.6 million could be utilised in China. Because of an increase in the planned future taxable income previously unrecognised deferred tax assets could now be recognised leading to an additional tax income of ≤ 2.3 million in the Netherlands and ≤ 2.4 million in China. Furthermore, a restructuring in Austria led to ≤ 9.4 million of deferred

tax assets being recognised due to increased planned taxable income. Deferred tax assets had to be impaired for €16.0 million in Norway due to the sale of the company holding those tax assets.

Due to tax rate changes in Brazil from 15.25% to 34% in relation to the SUDENE tax regime an amount of \pounds 6.5 million increased the income from deferred income taxes. In 2019 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 \pounds 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 \pounds 0.7 million.

45. 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 2020 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 2020
Changes in inventories, own work capitalised	21.7	0.0	(2.4)	0.0	0.0	19.3
Cost of materials	1,004.4	0.9	7.8	0.0	0.0	1,013.1
Personnel costs	313.6	76.1	126.5	0.0	59.3	575.5
Depreciation and amortisation charges	115.7	3.6	20.3	0.0	0.0	139.6
Write-down expenses	0.0	0.0	0.0	0.0	52.1	52.1
Other income	(1.7)	0.0	(3.8)	(19.7)	(7.2)	(32.4)
Other expenses	255.2	30.3	49.9	26.2	9.6	371.2
Total	1,708.9	110.9	198.3	6.5	113.8	2,138.4

Cost of materials includes expenses for raw materials and supplies and purchased goods of €827.9 million (2019: €1,049.6 million) as well as expenses for services received, especially energy, amounting to €185.2 million (2019: €223.5 million).

in € million	Cost of sales	Selling and marketing expenses	General and administrative expenses	Other income/ expenses	Restructuring and write-down income/expenses	Total 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

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.

46. Personnel costs

Personnel costs consist of the following components:

in € million	2020	2019
Wages and salaries	443.3	489.6
Pensions		
Defined benefit plans	5.1	4.1
Defined contribution plans	6.2	5.9
Termination benefits		
Defined benefit plans	1.7	0.8
Defined contribution plans	1.4	1.4
Other expenses	19.1	15.9
Social security costs	73.7	79.3
Fringe benefits	25.1	32.7
Personnel expenses (without interest expenses)	575.6	629.7

Personnel costs do not include amounts resulting from the interest accrued on personnel provisions. They amount to \leq 6.0 million (2019: \leq 9.6 million) and are recorded in other net financial expenses.

The expenses for wages and salaries include €3.0 million (2019: €4.1 million) for share based payments.

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.

47. Cash generated from operations

in € million	2020	2019
Profit after income tax	27.6	148.8
Adjustments for		
income tax	14.O	50.8
depreciation	120.3	146.2
amortisation	19.4	26.4
write-down of property, plant and equipment and intangible assets	46.8	65.5
income from the reversal of investment subsidies	(O.6)	(O.6)
write-ups/ impairment losses on securities	0.2	8.7
losses from the disposal of property, plant and equipment	O.1	2.8
gains from the disposal of securities and shares	0.0	(O.9)
losses from the disposal of subsidiaries	O.3	3.7
net interest expense and derivatives	36.0	49.6
share of profit of joint ventures and associates	(7.6)	(11.1)
other non-cash changes	23.2	26.0
Changes in working capital		
inventories	64.2	110.9
trade receivables	35.9	30.3
contract assets	(O.1)	0.0
trade payables	(5.8)	(145.0)
contract liabilities	3.1	(19.0)
Changes in other assets and liabilities		
other receivables and assets	13.1	(4.9)
provisions	(4.1)	(8.0)
other liabilities	(19.4)	(9.8)
Cash generated from operations	366.6	470.4

Other non-cash expenses and income include mainly the net interest expenses for defined benefit pension plans amounting to €6.1 million (2019: €9.6 million), net remeasurement losses of monetary foreign currency positions and derivative financial instruments of €4.3 million (2019: €19.8 million), foreign exchange effects and the amortisation of Oberhausen provision (see Note 39).

48. 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:

	Cash changes	Cash changes			Non-cash changes		
in € million	31.12.2019		Changes in foreign exchange rates	Disposal group IFRS 5	Interest expense and other changes	Additions and modifications of leases (IFRS 16)	31.12.2020
Liabilities to financial institutions	1,043.1	51.1	(15.1)	0.0	26.5	0.0	1,105.6
Lease liabilities	61.9	(17.1)	(6.7)	(9.6)	1.3	27.0	56.8
Liabilities to fixed-term or puttable non-controlling interests	35.8	(1.6)	(O.8)	0.0	5.4	0.0	38.8
Other financial liabilities and capitalised transaction costs	11.9	(2.6)	(1.7)	0.0	1.3	0.0	8.9
Changes of financial liabilities and assets arising from financing activities	1,152.7	29.8	(24.3)	(9.6)	34.5	27.0	1,210.1

		Cash changes				Non-cash changes	
in € million	31.12.2018		Changes in foreign exchange rates	Initial recognition IFRS 16	Interest expense and other changes	Additions and modifications of leases (IFRS 16)	31.12.2019
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)	O.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

The reconciliation of the cash impact of net financing in 2020 and 2019 is shown in the tables below:

2020	Reconciliation to cash net finance cost					
in € million	Profit or loss	financing cash movements	other cash and non-cash movements	Cash impact of net financing costs		
Interest income	5.9	0.0	(O.1)	6.0		
Interest expenses on borrowings	(20.1)	(4.2)	(4.4)	(19.9)		
Net expense on foreign exchange effects and related derivatives	(42.8)	0.0	(44.3)	1.5		
Other net financial expenses	(29.7)	(3.1)	(22.2)	(10.6)		
Net finance costs	(86.7)			(23.0)		

2019	Reconciliation to cash net finance cost					
in € million	Profit or loss	financing cash movements	other cash and non-cash movements	Cash impact of net financing costs		
Interest income	9.1	0.0	O.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)		

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.

49. Total interest paid and interest received

Total interest paid amounts to \leq 31.7 million in the reporting period (2019: \leq 50.5 million), of which \leq 1.0 million (2019: \leq 0.4 million) is included in cash flow from operating activities, \leq 0.2 million (2019: \leq 0.3 million) in cash flow from investing activities and \leq 30.5 million (2019: \leq 49.8 million) in cash flow from financing activities.

Total interest received amounts to €6.1 million for the financial year 2020 (2019: €8.3 million), of which €0.2 million (2019: €0.0 million) are included in cash flow from operating activities and €5.9 million (2019: €8.3 million) in cash flow from investing activities.

OTHER DISCLOSURES

50. Segment reporting Segment reporting by operating company division

The following tables show the financial information for the operating segments for the year 2020 and the previous year:

2020 in € million

2020 In C million	Steel	Industrial	Group 2020
Revenue	1,582.8	676.2	2,259.0
Gross profit	371.4	178.7	550.1
EBIT			120.6
Net finance costs			(86.7)
Share of profit of joint ventures and associates			7.6
Profit before income tax			41.5
Depreciation and amortisation charges	(99.3)	(40.4)	(139.7)
Segment assets 31.12.2020	1,526.0	542.6	2,068.6
Investments in joint ventures and associates 31.12.2020			16.3
Reconciliation to total assets			967.8
			3,052.7
Investments in property, plant and equipment and intangible assets (according to non- current assets statement)	127.9	46.9	174.8
2019 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 ¹⁾	(125.7)	(46.9)	(172.6)
Segment assets 31.12.2019 ¹⁾	1,761.3	707.3	2,468.6
Investments in joint ventures and associates 31.12.2019			19.5
Reconciliation to total assets			831.5
		—	3,319.6
Investments in property, plant and equipment and intangible assets (according to non-current assets statement)^{\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!	129.8	51.2	181.0

Group 2020

Steel

Industrial

1) Adjusted to reflect the changes in presentation.

No single customer contributed 10% or more to consolidated revenue in 2020 and in 2019. Companies which are known to be part of a group are treated as one customer.

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 (e.g. full line service, contract business, cost per performance) 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 2020
Shaped products	745.8	477.0	1,222.8
Unshaped products	283.6	139.4	423.0
Management refractory services	481.2	0.0	481.2
Other	72.2	59.8	132.0
Revenue	1,582.8	676.2	2,259.0

In 2019, revenue was 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.O
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

Total revenue includes revenue from Solution Business amounting to \leq 618.3 million (2019: \leq 770.3 million). Thereof, \leq 537.5 million (2019: \leq 648.5 million) are attributable to Segment Steel and \leq 80.8 million (2019: \leq 121.8 million) are attributable to Segment Industrial. Solution Business is a customer classification, where RHI Magnesita sums up all customer relations in which we enable our customers to focus on their core competences. It's typically characterised by sales of end-to-end solutions covering large parts of the customer process chain. Examples of this would be CPP/FLS, but also customers where we focus on technological development of bespoke products or where we are a strategic partner.

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 \leq 55.2 million (2019: \leq 96.9 million) is transferred over time and an amount of \leq 76.8 million (2019: \leq 108.9 million) is transferred at a point of time.

Segment reporting by country

Revenue in 2020 is classified by customer sites as follows:

in € million	Steel	Industrial	Group
Netherlands	6.3	6.0	12.3
All other countries			
USA	326.8	57.5	384.3
Brazil	176.3	53.8	230.1
India	161.7	25.9	187.6
PR China	67.2	99.9	167.1
Mexico	82.9	31.1	114.O
Germany	69.8	43.8	113.6
Italy	62.7	23.3	86.0
Russia	59.5	17.9	77.4
Canada	40.0	35.0	75.0
Other countries, each below €55.6 million	529.6	282.0	811.6
Revenue	1,582.8	676.2	2,259.0

Revenue in 2019 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

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	31.12.2020	31.12.2019
Brazil	338.2	514.0
Austria	259.4	228.8
USA	220.5	233.2
PR China	177.4	181.9
Germany	139.6	154.0
India	61.6	64.7
Mexico	34.9	38.9
Turkey	28.5	29.4
France	27.5	27.9
Other countries, each below €15.9 million (31.12.2019: €22.1 million)	47.5	70.5
Goodwill, intangible assets and property, plant and equipment	1,335.1	1,543.3

51. 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.

2020	2019
25	139.0
49,075,426	49,220,010
363,519	273,969
49,438,945	49,493,979
0.51	2.82
0.50	2.81
	25 49,075,426 363,519 49,438,945 0.51

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 2020, there are 363,519 diluting options (31,12,2019; 273,969).

52. Dividend payments and proposed dividend

Given the resilient performance of the business and its strong annual cash generation, the Board will recommend a dividend of €1.00 per share for the shareholders of RHI Magnesita N.V for 2020. The proposed dividend is subject to the approval of the Annual General Meeting on 10 June 2021 and was not recognised as a liability in the Consolidated Financial Statements 2020. Together with the already paid interim dividend of €0.50 per share in December, the final proposed dividend for 2020 will amount to €1.50 per share.

On 22 October 2020 the Board declared an interim dividend of €0.50 per share amounting to €24.5m, which is in line with the 2019 interim dividend. The dividend was paid to shareholders on 21 December 2020.

In April 2020 the Board decided not to recommend the payment of a final dividend for 2019 because of the uncertainty relating to COVID-19 and to prudently preserve cash.

On 23 July 2019 the Board of Directors of RHI Magnesita N.V. approved the 2019 interim dividend of \leq 0.50 per share amounting to \leq 24.5 million. The 2019 interim dividend was paid on 9 January 2020.

Dividend payments to the shareholders of RHI Magnesita N.V. have no income tax consequences for RHI Magnesita N.V.

53. Additional disclosures on financial instruments

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

in€ million	Measurement category IFRS 9 ¹⁰	Level	Carrying amount	Fair value	Carrying amount	Fair value
Other non-current financial assets						
Interests in subsidiaries not consolidated	FVPL	3	0.6	0.6	0.7	0.7
Marketable securities	FVPL	1	13.0	13.0	13.3	13.3
Shares	FVPL	3	0.5	0.5	0.5	0.5
Other non-current financial receivables	AC	-	0.4	_	0.9	-
Trade and other current receivables	AC	-	255.6	-	324.2	-
Other current financial assets						
Derivatives	FVPL	2	0.3	0.3	O.1	O.1
Cash and cash equivalents	AC	-	587.2	_	467.2	-
Financial assets			857.6		806.9	
Non-current and current borrowings						
Liabilities to financial institutions	AC	2	1,105.6	1,118.3	1,043.1	1,056.6
Other financial liabilities and capitalised transaction costs	AC	2	8.9	_	11.9	-
Non-current and current other financial liabilities						
Lease liabilities	AC	2	56.8	_	61.9	-
Derivatives	FVPL	2	3.4	3.4	24.5	24.5
Interest derivatives designated as cash flow hedges	-	2	18.3	18.3	14.8	14.8
Liabilities to fixed-term or puttable non-controlling interests	AC	2	38.8	38.8	35.8	35.8
Power supply contract Norway	AC	2	15.5	15.5		
Trade payables and other current liabilities	AC	-	337.6	-	412.3	-
Financial liabilities			1,58 4 .9		1,604.3	
Aggregated according to measurement category						
Financial assets measured at FVPL			14.4		14.6	
Financial assets measured at amortised cost			843.2		792.3	
Financial liabilities measured at amortised cost			1,563.2		1,565.0	
Financial liabilities measured at FVPL			3.4		24.5	

31.12.2020

31.12.2019

 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 if 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 short-term power supply contract. These derivatives are measured using quoted forward rates that are currently observable (Level 2).

Regarding the long-term power supply contract that was classified as a derivative since 2015, measurement of this financial instrument is based on the settlement payment and now recognised as other financial liability, see Note (40) and (54).

A detailed analysis on COVID-19 and its impact on the Group is provided under Note (1). The effect on the fair value of financial assets and liabilities as at 31 December 2020 is considered to be immaterial to the Group.

RHI Magnesita takes into account reclassifications in the measurement hierarchy at the end of the reporting period in which the changes occur. Other than those 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 disclosed 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 carrying amount of other financial liabilities approximate their fair value at the reporting date.

The carrying amounts of financial receivables approximately correspond to their 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.

Trade and other current receivables and liabilities as well as cash and cash equivalents are predominantly short-term. Therefore, the carrying amounts of these items approximate fair value at the reporting date.

No contractual netting agreement of financial assets and liabilities were in place as at 31 December 2020 and 31 December 2019.

Net results by measurement category in accordance with IFRS 9

The effect of financial instruments on the income and expenses recognised in 2020 and 2019 is shown in the following table, classified according to the measurement categories defined in IFRS 9:

in € million	2020	2019
Net loss from financial assets and liabilities measured at fair value through profit or loss	(4.9)	(17.7)
Net gain from financial assets and liabilities measured at fair value through profit or loss designated on initial recognition	0.0	O.5
Net loss from financial assets and liabilities measured at amortised cost	(73.9)	(39.7)

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 designated at fair value through profit or loss at 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 \leq 5.9 million (2019: \leq 9.1 million) and interest expenses of \leq 32.6 million (2019: \leq 49.9 million), which result from financial assets and liabilities which are not carried at fair value through profit or loss.

54. 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 applied). Since 30 June 2020, measurement of this financial instrument is based on the settlement payment and recognised as other financial liability, as RHI Magnesita Group terminated its energy supply contract following the closure of the fused magnesia plant in Porsgrunn. Norway. The original contract term was December 2023 and the settlement payment amounts to \leq 24.0 million. The first payment installment was made in July 2020 (\leq 8.5 million), the second in January 2021 (\leq 15.5 million).

The measurement of the entire term of the contract until the end of the year 2023 at market price level lead to a financial liability of ≤ 23.9 million at 31 December 2019. The corresponding present value of the cash flows for the agreed electricity supply totalled ≤ 59.5 million at 31 December 2019; the present value of the cash flow at market price amounted to ≤ 35.6 million.

In addition, Magnesita Refratários S.A., Contagem, Brazil signed a commodity forward contract for electricity in January 2012 which is accounted for as a financial instrument in accordance with IFRS 9 since 1 January 2020 as the "own-use exemption" no longer applies.

The measurement of the entire term of the contract until the end of the year 2021 at market price level leads to a financial liability of \pounds 1.6 million at 31 December 2020. The corresponding present value of the cash flows for the agreed electricity supply totals \pounds 4.2 million at 31 December 2020; the present value of the cash flow at market price amounts to \pounds 2.6 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 Group has established a hedge ratio of 1:1 and 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. Potential hedge ineffectiveness could arise out of the credit value/debit value adjustment on the interest rate swaps which is not matched by the loan or out of differences in critical terms between the interest rate swaps and the loans. Credit risk may affect hedge effectiveness, however this risk is assessed to be very low at RHI Magnesita as only first class international banks are involved.

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.

The fair values of the interest rate swaps totalled \notin -18.3 million at the reporting date (31.12.2019: \notin -14.8 million) and are shown in other non-current financial liabilities in the Consolidated Statement of Financial Position. For the reporting period 2020, \notin -3.6 million (2019: \notin -7.5 million) have been recognised in other comprehensive income and an income amounting to \notin 0.0 million (2019: \notin 0.7) 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.

The financial effect of the hedged item and the hedging instrument for the period 2020 and 2019 is shown as follows:

in € million	Carrying amount	Statement of Financial Position	Change in fair value used for measuring ineffectiveness	Nominal amount
2020	(18.3)	Other non-current financial liabilities	(3.6)	USD 200 million EUR 290.3 million
2019	(14.8)	Other non-current financial liabilities	(7.5)	USD 200 million EUR 305.6 million

in € million	Change in fair value used for measuring ineffectiveness	Nominal amount
2020	3.6	(2.7)
2019	7.5	(5.6)

A hedging relationship with a nominal volume of USD 50.0 million (31.12.2019: 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 2019.

Forward exchange contracts

A forward exchange contract was put into place as of 31 December 2020, selling USD 100 million and designed to be renewed on a monthly basis.

The nominal value and fair value of forward exchange contracts as of 31 December 2020 are shown in the table below:

				31.12.2020
Purchase	Sale		Nominal value in million	Fair value in € million
EUR	USD	USD	100.0	0.3
Forward exchange contracts				0.3

As of 31 December 2019 there were no open forward exchange contracts.

55. 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 €842.2 million (31.12.2019: €806.9 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:

Net credit exposure	171.1	179.9
Credit insurance and bank guarantees	(83.2)	(140.8)
Trade receivables	254.3	320.7
Segment Industrial	71.0	111.7
Segment Steel	183.3	209.0
in € million	31.12.2020	31.12.20191)

1) Adjusted to reflect the changes in presentation.

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:

Trade receivables	254.3	317.5
Other functional currencies	196.8	222.8
Other currencies	3.7	3.5
Pound Sterling	6.8	5.2
Euro	7.2	10.1
US Dollar	39.8	75.9
in € million	31.12.2020	31.12.2019

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		
	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				
	32.3	1.3	29.6	1.2
Currency translation	(1.6)	-	0.3	-
Addition	7.7	-	5.9	-
Use	(6.3)	-	(1.0)	-
Reversal	(2.1)	-	(2.5)	-
Net remeasurement of loss allowance	0.0	(0.7)	-	O.1
Accumulated valuation allowance at year-end	30.0	0.6	32.3	1.3

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

31.12.2020	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 %	0,02-0,53%	0,03–1,23%	0,08-9,46%	0,15–18,77%	0,26-26,25%	0,91-55,39%	
Gross carrying amount	222.8	13.3	2.80	1.30	2.00	0.2	242.4
Life time expected credit loss	0.30	0.04	0.02	0.03	0.05	0.20	0.6

in€million						Trade receivables – day	rs 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	O.1	O.1	O.1	O.1	O.5	1.3

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 2020, RHI Magnesita has a committed Revolving Credit Facility (RCF) of EUR 600.0 million, which was fully unutilised (31.12.2019: committed RCF was USD 400.0 million and was also unutilised). The EUR 600.0 million committed RCF is a syndicated facility with multiple international banks and matures in 2026. The subsidiaries 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:

				Remaining term	
in € million	Carrying amount 31.12.2020	Cash outflows	up to 1 year	2 to 5 years	over 5 years
Liabilities to financial institutions					
fixed interest	135.O	144.7	2.7	106.2	35.8
variable interest	970.6	994.2	131.2	594.3	268.7
Other financial liabilities and capitalised transaction costs	8.9	11.3	4.4	6.9	0.0
Lease liabilities	56.8	61.8	14.2	32.3	15.3
Liabilities to fixed-term or puttable non-controlling interests	38.8	170.2	12.9	11.9	145.4
Power supply contract Norway	15.5	15.5	15.5	0.0	0.0
Trade payables and other current liabilities	337.6	337.6	337.6	0.0	0.0
Non-derivative financial liabilities	1,563.2	1,735.3	518.5	751.6	465.2

			Remaining term			
in € million	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.O	772.3	496.7	

Derivative financial instruments

The remaining terms of derivative financial instruments based on expected undiscounted cash flow as of 31 December 2020 and 31 December 2019 are shown in the table below:

				Remaining term	
in€million	Carrying amount 31.12.2020	Cash flows	up to 1 year	2 to 5 years	over 5 years
Receivables from derivatives with net settlement					
Forward exchange contracts	0.3	O.3	O.3	0.0	0.0
Liabilities from derivatives with net settlement					
Derivatives from supply contracts	1.6	1.6	1.6	0.0	0.0
Interest rate swaps	18.3	9.6	4.7	4.9	0.0
Derivatives in open orders	1.8	1.8	1.8	0.0	0.0

					Remaining term
in€million	Carrying amount 31.12.2019	Cash flows	up to 1 year	2 to 5 years	over 5 years
Receivables from derivatives with net settlement					
Derivatives in open orders	O.1	0.1	O.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

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 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 2020:

in € million	USD	EUR	GBP	INR	Other	Total
Financial assets	663.6	72.6	21.8	9.4	40.6	808.0
Financial liabilities, provisions	(358.1)	(98.2)	3.5	0.0	(32.9)	(485.7)
Net foreign currency position	305.5	(25.6)	25.3	9.4	7.7	322.3

The foreign currency positions as of 31 December 2019 are structured as follows:

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 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 2020 would have had the following effect on profit or loss and equity (both excluding income tax):

	Appreciation of 10%			
in € million	Gain/(loss)	Equity	Gain/(loss)	Equity
US Dollar	(42.9)	(33.3)	52.4	40.7
Euro	2.0	12.0	(2.5)	(14.7)
British Pound Sterling	(2.0)	(2.0)	2.4	2.4
Indian Rupee	(O.9)	(0.9)	1.O	1.0
Other currencies	(0.7)	(0.7)	0.9	0.9

The hypothetical effect on profit or loss at 31 December 2019 can be summarised as follows:

in € million	Apr	Appreciation 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.O)	(3.0)	3.8	3.9	

Net investment hedge

Non-current borrowings as of 31 December 2020 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 2020 and 2019 is shown as follows:

in € million	Carrying amount	Statement of Financial Position	Change in fair value used for measuring ineffectiveness	Nominal amount
2020	162.6	Non-current borrowings	15.8	USD 200 million
2019	178.5	Non-current borrowings	(2.9)	USD 200 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 2020 and 2019 is shown as follows:

in€million	Change in fair value used for measuring ineffectiveness	Nominal amount
2020	(15.8)	(11.9)
2019	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 2020, interest rate hedges amounting to a nominal value of €290,3 million (31.12.2019: €305.6 million) and a nominal value of USD 200.0 million (31.12.2019: USD 200.0 million) existed; a variable interest rate was converted into a fixed interest rate through an interest rate swap. Further information is provided under Note (54). The reduction of interest expense on borrowings in 2020, is predominantly driven by the refinancing of high-interest-bearing debt in 2019.

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 cash flow hedges to protect against interest rate-related payment fluctuations are considered with hedge accounting have an effect on equity and are therefore included in the equity-related sensitivity analysis. If the market interest rate as of 31 December 2020 had been 25 basis points higher or lower, equity would have been €1.9 million (31.12.2019: €3.1 million) higher or lower considering 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 2020 had been 25 basis points higher or lower, the interest result would have been €0.1 million (31.12.2019: €0.1 million) lower or higher.

Other market price risk

RHI Magnesita holds certificates in an investment fund amounting to ≤ 13.0 million ($31.12.2019: \leq 13.3$ million) to provide the legally required coverage 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 2020, an energy supply contract with a term until 31 December 2021 was classified as a derivative financial instrument and the fair value of the financial liability amounts to ≤ 1.6 million as at 31 December 2020. If the forward prices at 31 December 2020 had been 20% higher or lower. EBIT would have been ≤ 0.5 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, the impact on EBIT would have been immaterial.

56. 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:

	31.12.2020	31.12.2019
Net debt (in € million)	582.1	649.7
Net gearing ratio (in %)	87.4%	76.9%
Net debt to adjusted EBITDA	1.53x	1.17×

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.

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	31.12.2020	31.12.2019
EBIT	120.6	273.3
Amortisation	19.4	26.4
Restructuring and write-down expenses	113.8	112.1
Other operating income and expenses	6.5	(3.6)
Adjusted EBITA	260.3	408.2
Depreciation	120.3	146.2
Adjusted EBITDA	380.6	554.4
Total debt	1,114.5	1,055.0
Lease liabilities	56.8	61.9
Cash and cash equivalents ¹⁾	589.2	467.2
Marketable securities	0.0	0.0
Net debt	582.1	649.7
Net debt excluding IFRS 16 lease liabilities	525.3	587.8
Net debt to adjusted EBITDA	1.53x	1.17x
Net debt to adjusted EBITDA excluding IFRS 16 lease liabilities	1.38x	1.06x

1) thereof shown under assets held for sale \leq 2.0 million

In both 2020 and 2019, 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 $\leq 288.699.230.59$ which was created in connection with the merger.

57. Contingent liabilities

At 31 December 2020, warranties, performance guarantees and other guarantees amount to €48.0 million (31.12.2019: €44.0 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 (31.12.2019: €0.3 million) were recorded, of which €0.3 million (31.12.2019: €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 2020 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 to several tax proceedings in Brazil which involve an estimated amount of €169.1 million (31.12.2019: €233.5 million). No provision was recorded 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. These tax proceedings are as follows:

In 2011, the Brazilian Tax Authorities issued an assessment regarding Corporate Income Taxes on the amortisation 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. 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 2020, the potential risk amounts to €59.3 million, including interest and penalties (31.12.2019: €81.7 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 defence 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 2020, the potential risk amounts to \leq 27.7 million, including interest and penalties (31.12.2019: \leq 38.1 million).

In 2019, the Brazilian Tax Authorities extended the goodwill challenge also for the years 2013 to 2018. The company will file a defence 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 2020, the potential risk amounts to €38.8 million (31.12.2019:€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 ≤ 3.1 million (including interest and penalties) as at 31 December 2020 (31.12.2019: ≤ 4.2 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 2020, the potential risk amounts to \leq 9.5 million, including interest and penalties (31.12.2019: \leq 12.8 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 2020, the potential risk amounts to ≤ 10.6 million, including interest and penalties (31.12.2019: ≤ 14.0 million).

In addition, the Brazilian Tax Authorities issued a tax assessment for an allegedly incurred use of Income Tax credits relating to the year 2015. Legal opinions obtained 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 2020, the potential risk amounts to ≤ 2.5 million (31.12.2019: ≤ 3.5 million), including interest and penalties.

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 \leq 17.6million (31.12.2019: \leq 25.9 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 allegedly 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 ≤ 10.6 million as at 31 December 2020 (31.12.2019: ≤ 13.3 million).

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.

58. Other financial commitments

Capital commitments amount to €49.5 million as at 31 December 2020 (31.12.2019: €5.0 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 €219.2 million at the reporting date (31.12.2019: €175.5 million). The increase in other financial commitments in 2020 compared to the previous year mainly results from raw material purchase contracts concluded in 2020. The remaining terms of the contracts amount to up to four 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.

59. Expenses for the Group independent auditor

The expensed fees for the activities of the Group independent auditor 'PricewaterhouseCoopers Accountants N.V.' that are included in the Consolidated Statement of Profit or Loss are shown in the following table:

in € million	2020	2019
Audit of the Financial Statements	2.6	3.3
thereof invoiced by PwC Accountants N.V.	1.2	1.1
thereof invoiced by PwC network firms	1.4	2.2
Tax compliance services	0.0	0.3
Other non-audit services	O.1	0.2
Total fees	2.7	3.8

In 2020, other audit related services, tax compliance services and other non-audit services amounting to €0.1 million (2019: €0.5 million) were performed and invoiced by PwC network firms outside of the Netherlands.

The expensed fees for the audited financial statements in 2020 and 2019 include the half year review procedures.

60. Annual average number of employees

The average number of employees of the RHI Magnesita Group based on full time equivalents amounts to:

	2020	2019
Salaried employees	4,733	4,860
Waged workers	7,831	9,515
Number of employees on annual average	12,564	14,375

98 full time equivalents of salaried employees work in the Netherlands. In 2019 84 full time equivalents of salaried employees worked in the Netherlands.

61. 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 2020 and 2019, the Group conducted the following transaction with its related companies:

	Joi	nt ventures		Associates		nsolidated ubsidiaries
in € million	2020	2019	2020	2019	2020	2019
Revenue from the sale of goods and services	2.7	3.3	0.0	0.0	0.0	0.0
Purchase of raw materials	2.7	1.6	14.6	15.7	O.1	O.1
Interest income	O.1	0.0	0.8	0.8	0.0	0.0
Asset purchase	0.0	0.0	0.0	0.0	0.0	0.0
Trade and other receivables	0.2	1.3	0.0	0.0	0.2	0.2
Loans granted	0.0	0.0	0.8	0.8	0.0	0.0
Trade liabilities	0.3	0.0	0.9	0.7	0.7	0.7
Dividends received	10.9	10.5	0.0	2.9	0.0	0.0

In 2020 and 2019, 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 2020 and 2019, 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 (31.12.2019: €0.8 million) from a loan agreement with Sinterco.

The balances at the end of 2020 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 (31.12.2019: €0.3 million). A resulting cash outflow is not expected. No guarantees were received.

In 2020 and 2019, 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 (27). At 31 December 2020, no current accounts receivable existed (31.12.2019: ≤ 0.0 million). In the past reporting period, employer contributions amounting to ≤ 0.6 million (2019: ≤ 0.6 million) were made to the personnel welfare foundation. At 31 December 2020 a net defined benefit liability of ≤ 0.9 million is recognised. At 31 December 2019 the overfunding of the pension plan was recognised as a non-current asset of ≤ 0.2 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 2020, in 2019 and in 2018 as well as the former Management Board and Supervisory Board of RHI AG until October 2017.

For the financial year 2020, expenses for the remuneration of the Executive Directors and EMT members, active in 2020, recognised in the Consolidated Statement of Profit or Loss total \leq 9.8 million (2019: \leq 9.8 million including also remuneration of the former Management Board). The expenses, not including non-wage labour costs, amount to \leq 9.1 million (2019: \leq 9.2 million), of which \leq 7.7 million (2019: \leq 6.7 million) were related to current benefits (fixed, variable and other earnings), \leq 0.0 million (2019: \leq 0.0 million) to benefits related to the termination of employment and \leq 1.4 million (2019: \leq 2.5 million) to share-based remuneration. At 31 December 2020, liabilities for performance-linked variable earnings and share-based payments for active members of the former Management Board of \leq 2.5 million (2019: \leq 2.6 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 2020, a payment of €1.0 million was made in this regard (2019: €1.0 million).

For Non-Executive Directors, remuneration totalling €1.1 million (2019: €1.2 million) was recognised through profit or loss in the year 2020. The compensation paid to the Non-Executive Directors 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 (2019: ≤ 0.2 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 102 to 126 of the Annual Report of the RHI Magnesita Group.

Earnings of former members of the former Management Board amounted to €0.7 million (2019: €2.7 million), of which €0.2 million (2019: €0.2 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 parties are conducted on an arm's-length basis and in accordance with normal business terms.

Until December 2020. Karl Sevelda held a 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 \notin 1.9 million in 2020 (2019: \notin 3.0 million). 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 three different share option plans, one applicable for the financial year 2020, 2019 and 2018 each.

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.

	2020	2019
LTIP 2020	Number of options	Number of options
As at 1 January	0	0
Granted during the year	370,014	0
Exercised during the year	0	0
Forfeited during the year	(6,495)	0
As at 31 December	363,519	0
Vested and exercisable at 31 December	0	0

	2020	2019
LTIP 2019	Number of options	Number of options
As at 1 January	179,775	0
Granted during the year	4,797	188,856
Exercised during the year	0	0
Forfeited during the year	(15,055)	(9,081)
As at 31 December	169,517	179,775
Vested and exercisable at 31 December	0	0

	2020	2019
LTIP 2018	Number of options	Number of options
As at 1 January	94,194	94,105
Granted during the year	4,256	89
Exercised during the year	0	0
Forfeited during the year	(768)	0
As at 31 December	97,682	94,194
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 2020 have a weighted-average contractual life of 2 years.

The outstanding share options for the LTIP 2018, which were granted on 6 June 2018, will expire on 7 June 2021. The share price at grant date for the 94,105 options was \leq 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 \leq 46.32. The outstanding share options for the LTIP 2020, which were granted on 8 April 2020, will expire on 9 April 2023. The share price at grant date for the 370,014 options was \leq 22.7.

The assessed fair value at grant date of options of the LTIP 2018 as 31 December 2020 was \leq 50.56 per option. The assessed fair value at grant date of options of the LTIP 2019 granted during the year ended 31 December 2020 was \leq 49.12 per option. The assessed fair value at grant date of options of the LTIP 2020 granted during the year ended 31 December 2020 was \leq 49.12 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 2020, for 2019 and 2018 were as follows:

2020
6.6
41.75%
36 Months
O.5
O.51%

LTIP 2019 in € million	2020	2019
Fair value at grant date	8.3	8.3
Expected volatility (weighted-average)	30.36%	30.36%
Expected life (weighted-average)	24 Months	36 Months
Expected dividends	O.5	0.5
Risk-free interest rate	0.47%	0.47%

LTIP 2018 in € million	2020	2019
Fair value at grant date	5.0	5.0
Expected volatility (weighted-average)	21.45%	21.45%
Expected life (weighted-average)	12 Months	24 Months
Expected dividends	O.5	0.5
Risk-free interest rate	0.89%	0.89%

For LTIP 2018 none of the performance targets have been met and the awards are therefore expected to lapse. Amounts recognised in equity relating to market-related performance condition will not be subsequently reversed.

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.

Expenses for share based payments are disclosed in Note (46).

62. Board of Directors of RHI Magnesita N.V.

The members of the Board of Directors are as follows:

Executive Directors

Stefan Borgas

lan Botha

Non-Executive Directors

Herbert Cordt	John Ramsay
Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg	David Schlaff
Celia Baxter	Wolfgang Ruttenstorfer
Janet Ashdown	Karl Sevelda
Andrew Hosty	Fiona Paulus

Employee Representative Directors

Franz Reiter

Michael Schwarz

63. Material events after the reporting date

On 1 February 2021, the Group completed the disposal of RHI Normag AS. Porsgrunn. Norway and Premier Periclase Limited. Drogheda. Ireland which were classified as held for sale as at the balance sheet date. The fair value less cost of disposal of the disposal group was determined with reference to the compensation payable to the purchaser. The total gain on loss of control of \pounds 6.2 recognised in the Consolidated Statement of Profit or Loss predominantly relates to the recycling of certain components of Other Comprehensive Income of the entities within the disposal group. As at the date of issue of the financial statements, this gain is expected to be partially set off by an expected loss on disposal of \pounds 5.5 million, arising from the disposal of certain assets in a related but separate transaction.

The Group continued its share buyback program and acquired from 1 January 2021 until 28 February 2021 additional 479.463 shares in treasury equalling €20.8 million.

On 5 March 2021 RHI Magnesita signed a new €65.0 million 1-year term loan. The interest rate is fixed at 0.1% and the final maturity of the loan is March 2022. The proceeds will be used for general corporate purposes and to repay higher interest-bearing debt.

After the reporting date on 31 December 2020, there were no 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 2020

(before appropriation of result)

in € million	Note	31.12.2020	31.12.2019
ASSETS			
Non-current assets			
Property, plant and equipment		0.3	0.0
Non-current financial assets	(A)	480.6	815.3
Securities		0.5	0.0
Deferred tax assets		10.6	7.4
Total non-current assets		492.0	822.7
Current assets			
Receivables from group companies		165.8	28.5
Other current receivables		0.6	0.0
Cash and cash equivalents	(B)	3.5	O.1
Total current assets		169.9	28.6
Total assets		661.9	851.3
EQUITY AND LIABILITIES			
Equity			
Shara appital		10 5	10 F

-47			
Share capital	(C)	49.5	49.5
Additional paid-in capital	(D)	361.3	361.3
Legal and mandatory reserves	(E)	25.7	197.9
Other reserves		206.3	95.0
Treasury shares	(F)	(21.5)	(18.8)
Result for the period	(L)	24.8	139.0
Shareholders' Equity		646.1	823.9
Current liabilities			
Other current liabilities	(G)	15.8	27.4
Total current liabilities		15.8	27.4
Total equity and liabilities		661.9	851.3
Company Statement of Profit or Loss for the period 1 January 2020 to 31 December 2020

in € million	Note	2020	2019
General and administrative expenses	(I)	(18.6)	(14.7)
Result before taxation		(18.6)	(14.7)
Net financial result	(L)	0.4	(1.5)
Profit before income tax		(18.2)	(16.2)
Net result from investments	(K)	40.7	147.8
Income tax		2.3	7.4
Net result for the period	(L)	24.8	139.0

Movements in Shareholders' Equity

				Legal and mandatory reserves			Other reserves		
in€million		Treasury shares		Cash flow hedges	Currency translation	Mandatory reserve	Retained earnings	Net result	Equity attributable to shareholders
31.12.2019	49.5	(18.8)	361.3	(11.0)	(79.8)	288.7	95.0	139.0	823.9
Appropriation of prior year result	_	_	_	_	_	_	139.0	(139.0)	_
Net result	_	-	-	_	-	-	-	24.8	24.8
Shares repurchased	_	(2.7)	-	-	-	-	-	-	(2.7)
Share-based expenses	_	-	-	_	-	-	(3.1)	-	(3.1)
Dividends	-	-	-	_	-	_	(24.6)	-	(24.6)
Net income / (expense) recognised directly in equity	_	_	_	(2.7)	(169.5)	-	_	_	(172.2)
31.12.2020	49.5	(21.5)	361.3	(13.7)	(249.3)	288.7	206.3	24.8	646.1

					Legal and manda	atory reserves	Other reserves		
in € million	Share Treasury capital shares	Share Treasury paid-ir	Additional paid-in capital	Cash flow hedges	Currency translation	Mandatory reserve	Retained earnings	Net result	Equity attributable to shareholders
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	_	_	_	O.1	(4.6)	_	(19.0)	_	(23.5)
lssue 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

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 NLOO12650360) 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.

Fiscal Unity

For corporate income tax and sales tax purposes. RHI Magnesita NV. Vienna Branch, acts as the head of a corporate tax group in Austria with the following companies:

- RHI Magnesita GmbH
- Veitscher Vertriebsgesellschaft GmbH
- "Veitsch-Radex" Vertriebgesellschaft GmbH
- Refractory Intellectual Property GmbH
- Veitsch-Radex GmbH
- Radex Vertriebsgesellschaft GmbH
- RHI Refractories Raw Material GmbH
- Lokalbahn Mixnitz-St. Erhard Aktien-Gesellschaft

Pursuant to the Collection of State Taxes Act, the company and its subsidiaries are both severally and jointly liable for the tax payable of the combination.

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; sub-sequently 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, see Note (7).

All income and expenses are settled through their intercompany (current) accounts.

Significant accounting policies

Non-current financial assets Investments in Group companies in the Company Financial Statements are accounted for using the equity method.

Receivables from Group companies

Accounts receivable are measured at fair value and are subsequently measured at amortized cost, less allowance for credit losses. The carrying amount of the accounts receivable approximates the fair value.

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:

		31.12.2020	31.12.2019
Name and registered office of the company	Country of core activity	Share in %	Share in %
RHI Magnesita Deutschland AG, 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	2020	2019
At beginning of year	815.3	915.5
Transactions with non-controlling interests without change of control	0.0	(23.5)
Capital contributions	0.0	107.0
Changes from currency translation and cash flow hedges	(172.1)	(7.5)
Changes from defined benefit plans	(O.2)	(28.1)
Equity settled transaction	(3.1)	4.1
Dividend distribution	(200.0)	(300.0)
Net result from investments	40.7	147.8
Balance at year-end	480.6	815.3

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):

		3	1.12.2020	3	51.12.2019
Ser. no.	Name and registered office of the company	Share- holder	Share in %	Share- holder	Share in %
1.	RHI Magnesita N.V., Arnhem, Netherlands				
	Fully consolidated subsidiaries				
2.	Agellis Group AB, Lund, Sweden	52.	100.0	52.	100.0
3.	Baker Refractories Holding Company, Delaware, USA	39.	100.0	39.	100.0
4.	Baker Refractories I.C., Inc., Delaware, USA	3.	100.0	3.	100.0
5.	Baker Refractories, Las Vegas, USA	39.	100.0	39.	100.0
6.	Betriebs- und Baugesellschaft mit beschränkter Haftung – Bebau, Wiesbaden, Germany	10.	100.0	10.	100.0
7.	D.S.I.P.CDidier Société Industrielle de Production et de Constructions, Valenciennes,France	10.	100.0	10.	100.0
8.	Didier Belgium N.V., Evergem, Belgium	67.,101.	100.0	67.,101.	100.0
9.	Didier Vertriebsgesellschaft mbH, Wiesbaden, Germany	10.	100.0	10.	100.0
10.	RHI Magnesita Deutschland AG, Wiesbaden, Germany	1.,52.	100.0	1.,52.	100.0
11.	Dutch Brasil Holding B.V., Arnhem, Netherlands	107.	100.0	107.	100.0
12.	Dutch MAS B.V., Arnhem, Netherlands	10.	100.0	10.	100.0
13.	Dutch US Holding B.V., Arnhem, Netherlands	107.	100.0	107.	100.0
14.	FE "VERA", Dnepropetrovsk, Ukraine	52.	100.0	52.	100.0
15.	Feuerfestwerk Bad Hönningen GmbH, Wiesbaden, Germany	112.	100.0	112.	100.0
16.	GIX International Limited, Dinnington, United Kingdom	113.	100.0	113.	100.0
17.	INDRESCO U.K. Ltd., Dinnington, United Kingdom	16.	100.0	16.	100.0
18.	Intermetal Engineers Private Limited, Mumbai, India	49.	99.9	49.	99.9
19.	INTERSTOP (Shanghai) Co., Ltd., Shanghai, PR China,i.l.	106.	100.0	106.	100.0
20.	Liaoning RHI Jinding Magnesia Co., Ltd., Dashiqiao City, PR China 1)	52.	83.3	52.	83.3
21.	LLC "RHI Wostok Service", Moscow, Russia	52.,70.	100.0	52.,70.	100.0
22.	LLC "RHI Wostok", Moscow, Russia	52.,70.	100.0	52.,70.	100.0
23.	Lokalbahn Mixnitz-St. Erhard Aktien-Gesellschaft, Vienna, Austria	92.	100.0	92.	100.0
24.	LWB Holding Company, Delaware, USA	53.	100.0	53.	100.0

		3	31.12.2020	3	51.12.2019
Ser. no.	Name and registered office of the company	Share- holder	Share in %	Share- holder	Share in %
25.	LWB Refractories Belgium S.A., Liège, Belgium	41.,112.	100.0	41.,112.	100.0
26.	LWB Refractories Beteiligungs GmbH & Co. KG, Wiesbaden, Germany	32.,53.	100.0	32.,53.	100.0
27.	LWB Refractories Hagen GmbH, Wiesbaden, Germany	112.	100.0	112.	100.0
28.	LWB Refractories Holding France S.A.S., Valenciennes, France	112.	100.0	112.	100.0
29.	Magnesit Anonim Sirketi, Eskisehir, Turkey 2)	52.	100.0	52.	100.0
30.	Magnesita Asia Refractory Holding Ltd, Hong Kong, PR China	28.	100.0	28.	100.0
31.	Magnesita Finance S.A., Luxembourg, Luxembourg	46.	100.0	46.	100.0
32.	Magnesita Grundstücks-Beteiligungs GmbH, Wiesbaden, Germany	46.	100.0	46.	100.0
33.	Magnesita International Limited, London, United Kingdom	46.	100.0	46.	100.0
34.	Magnesita Malta Finance Ltd., St. Julians, Malta	35.,112.	100.0	35.,112.	100.0
35.	Magnesita Malta Holding Ltd., St. Julians, Malta	41.,112.	100.0	41.,112.	100.0
36.	Magnesita Mineração S.A., Brumado, Brazil	31.,46.	100.0	31.,46.	100.0
37.	Magnesita Refractories (Canada) Inc., Montreal, Canada	3.	100.0	3.	100.0
38.	Magnesita Refractories (Dalian) Co. Ltd., Dalian, PR China	31.	100.0	31.	100.0
39.	Magnesita Refractories Company, York, USA	24.	100.0	24.	100.0
40.	Magnesita Refractories Mexico S.A. de C.V., Monterrey, Mexico	3.,4.	100.0	3.,4.	100.0
41.	Magnesita Refractories GmbH, Wiesbaden, Germany	112.	100.0	112.	100.0
42.	Magnesita Refractories Ltd., Dinnington, United Kingdom	3.	100.0	3.	100.0
43.	Magnesita Refractories Middle East FZE, Dubai, United Arab Emirates	31.	100.0	31.	100.0
44.	Magnesita Refractories S.C.S., Valenciennes, France	28.,112.	100.0	28.,112.	100.0
45.	Magnesita Refractories S.R.L., Milano, Italy	112.	100.0	112.	100.0
46.	Magnesita Refratários S.A., Contagem, Brazil	11.	100.0	11.	100.0
47.	Magnesita Resource (Anhui) Company. Ltd., Chizhou, PR China	30.	100.0	30.	100.0
48.	Mezubag AG, Freienbach, Switzerland	106.	100.0	106.	100.0
49.	Orient Refractories Limited, Mumbai, India	13.	66.5	13.	66.5
50.	Premier Periclase Limited, Drogheda, Ireland	13.	100.0	13.	100.0
51.	Producción RHI México, S. de R.L. de C.V., Ramos Arizpe, Mexico	85.,113.	100.0	85.,113.	100.0
52.	Radex Vertriebsgesellschaft m.b.H., Leoben, Austria	109.	100.0	109.	100.0
53.	Rearden G Holdings Eins GmbH, Wiesbaden, Germany	31.	100.0	31.	100.0
54.	Refractarios Argentinos S.A.I.C.M., San Nicolás, Argentina	46.,56.	100.0	46.,56.	100.0
55.	Refractarios Magnesita Chile S/A, Santiago, Chile	46.,54.	100.0	46.,54.	100.0
56.	Refractarios Magnesita Colombia S/A, Sogamoso, Colombia	46.	100.0	46.	100.0
57.	Refractarios Magnesita del Perú S.A.C., Lima, Peru	46.,56.	100.0	46.,56.	100.0
58.	Refractory Intellectual Property GmbH & Co KG, Vienna, Austria	59.,70.	100.0	59.,70.	100.0
59.	Refractory Intellectual Property GmbH, Vienna, Austria	70.	100.0	70.	100.0
60.	Reframec Manutenção e Montagens de Refratários S.A., Contagem, Brazil	46.	100.0	46.	100.0
61.	RHI Argentina S.R.L., Buenos Aires, Argentina	13113.	100.0	13.,113.	100.0
62.	RHI Canada Inc., Burlington, Canada	113.	100.0	10.,110.	100.0
63.	RHI Chile S.A., Santiago, Chile	16.,113.	100.0	16.,113.	100.0
64.	RHI Clasil Private Limited, Mumbai India 1)	10.,113.	53.7	10.,113.	53.7
65.	RHI Dinaris GmbH, Wiesbaden, Germany	101.	100.0	101.	100.0
66.	RHI Finance A/S, Hellerup, Denmark	70.	100.0	101. 70.	100.0
67.	RHI GLAS GmbH, Wiesbaden, Germany	101.	100.0	101.	100.0
68.	RHI India Private Limited, Navi Mumbai, India	101.	100.0	11.,113.	100.0

		3	31.12.2020	3	51.12.2019
Ser. no.	Name and registered office of the company	Share- holder	Share in %	Share- holder	Share in %
69.	RHI ITALIA S.R.L., Brescia, Italy	70.	100.0	70.	100.0
70.	RHI Magnesita GmbH, Vienna, Austria	1.	100.0	1.	100.0
71.	RHI Magnesita Distribution B.V., Rotterdam, Netherlands	72.	100.0	72.	100.0
72.	RHI Magnesita Trading B.V., Rotterdam, Netherlands	1.	100.0	1.	100.0
73.	RHI Magnesita Vietnam Company Limited, Ho Chi Minh City, Vietnam	83.	100.0	-	-
74.	RHI Magnesita Services Europe Gerbstedt GmbH, Gerbstedt/Hübitz, Germany	75.	100.0	75.	100.0
75.	RHI Magnesita Services Europe GmbH, Kerpen, Germany	10.	100.0	10.	100.0
76.	RHI MARVO S.R.L., Ploiesti, Romania	52.,107.	100.0	52.,107.	100.0
77.	RHI Magnesita Properties MO, LLC, Missouri, USA	108.	100.0		
78.	RHI Normag AS, Porsgrunn, Norway	52.	100.0	52.	100.0
79.	RHI Refractories (Dalian) Co., Ltd., Dalian, PR China	52.	100.0	52.	100.0
80.	RHI Refractories (Site Services) Ltd., Dinnington, United Kingdom	17.	100.0	17.	100.0
81.	RHI Refractories Africa (Pty) Ltd., Sandton, South Africa	52.,104.	100.0	52.,104.	100.0
82.	RHI Refractories Andino C.A., Puerto Ordaz, Venezuela	113.	100.0	113.	100.0
83.	RHI Refractories Asia Pacific Pte. Ltd., Singapore	70.	100.0	70.	100.0
84.	RHI Refractories Egypt LLC., Cairo, Egypt	52.,107.	100.0	52.,107.	100.0
85.	RHI Refractories España, S.L., Oviedo, Spain	10.,12.	100.0	10.,12.	100.0
86.	RHI Refractories France SA, Valenciennes, France 3)	105.	100.0	105.	100.0
87.	RHI Refractories Ibérica, S.L., Oviedo, Spain	105.	100.0	105.	100.0
88.	RHI Refractories Italiana s.r.l., Brescia, Italy; i.l.	105.	100.0	105.	100.0
89.	RHI Refractories Liaoning Co., Ltd., Bayuguan, PR China 1)	52.	66.0	52.	66.0
90.	RHI Refractories Mercosul Ltda., Sao Paulo, Brazil	107.,113.	100.0	107.,113.	100.0
91.	RHI Refractories Nord AB, Stockholm, Sweden	105.	100.0	105.	100.0
92.	RHI Refractories Raw Material GmbH, Vienna, Austria	1.,52.,70.	100.0	1.,52.,70.	100.0
93.	RHI Refractories Site Services GmbH, Wiesbaden, Germany	10.	100.0	10.	100.0
94.	RHI Refractories UK Limited, Bonnybridge, United Kingdom	10.	100.0	10.	100.0
95.	RHI Refratários Brasil Ltda, Contagem, Brazil; i.l.	13.,36.	100.0	13.,36.	100.0
96.	RHI Sales Europe West GmbH, Urmitz, Germany	10.,105.	100.0	10.,105.	100.0
97.	RHI Trading (Dalian) Co., Ltd., Dalian, PR China	52.	100.0	52.	100.0
98.	RHI Ukraina LLC, Dnepropetrovsk, Ukraine	52.,107.	100.0	52.,107.	100.0
99.	RHI United Offices America, S.A. de C.V., Monterrey, Mexico	85.,100.	100.0	85.,100.	100.0
100.	RHI United Offices Europe, S.L., Oviedo, Spain	85.	100.0	85.	100.0
101.	RHI Urmitz AG & Co. KG, Mülheim-Kärlich, Germany	9.,10.	100.0	9.,10.	100.0
102.	RHI US Ltd., Delaware, USA	13.	100.0	13.	100.0
103.	RHI-Refmex, S.A. de C.V., Ramos Arizpe, Mexico	85.,113.	100.0	85.,113.	100.0
104.	RHISA Employee Trust, Sandton, South Africa 4)		0.0		0.0
105.	SAPREF AG für feuerfestes Material. Basel, Switzerland	113.	100.0	113.	100.0
106.	RHI Magnesita Interstop AG, Hünenberg, Switzerland	10.,52.	100.0	10.,52.	100.0
107.	Veitscher Vertriebsgesellschaft m.b.H., Vienna, Austria	70.	100.0	70.	100.0
108.	Veitsch-Radex America LLC., Delaware, USA	102.	100.0	102.	100.0
109.	Veitsch-Radex GmbH & Co OG, Vienna, Austria	70.,110.	100.0	70.,110.	100.0
110.	Veitsch-Radex GmbH, Vienna, Austria	70.	100.0	70.	100.0
111.	Veitsch-Radex Vertriebsgesellschaft m.b.H., Vienna, Austria	70.	100.0	70.	100.0
112.	Vierte LWB Refractories Holding GmbH, Wiesbaden, Germany	26.,53.	100.0	26.,53.	100.0

		3	51.12.2020	3	51.12.2019
Ser. no.	Name and registered office of the company	Share- holder	Share in %	Share- holder	Share in %
113.	VRD Americas B.V., Arnhem, Netherlands	52.,70.	100.0	52.,70.	100.0
114.	Zimmermann & Jansen GmbH, Wiesbaden, Germany	10.	100.0	10.	100.0
	Subsidiaries not consolidated due to minor significance	•			
115.	DrIng. Petri & Co. Unterstützungsgesellschaft m.b.H., Wiesbaden, Germany	10.	100.0	10.	100.0
116.	Guapare S.A, Montevideo, Uruguay i.l	46.	100.0	46.	100.0
117.	Magnesita Refractories A.B., Stocksund, Sweden	112.	100.0	112.	100.0
118.	Magnesita Refractories PVT Ltd, Mumbai, India	53.,112.	100.0	53.,112.	100.0
119.	Magnesita Refractories S.A. (Pty) Ltd., Sandton, South Africa	41.	100.0	41.	100.0
120.	MAG-Tec Participações Ltda. Ltda., Contagem, Brazil; i.l.	46.	98.7	46.	98.7
121.	MMD Araçuaí Holding Ltda., São Paulo, Brazil, i.l.	46.	100.0	46.	100.0
122.	Refractarios Especiales Y Moliendas S.A., Buenos Aires, Argentina; i.l.	54.	100.0	54.	100.0
123.	Refractarios Magnesita Uruguay S/A, Montevideo, Uruguay	46.	100.0	46.	100.0
124.	RHI Réfractaires Algérie E.U.R.L., Sidi Amar, Algeria	86.	100.0	86.	100.0
	Equity-accounted joint ventures and associated companies	•			
125.	Magnesita Envoy Asia Ltd., Kaohsiung, Taiwan	3.	50.0	3.	50.0
126.	MAGNIFIN Magnesiaprodukte GmbH & Co KG, St. Jakob, Austria	52.,128.	50.0	107.,128.	50.0
127.	Sinterco S.A., Nameche, Belgium	53.	70.0	53.	70.0
	Other immaterial investments, measured at cost	•			
128.	MAGNIFIN Magnesiaprodukte GmbH, St. Jakob, Austria	52.	50.0	107.	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 RHI Magnesita Deutschland 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. As at 31 December 2020, RHI Magnesita N.V.'s issued and fully paid-in share capital consists of 49,008,955 ordinary shares (31.12.2019: 49,077,705 ordinary shares). For additional information on treasury shares see (F).

(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 (55) 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 2020, the Company repurchased 68,750 shares from the market for a total cash consideration of €2.7 million. In 2019, the Company repurchased 400,000 shares from the market for a total cash consideration of €18.8 million.

Current liabilities

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Total current liabilities	15.8	27.4
Accrued liabilities	5.4	1.4
Dividend payable	0.0	24.5
Payables to group companies	9.4	1.0
Trade payables	1.0	O.5
in € million	31.12.2020	31.12.2019
(G) Other current liabilities		

Accrued liabilities include two outstanding disputes relating to the delisting in Austria and the demerger to the Netherlands. As at 31 December 2020, the resulting liabilities are estimated at ≤ 0.2 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.

Total wages and salaries	11.2	1.3
Other employee costs	0.3	0.2
Pension contributions	0.4	0.0
Social security charges	1.0	0.0
Wages and salaries	9.5	1.1
in € million	31.12.2020	31.12.2019
(H) Employee benefits		

(I) General and administrative expenses

in € million	31.12.2020	31.12.2019
External services/consulting expenses	3.7	5.0
Cost for principal services Austria	2.2	8.3
Personnel expenses	11.2	1.3
Other expenses	1.5	O.1
Total general and administrative expenses	18.6	14.7

(J) Net financial result

The 2020 net financial result mainly consists of €0.3 million dividends received on shares held.

(K) Net results from investments

In year 2020 the full year results of the investments amount to a profit of €40.7 million (2019: €147.8 million) and are recognised in the Company Statement of Profit or Loss.

(L) Net result for the period

In 2020, 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	2020
Profit attributable to shareholders	24.8
In accordance with Article 27 clause 1 to be transferred to reserves	0.0
At the disposal of the General Meeting of Shareholders	24.8

For 2020, the Board of Directors will propose a dividend of €1.50 per share for the shareholders of RHI Magnesita N.V. The proposed dividend is subject to the approval by the Annual General Meeting on 10 June 2021.

Other notes

Number of employees

The average number of employees of RHI Magnesita N.V. during 2020 amounts to 48 (2019: nil).

Off balance sheet commitments

RHI Magnesita N.V. as an ultimate parent company provided a corporate guarantee of €1,086,5 million for the borrowings of the Group. The Borrowings are as disclosed in Note (25). Additionally €36.0 million of corporate guarantees are issued in favor of customers and suppliers of the Group.

Other information

Information regarding independent auditor's fees, number of employees of RHI Magnesita Group and the remuneration of the Board of Directors is included in Note (59), (60) to (62) of the Consolidated Financial Statements.

The Company has opened a branch in Vienna, Austria and started as of February 2020 to employ staff in the branch office and undertake services.

Material events after the reporting date

There were no material events after the reporting date other than those disclosed in note (63) of the Consolidated Financial Statements.

Vienna, 7 March 2021

Board of Directors

Executive Directors

Stefan Borgas

lan Botha

Non-Executive Directors

Herbert Cordt	John Ramsay
Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg	David Schlaff
Celia Baxter	Wolfgang Ruttenstorfer
Janet Ashdown	Karl Sevelda
Andrew Hosty	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 2020

Our opinion

In our opinion:

- the consolidated financial statements of RHI Magnesita N.V. together with its subsidiaries ('the Group') give a true and fair view of the financial position of the Group as at 31 December 2020 and of its result and 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;
- the company financial statements of RHI Magnesita N.V. ('the Company') give a true and fair view of the financial position of the Company as at 31 December 2020 and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the accompanying financial statements 2020 of RHI Magnesita N.V., Arnhem. 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 2020;
- the following statements for 2020: the consolidated statement of profit or loss, the consolidated statements of comprehensive income, changes in equity and cash flows; and
- the notes to the consolidated financial statements, comprising the significant accounting policies and other explanatory information.

The company financial statements comprise:

- the company balance sheet as at 31 December 2020;
- the company statement of profit or loss for the period 1 January to 31 December 2020;
- the notes, comprising the 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 for the consolidated financial statements and Part 9 of Book 2 of the Dutch Civil Code for the company financial statements.

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 regulations 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.

The impact from the COVID-19 pandemic on the world-wide economy characterised the financial year 2020. The global disruption impacted many of the Company's customers. This affected the Company's financial results and as a consequence our determination of materiality and our audit approach. Management considered the impact of COVID-19 on the financial statements. Primarily these considerations related to the implementation of a production optimisation plan, possible impairment of goodwill and other intangible assets and the recoverability of deferred tax assets. We have included these items as key audit matters in our auditor's report. In addition, as disclosed in the Company's viability statement the impact of COVID-19 has been included in the board's going concern assessment.

Following the COVID-19 outbreak, auditors are also facing challenges in performing their audits. In response to that, we have considered the impact of the pandemic on our audit approach and in the execution of our audit. The following highlights were part of the overall impact assessment we performed as part of our audit:

- We are working from home for most of the time now. Inquiries and meetings with management were done via video conferencing and the frequency of these inquiries and meetings was increased. Within the team we worked together using virtual audit rooms. The team was reminded of the importance of staying alert to the quality of evidence and to perform sufficient and appropriate tests over the audit evidence obtained to be satisfied that the company's records are complete, accurate and authentic. To be able to obtain sufficient and appropriate audit evidence, it was necessary to perform certain audit procedures, the 'business essentials', physically at our clients. An example is the attendance of inventory counts.
- The impact on the Company's control environment due to remote working. We assessed that the impact of the outbreak, including working in a remote environment, on the effective operation of controls during 2020 was limited.

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 9 of the 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 recognition and recoverability of deferred tax assets and the accounting for the impact of the production optimisation plan, we considered these matters as key audit matters as set out in the section 'Key audit matters' of this report.

Other areas of focus, that were not considered as key audit matters, were the planned divestment of two asset groups (Ireland and Norway), the provision for employee benefits (primarily in Austria and Germany) and the implementation of changes to the Company's IT systems in Brazil and India. In addition, we performed audit procedures on the items marked 'audited' in the remuneration report such as reconciling the disclosed remunerations to underlying supporting documents.

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, valuations, employee benefits, IT and corporate income taxes in our team. The outline of our audit approach was as follows:



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	€9.7 million (2019: €14.0 million).
Basis for determining materiality	We used our professional judgement to determine overall materiality. As a basis for our judgement we used 5% of profit before tax adjusted for exceptional items.
Rationale for benchmark applied	We used profit before tax adjusted for exceptional 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 exceptional items is an important metric for the financial performance of the Company.
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 be- tween €1.2 million and €7.9 million.

We also take misstatements and/or possible misstatements into account that, in our judgement, are material for qualitative reasons.

We agreed with the board of directors that we would report to them misstatements identified during our audit above €0.6 million (2019: € 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 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.

The group audit primarily focussed on the significant components:

- RHI Magnesita GmbH, Austria
- RHI US Ltd, USA; and,
- Magnesita Refratários S.A., Brazil.

We subjected three components to audits of their complete financial information, as those components are individually financially significant to the Group. We further subjected ten components to complete audits of their financial statements as they include significant or higher risk areas. Additionally, we selected fourteen components for audit procedures to achieve appropriate coverage on financial statements.

In total, in performing these procedures, we achieved the following coverage on the financial line items:

Revenue	87%
Total assets	84%
Profit before tax	71%

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.

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 held individual calls with each of the in-scope component audit teams during the year and upon conclusion of their work. During these calls, we discussed the significant accounting and audit issues identified by the component auditors, their reports, the findings of their procedures and other matters, which could be of relevance for the consolidated financial statements.

The group engagement team has previously visited the component teams and local management on a rotational basis. In the current year the group audit team no visits could be performed as a result of the COVID-19 travel restrictions. Therefore, we have performed remote file reviews for Brazil and Austria and held frequent video conferences with teams in Austria, Brazil, USA, Mexico, Switzerland, China and India. For each of these locations we reviewed selected working papers of the respective component auditors.

The group engagement team performed the audit work for the parent company RHI Magnesita N.V. as well as the Integrated Business Services office activities in Spain on areas such as fixed assets, accounts payable and accounts receivable, 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, 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.

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 management 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 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 the 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 paid specific attention to agent contracts and related commission expenses recorded by the Company and the Company's agent certification process.
- 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.

We considered the outcome of our other audit procedures and evaluated whether any findings or misstatements were indicative of fraud. If so, we re-evaluated our assessment of fraud risk and its resulting impact on our audit procedures.

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 the board of directors and/or those in charge with governance 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. 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 obtaining an understanding of Company's assessments and validating aspects of the investigations performed by the Company. With respect to the investigation into the Mexican misappropriation, we have assessed management's corrective actions for adequacy and assessed whether internal controls were re-enforced and strict adherence to the Company's Code of Conduct reiterated. We consulted our forensic specialists where considered appropriate in our professional judgement.

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 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.

Our audit work and observations

Accounting for the production optimisation program

Refer to note 9,33 and 38 of the consolidated financial statements

In 2019 the Company commenced with a plant rationalisation programme resulting in the plant closure in Hagen, Germany and partial shut-down of the plant in Trieben, Austria. This programme continued in 2020 with the facilities in Mainzlar and Kruft (Germany). Furthermore, during 2020 the rationalisation of the Company's production facility Refratec, Brazil was announced (see note 38).

As a result, the Group incurred €74.6 million of expenses in relation to the production optimisation plan consisting of restructuring expenses for €46.5 million and €28.1 million of asset write-downs in 2020. In addition, as disclosed in Note 5, the Group entered into an agreement to sell its plants in Norway and Ireland, resulting in an impairment loss of €18.7 million. These amounts are reported as adjusted items in the Group's alternative performance measures.

This key audit matter relates to the recognition of the restructuring cost and the expected cost to be incurred (see note 38 to the financial statements) as well as the accuracy of the asset write 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 and the timing of recognition. We enquired management about 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 validated that the held for sale accounting guidance of IFRS 5 was appropriately applied to the planned sale of the plants in Norway and Ireland.

We tested the mathematical and methodological 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. We reconciled the journal entries to the amounts calculated and validated.

Regarding the asset impairments, we have assessed the appropriateness of the calculations made by the company and reconciled the asset write-downs to the general and sub ledger accounts. We challenged management for the underlying assumptions used in the impairment calculation, e.g. residual values, and likelihood of transferring assets to alternative locations based on the nature of the asset.

We assessed the completeness and accuracy of disclosures within the financial statements in accordance with IFRSs.

Based on the audit procedures performed, we found the Group's estimates and judgment used in the accounting for the plant rationalisation programme reasonable.

Recognition and recoverability of deferred tax assets

Refer to note 7.9.16 and 44 of the consolidated financial statements

The Group recorded deferred tax assets for tax loss carry-forwards and deductible temporary differences arising on various items for the amount of €199.2 million. During 2020, additional deferred tax assets were recognised in the Netherlands, primarily for restructuring losses. Reference is made to note 16 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 We have requested and obtained evidence for the existence and accuracy of the tax loss carry-forwards and assessed the expiration dates per jurisdiction. Where there was uncertainty around the acceptance of losses by the tax authorities, we requested and received a tax opinion from the Group's tax advisor and an acknowledgement from the tax authorities of the Company's waving of the Advanced Pricing Agreement in the Netherlands per December 2020.

Together with our local tax specialists, we have assessed per tax jurisdiction the level of potential offsetting of the deferred tax assets with the deferred tax liabilities.

effect on income tax, taking into account the available carry-forward period. 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 judgement involved, we considered the recoverability of deferred tax assets to be a key audit matter for our audit. 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 remaining carryforward 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.

Valuation of goodwill and other intangible assets

Refer to note 7, 9, 10, 11, and 38 of the consolidated financial statements

The Group capitalised goodwill for €110.8 million, mainly related to the acquisition of the Magnesita Group in 2017. In addition, the company capitalised intangible assets for €265.7 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 signs 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. 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 management

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.

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 O to 75 of the annual report;
- the section governance on pages 76 to 126 of the annual report, which includes the remuneration report on pages 117 to 126 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 and the sections 2:135b and 2:145 subsection 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 and section 2:135b subsection 7 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, except for the audit performed on information in the remuneration report that marks 'audited'.

Management is 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 and the remuneration report in accordance with the sections 2:135b and 2:145 subsection 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 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 four 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 59 to the financial statements.

Responsibilities for the financial statements and the audit

Responsibilities of management and the board of directors for the financial statements Management is 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
- such internal control as management determines 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, management is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, management should prepare the financial statements using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. Management 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, 7 March 2021 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 2020 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 management.
- Concluding on the appropriateness of management's 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 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 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 actions taken to eliminate threats or safeguards applied.

From the matters communicated with 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 Full 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 results at constant currency

FY 2020 figures presented at constant currency represent FY 2019 reported figures translated at average 2020 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 income 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 borrowings and leases.

Return on invested capital (ROIC)

ROIC is calculated as adjusted net operating profit after tax (NOPAT), divided by total invested capital for the year. Invested capital is a

sum of non-current assets including deferred tax assets, trade and other current receivables, inventories and income tax receivables less other non-current financial assets, deferred tax liabilities, trade and other current liabilities, income tax liabilities and current provisions. Adjusted net operating profit after tax (NOPAT) is calculated as sum of Adjusted EBITA, amortisation expense and result from joint ventures less income taxes paid.

Liquidity

Liquidity is measured by adding up cash and cash equivalents as well as an unutilised credit facility amounting to €600.0 million.

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 Company shares, represented by depository interests, of RHI Magnesita N.V, are listed on the Premium Segment of the Official List on the Main Market of the London Stock Exchange, and RHI Magnesita N.V holds a secondary listing on the Vienna Stock Exchange (Wiener Börse).

Ticker symbol: RHIM ISIN Code:NLO012650360

Investor information

The Company's website www.rhimagnesita.com provides information for shareholders and should be the first port of call for general queries. The Investors section (https://ir.rhimagnesita.com/) contains details on the current and historical share price, analyst presentations, shareholder meetings as well as a "Shareholders Information" section. Annual and Interim Reports can also be downloaded from this section. You can also subscribe to an "Investors mail 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 dividend payments, or a change of address: Computershare Investor Services PLC The Pavilions, Bridgwater Road Bristol BS99 6ZZ United Kingdom www.computershare.com/uk T: +44 (0) 370 702 0003

Financial calendar

Q1 Trading Update 5 May 2021 Annual General Meeting 10 June 2021 Half Year Results 28 July 2021

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