RHI MAGNESITA

Solutions that shape tomorrow's world

Annual Report 2022

Contents

We are RHI Magnesita

We offer refractory products, customised services and innovative solutions that help shape tomorrow's world. Our advanced products are essential for our customers in the steel, cement, metals, glass and chemicals industries to operate. The end markets driving demand for our products include the construction, infrastructure, automotive, machinery, electronics and energy sectors.

Our purpose

Our purpose is to **master heat**, enabling global industries to build **sustainable modern life**.

Our values

At RHI Magnesita, we believe in an ethical workplace, performing our roles with **integrity, honesty, reliability and in respectful collaboration** with each other. Extending these ethical behaviours to interactions with all of our business partners is vital for the long term sustainable success of RHI Magnesita.

Our highlights

Revenue
€3.3bn
2021: €2.6bn

Adjusted EBITA
€384m
2021: €280m

Adjusted earnings per share
€4.82
2021: €4.52

Profit attributable to equity share
€226m
2021: €215m

Net debt: Adjusted EBITDA
2.3x
2021: 2.6x

Dividend per share
€1.60
2021: €1.50 per share

Adjusted operating cash flow
€155m
2021: €(254)m

Long term injury frequency
0.20
2021: 0.19

Reduced CO_2 emissions
1.74t CO_2/t
2021: 1.82 t CO_2/t

Recycling rate
10.5%
2021: 6.8%

R&D and technical marketing
€77m
2021: €63m

Read more on our APMs[A]
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[A]Alternative Performance Measures (APMs) are used by the Board to monitor underlying performance at a Group and operating segment level, which are applied consistently throughout. These APMs should be considered in addition to, and not as a substitute for, or as superior to statutory measures. For more information on APMs, see the APM section.

Investment case

01 Sustainability leadership

- We are a sustainability leader in the global refractory industry, with a strong market share in electric arc furnace refractories and proprietary technology for increasing the use of secondary raw materials without loss of refractory performance, significantly reducing CO_2 emissions. We achieved a recycling rate of 10.5% in 2022 (2021: 6.8%) and our lowest CO_2 emissions intensity since the merger of RHI and Magnesita in 2017

02 Investment driven value creation

- Capital expenditure of c.€400 million over the period 2019-2022 including the Production Optimisation Plan that is expected to deliver material cost savings from 2023
- Successful M&A growth in target markets of India, China and Türkiye. Balanced and dynamic approach to capital allocation encompassing organic growth, M&A, sustainability and shareholder returns

03 Margin resilience and significant growth opportunity

- Lower conversion costs following plant consolidation, specialisation and modernisation. Essential nature of products underpins double digit EBITA margin performance throughout multiple business cycles
- Market share opportunities in heat management solutions, flow control, non-basic refractories and high-growth geographies of China, India and Türkiye

04 Leadership in the refractory industry

- Market leader in the refractory industry with a c.15% market share in a €20bn industry for industrial applications exceeding temperatures of 1,200 °C
- Clear market leader in the Americas, Europe and Middle East
- Full range of products and services enables heat management solution offering

05 Strong competitive position with vertical integration

- Vertical integration with low-cost, high quality magnesite and dolomite raw material assets providing security of supply
- Technological leadership through innovation, with €77 million of R&D and technical marketing spend in 2022 including low-CO_2 emission products. New products represented 19% of revenue (2021: 16%)

Refractory customers and end markets

Refractories are used in almost every industrial process involving temperatures of 1,200°C and above, protecting equipment from the effects of heat and corrosion. Refractories are made from inorganic, non-metallic material that can withstand extremely high temperatures while maintaining their form and function during long periods of contact with molten slag, metals or chemicals. Magnesium oxide (MgO) is one of the key compounds used in RHI Magnesita refractory products and has a melting point of 2,800°C which enables its use across many refractory applications.

Refractories are specialist materials used in industrial processes

Refractories can withstand high temperatures and corrosive environments but they are consumed during use, at varying rates depending on the application. For example, up to 15 kg of refractories are required per tonne of steel production compared with 1 kg per tonne of cement production.

Refractory consumption is an operating expenses for the steel industry

Replacement cycles for refractories in the steel industry range between four hours and six months whilst other industries have longer replacement cycles. Refractories in cement kilns are replaced annually, whereas in the glass and non-ferrous metal industries refractory linings are replaced up to every ten years and re-linings are classed as capital expenditure.

RHI Magnesita is the leading refractory group worldwide

RHI Magnesita serves thousands of industrial sites worldwide with a c.15% market share in the global steel market and c.30% share of the cement market.

	Steel	Cement	Glass	Non-ferrous metals	Industrial applications[2]
Refractory demand for 1 tonne	~10 to 15 kg	~1 kg	~4 kg	Copper ~3 kg	EEC NA
Temperature	1,760°C	1,500°C	1,650°C	1,350°C	2,000°C
Lifetime	c.4 hours – 6 months	Annually	Up to 10 years	1–10 years	1–20 years
% of customers' costs	c.3%	c.0.5%	c.1%	c.0.2%	c.0.2%
% of global market share by customer market	c.15%	c.30%[1]	c.20%	c.30%	c.5%

1. Change of scope following acquisitions in India industrial.
2. Industrial applications includes energy, environment, chemicals, foundry and aluminium.

How our customer industries relate to end-user markets

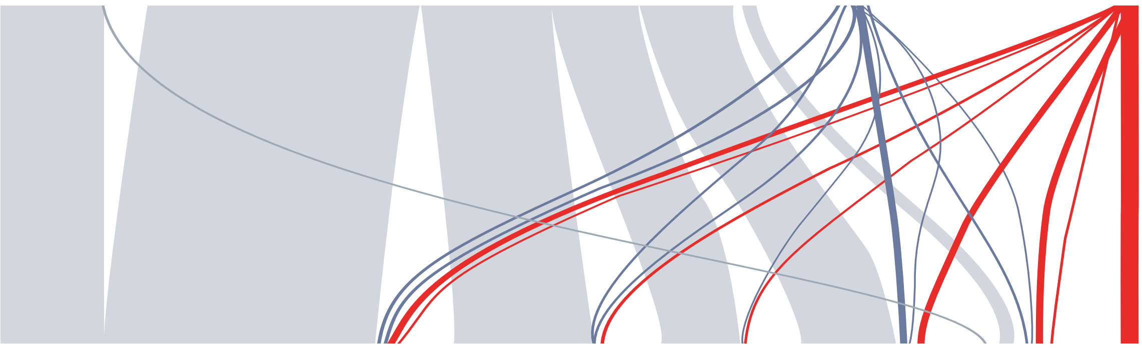
Demand for refractories is driven by industries requiring advanced heat-resistant materials for their production processes, being predominantly the steel, cement/lime, non-ferrous metals, glass, energy and chemicals industries. End market demand determines the level of production required by industry, and the volume of refractories required is closely linked to the amount produced.

The most important end markets for the refractory industry are construction, automotive and transport, machinery and equipment, electronics and consumer goods as well as energy, oil, gas and petrochemicals. These end markets were impacted by disruptive themes which emerged or persisted during 2022 and are contributing factors in the 2023 outlook.

Customer industries

% of 2022 revenue.

Cement	Steel	Industrial applications	Non-ferrous metals
11%	71%	11%	7%



End markets outlook

The outlook for end market demand in 2023 and 2024.

45%	17%	10%	15%	Other	5%

Construction[1]	Automotive[2]	Machinery[3]	Electronics and consumer goods[4]	Energy[5]
2023: 1.2%	**2023: 3.7%**	**2023: 1.7%**	**2023: 2.2%**	**2023: 2.2%**
2024: 3.6%	2024: 6.6%	2024: 3.6%	2024: 2.2%	2024: 1.2%

1. Construction value added, CRU GEO DEC2022.
2. Production of cars and commercial vehicles, CRU GEO Dec. 2022.
3. IP global, CRU GEO DEC2022.
4. Internal estimates based on Global Economic Outlook, CRU DEC 2022.
5. Energy demand by scenario, 2018-2030 — Charts — Data & Statistics - International Energy Agency (IEA).

Trends

We are agile and proactive in pursuing opportunities and managing risks posed by the rapidly changing global environment.

Supply chain volatility

Post-pandemic supply chain inefficiencies continued in 2022, in the form of high shipping costs, shortages of containers and unavailability of component supplies. Supply chain disruption started to normalise towards the end of the year.

Political trade barriers

Trade policy uncertainty and risk of fragmentation increased in 2022, following the Russia/Ukraine conflict and the sanctions that were imposed on Russia. Increased polarisation of trading blocs could lead to reduced investment and GDP losses in 2023, particularly for those with high trade restrictions.

Labour shortages

Global labour shortages was a big challenge in 2022, in a post-pandemic market. Key drivers of shortages included immigration disruptions, a shift in worker expectations, wage growth below inflation and ageing populations.

Global energy crisis

Shortages in the oil, gas and electricity markets caused record high prices during 2021 and 2022. This was driven by a variety of factors in the aftermath of the COVID-19 pandemic, including the rapid economic rebound in 2021 and the Russia/Ukraine conflict.

Decarbonisation

Decarbonisation is an increasingly important trend, affecting RHI Magnesita, its customers and its end markets. Industries are reducing their carbon footprint through new and innovative technologies, in order to be aligned with the Paris Agreement and comply with new policies and regulations such as Emissions Trading Schemes (EU ETS, China National ETS) and the European Carbon Border Adjustment Mechanism (EU CBAM).

Global footprint with local for local strategy

Our global network of raw material sites, refractory plants, sales offices and R&D centres enables us to be a trusted partner for our customers. Our global footprint enables us to supply a full range of refractory products, services and solutions to almost anywhere in the world.

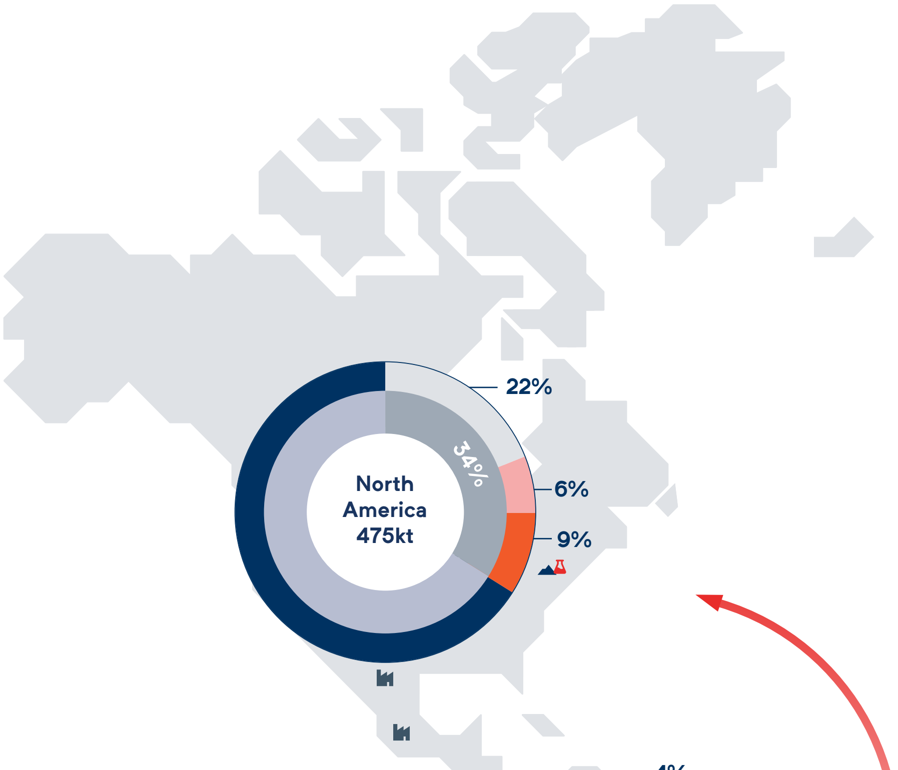
Our global network has been consolidated and modernised by the Production Optimisation Plan, progressing our "local for local" strategy. We aim to reduce movements of raw materials and finished goods, thereby lowering costs and improving reliability and security of supply for our customers.

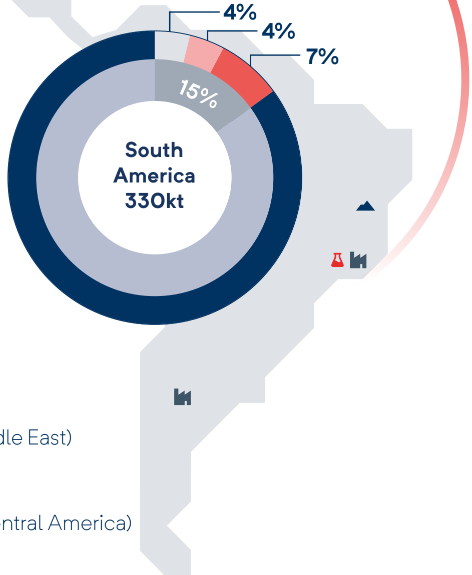
Our supply chain

Our production plants are strategically located close to raw material production sites, and we export the raw materials to customers all over the world. In 2021 and 2022, global markets and disrupted supply chains, including major shipping routes used by RHI Magnesita, started to re-open post pandemic. Meanwhile in 2022, the global energy shortage led to European production sites diversifying away from natural gas to liquified petroleum gas (LPG).

The following map shows the volume of production in each region, identifying the proportion of domestic production for local sales alongside the proportion of imported goods (indicating where they have come from). The map also indicates raw material movements, either from an internal mine or external source.

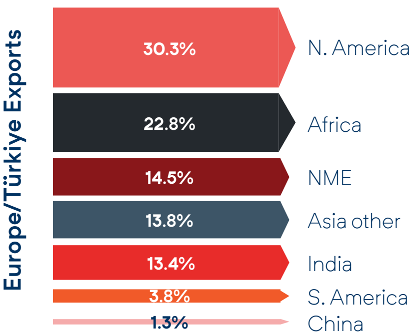
Proportion of domestic production compared to imported goods, for local sales



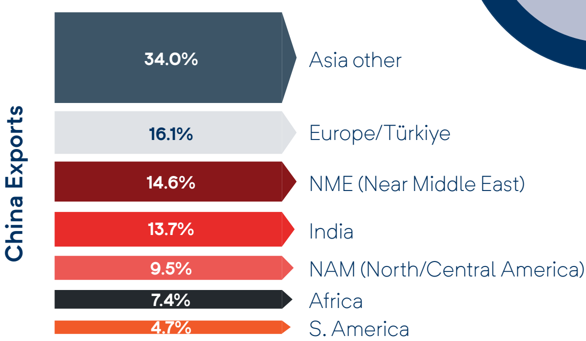


Destination from key exporting regions

Europe/Türkiye (kt)
Total production: **832**
Total sold locally: **480**



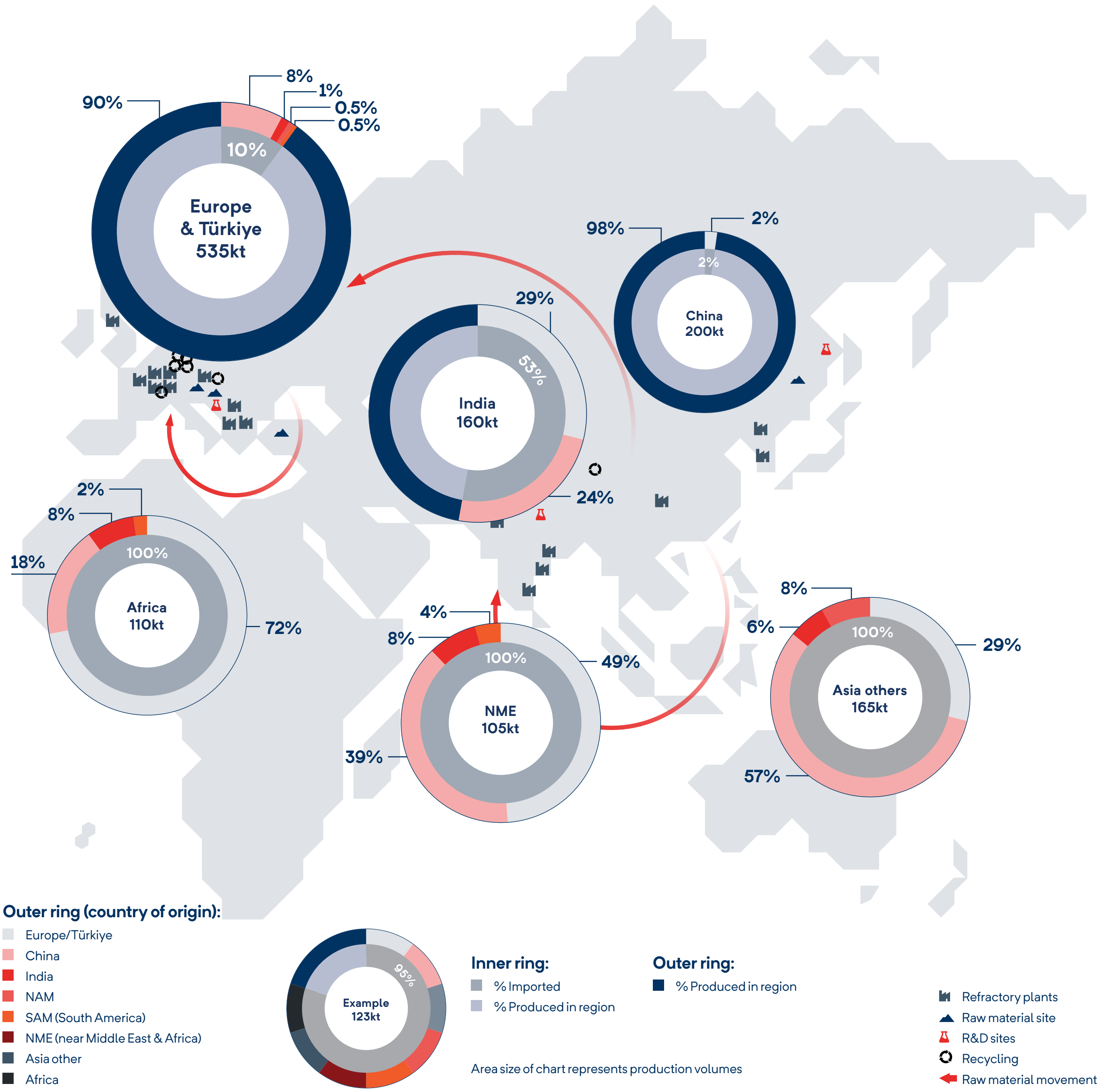
China (kt)
Total production: **473**
Total sold locally: **196**



Case study: Europe

Europe and Türkiye have ten production facilities and four raw material sites as well as seven recycling facilities including the new joint venture, Horn & Co. As a mitigation against potential shortages of gas supplies, most sites in Germany and Austria completed the preparation by December 2022 to use LPG or light oil as an alternative to pipeline gas from 2023 onwards. The Group also purchased 75GWh of natural gas for physical storage in Austria. A large proportion of exports from Europe are sent to North America, NMEA, East Asia, China and India. We succeeded to pass higher European energy cost as well as energy surcharges from European raw material suppliers on to our customers in North America and NME. However, it was more difficult in Asia. In response to higher energy cost in Europe, some production was shifted to India.

Whilst some freight rates improved during H2 2022, for example inbound to Europe from China, inbound freight lanes to North America continued to be very high cost. Given continued freight disruption, the Group carried high inventory levels in Europe during the year however this normalised towards the end of 2022.



The drive for decarbonisation

Steel production makes up 7% of global carbon emissions and the simplest way to decarbonise is through scrap steel use via electric arc furnace. RHI Magnesita is the clear market leader in electric arc furnaces (EAFs) refractories. Steel also has an important role to play in greener infrastructure such as wind power and electric vehicles.

The blast furnace and basic oxygen route (BF-BOF) currently emits up to four times more carbon than an EAF powered by renewable electricity. While the end-product requirements do not allow for a like-for-like technology swap, reducing the emissions of both routes, but particularly of the BF-BOF, is today a main challenge of the industry, and will continue to be so in the next decades.

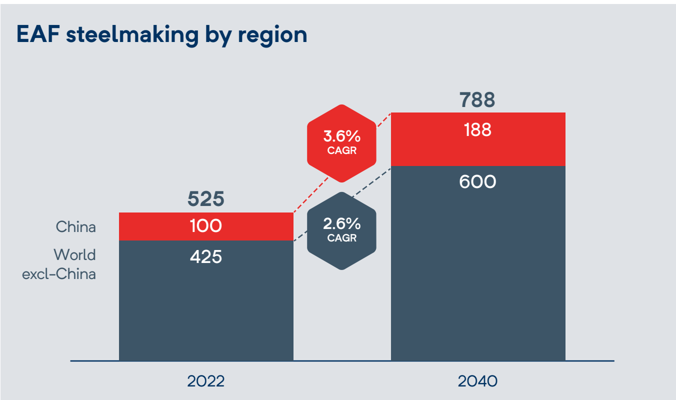
To tackle this challenge, there are several technologies the industry considers. This ranges from Carbon Capture, Utilisation & Storage (CCUS) that offsets unabated emissions from CO_2 intensive legacy technologies, to large-scale adaptations of previously niche technologies such as Direct Reduced Iron (DRI), an eventual adoption of green hydrogen along the production chain, and to the more disruptive smelting processes such as Boston Metals' Molten Oxide Electrolysis (MOE) using renewable energy.

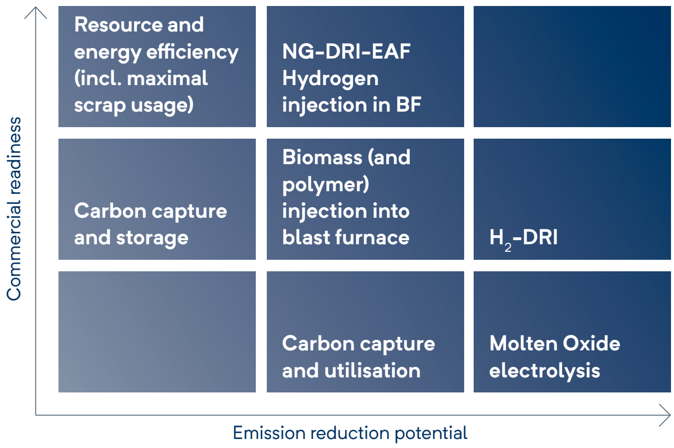
Novel smelting technologies and the introduction of hydrogen into more conventional steelmaking remains heavily in focus as the ultimate route for steelmakers to reach net-zero emissions. However, these smelters technology are far away from being commercially available and economically proven, and extensive new infrastructure is required to succeed with the transition to hydrogen. Moreover, hydrogen needs to be priced at below $2/kilogramme to ensure competitive steel-making cost.

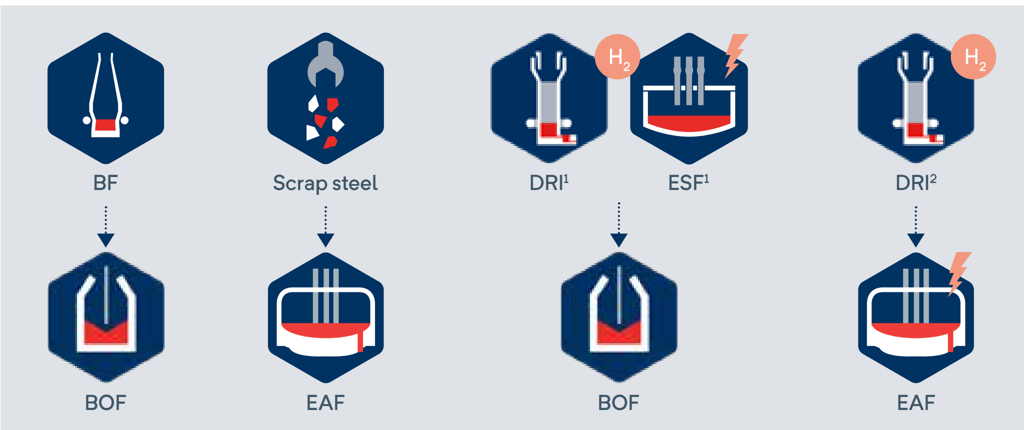
A more feasible and lower risk adaptation is the proliferation of DRI usage, not only in the EAF route (a niche segment operating for decades), but to also substitute the blast furnace in the BF-BOF route. While DRI consumption in the EAF route is not a new technology, it requires high-grade iron ore as input. As this niche grows strongly in the next decades, high-grade iron ore demand will grow materially whilst availability is expected to remain limited.

This constraint has driven research and development of steelmakers, equipment manufacturers and RHI Magnesita to focus efforts in a novel DRI-smelter aggregate. This new aggregate lowers ore-grade requirements (therefore lowering barriers for adoption and upscaling) and produces liquid iron comparable to the hot metal of a blast furnace, at a fraction of its CO_2 emissions. At the same time, this set-up allows steelmakers to continue to use already existing equipment (e.g. basic oxygen furnaces and secondary metallurgy) effectively lowering the capital expenditure and complexity required for the implementation, while still making a step-change lower in CO_2 emissions.

This is a particularly relevant development for RHI Magnesita as this aggregate's set-up mimics the refractory requirements of special EAFs used in the non-ferrous metals industry, where RHI Magnesita is the global market leader.







BF: Blast furnace

BOF: Basic oxygen furnace

DRI: Direct reduced iron

EAF: Electric arc furnace

H_2 Green hydrocarbon

Renewable electricity

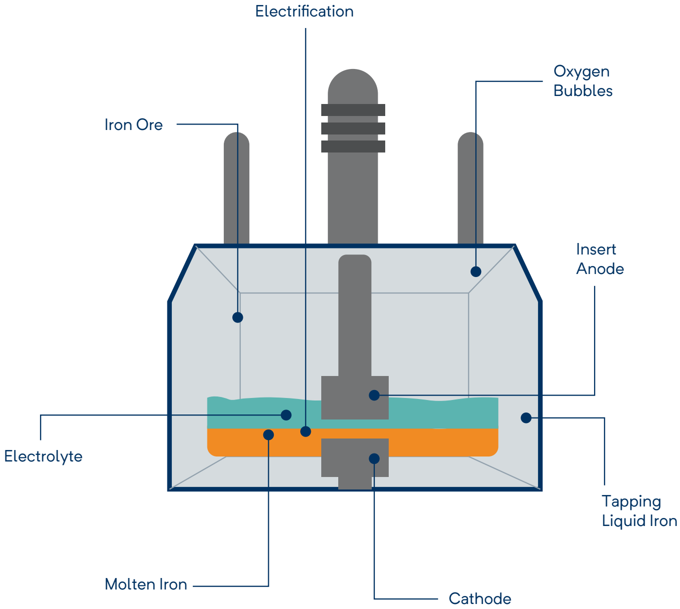
1. Route suitable for all grades of iron ore (with ESF).
2. Route suitable for high grade iron ore only.

RHI Magnesita's partnership with Boston Metal

Boston Metal is pioneering a new route for the primary steel-making process by the means of MOE. Instead of the traditional route that uses carbon to reduce iron ore, i.e. to separate the iron from the oxygen in the ore, the MOE process uses direct electric current to reduce iron ore. The ore is melted in an oxide electrolyte at temperatures around 1,600 °C and the electrons that pass through the molten bath separate the iron from the oxygen, generating as a by-product oxygen gas instead of the normal mixture of CO and CO_2. See equations below. The result is clean, high-purity liquid metal that can be sent directly to ladle metallurgy without the need for reheating. The process can be used with all iron ore grades. The MOE process eliminates the need for coke production, iron ore processing, blast furnace reduction and basic oxygen furnace refinement. It can also replace the need for natural-gas fed DRI production. The Company is also exploring the technology for other high-value metals such as niobium and vanadium and is investing in a pilot plant in Brazil. The new technology is expected to reach commercialisation for steel by 2026. Since 2019, RHI Magnesita has been a leading partner for Boston Metal.

Normal process for iron production: $Fe_2O_3 + 3C \Rightarrow 2Fe + 3CO$; Iron is rich in carbon (approx. 4.2%).

MOE process: $2Fe_2O_3 + e- \Rightarrow 4Fe + 3O_2$; iron is pure and doesn't need BOF to decarbonise.



Non-ferrous metals

The role that non-ferrous metals will play in industry-wide carbonisation is very important, specifically non-ferrous metals which are a typically 35-40% gross margin industry for RHI Magnesita.

Aluminium, copper and nickel are projected to grow materially by 2040, with significantly increased demand from the energy transition sectors, particularly from electric vehicles (EVs) and the grid. More metals will be used in the battery component of the EV as well as the vehicle itself. The grid and energy storage will be required to support increased clean electricity generation.

29 Cu	28 Ni	13 Al

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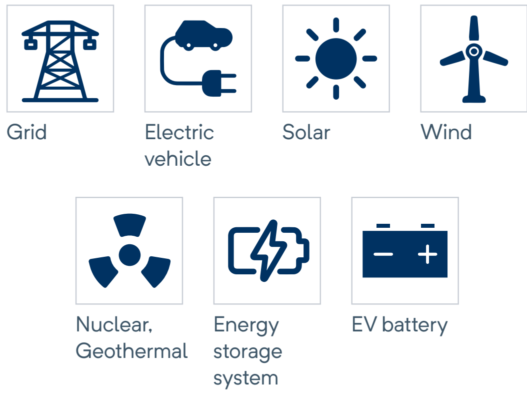


Business model

What we do

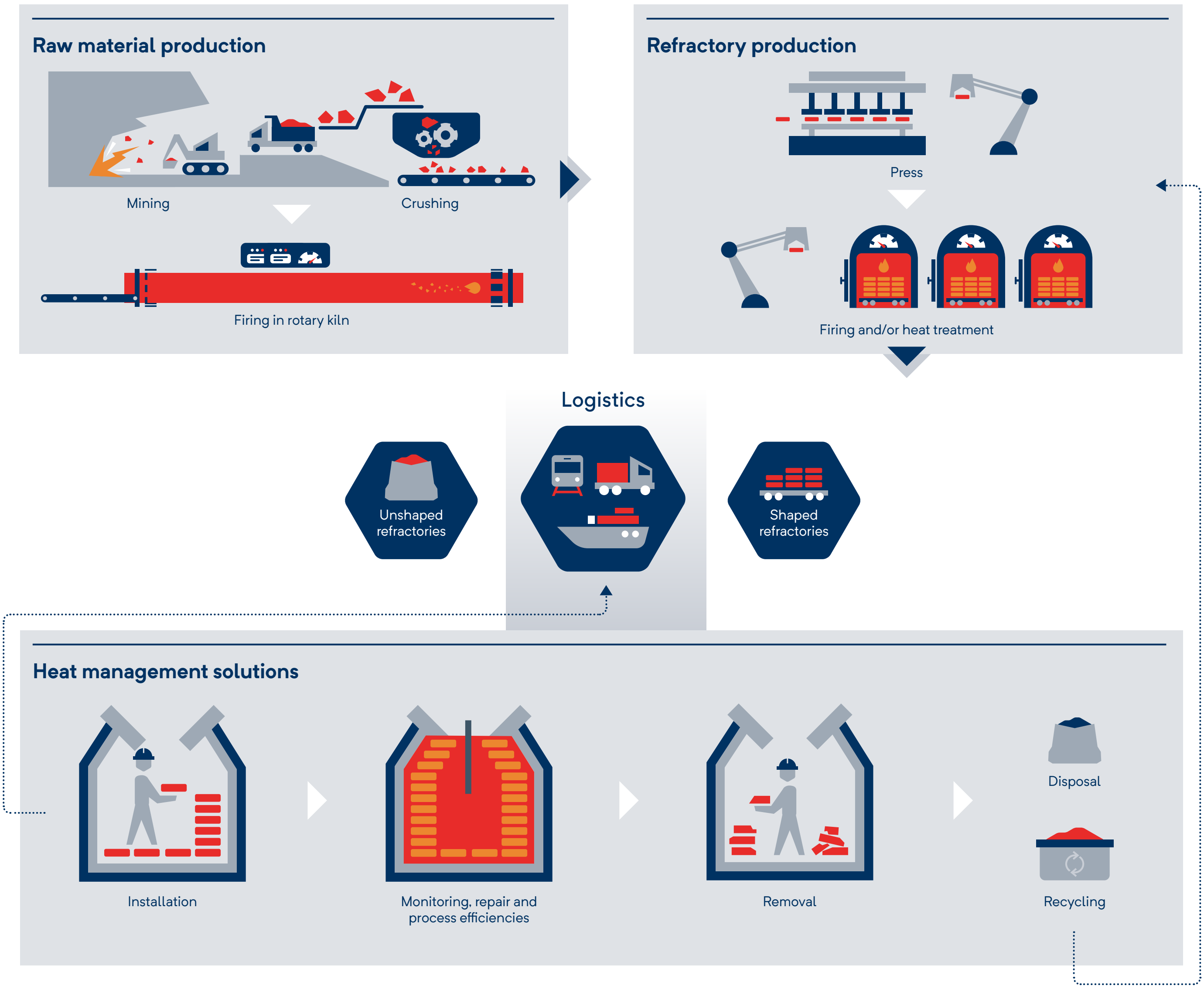
We offer our customers high-quality refractory products, supported by industry-leading R&D and underpinned by our vertically integrated structure which provides certainty of supply of low-cost, high-quality magnesite-based raw materials.

We mine and process c.50% of the raw materials used in our production facilities from internal sources. At our production facilities, the mixing, pressing, and firing of refractories takes place. In addition to the refractory product itself, we offer solutions to our customers including logistics, design, installation, monitoring, recycling and disposal. Our suite of digital products provides our customers with intelligence and insights into the refractory lifecycle at their plants, improving productivity and driving efficiencies. Our comprehensive product range and expertise enables us to offer full heat management solutions to customers who are seeking to improve production efficiency and lower their costs and environmental impacts. This unique service offering is one of our key differentiators. Heat management solutions contracts made up 32% of revenue in 2022 (2021: 29%).

Refractory products are used in all high-temperature industrial processes to protect equipment in a plant from hot molten metal. Without refractories, key industries such as steel, cement, metals, glass, energy and chemicals could not operate. Refractories withstand hostile conditions including heat and chemical corrosion, maintaining their form and function at temperatures over 1,200 °C. They protect equipment such as furnaces and kilns against thermal, mechanical and chemical stress.

RHI Magnesita has customers all over the world, and serves them through its global footprint, spanning North and South America, Europe, China, India, the rest of Asia and the Middle East. Around 70% of revenue is generated from selling refractory products and solutions to our steel customers, with the remaining c.30% of revenue generated from other industrial customers (including industries such as cement, non-ferrous metals, glass and industrial applications).

The main product groups include refractory bricks or mixes, and more specialised flow control products such as slide gates, nozzles and plugs.



Our value chain

High-quality raw materials sourcing, production and recycling

We have a unique ability to cover and service every step of the value chain, through our vertical integration and we offer distinctive customer solutions based on our technological leadership, expertise and cost competitiveness.

Our low-cost raw material assets make a positive contribution to Group margins, when compared to the cost of acquiring equivalent raw materials from external suppliers. In 2022, this contributed 2.5% towards a 11.6% margin.

One of the most important raw materials for refractory production is magnesite, which the Group mines in both underground and surface mines. Magnesite ore is crushed and fired at 1,800°C in special kilns. During this process, CO_2 is released, and density is increased as $MgCO_3$ is calcined to MgO.

Installation, monitoring and complex issue solving

A key component of RHI Magnesita's ability to add value lies in our solutions offering, which includes the installation, monitoring, repair, removal and recycling of refractory products at customer sites by experienced employees.

Digital monitoring products allow us to observe refractory performance, safely extending the usable life of the refractory, whilst remote gunning solutions can carry out intermediate repairs while the refractory is in use.

After use in a customer's production process, some residual refractory linings can be removed and reused, as secondary raw materials in the production of new refractories. One tonne of secondary raw material contributes to a saving of 1.8 tonnes of CO_2, compared to if the product had used virgin raw material.

RHI Magnesita therefore operates across the entire cycle from raw material production to recycling of spent material into new finished products. Thanks to a new joint venture with Horn & Co. to form Horn & Co. RHIM Minerals Recovery GmbH ("MIRECO"), we reached our 2025 recycling target of 10% three years early.

Product marketing, sale and delivery

RHI Magnesita has more than 70 sales offices worldwide and services customers in more than 100 countries. We operate 33 production sites including seven raw material sites (excluding recycling centres), strategically located in order to serve our customers as efficiently as possible.

The closer we work with our customers, the greater the difference we can make for them. Having a global network of offices, research centres and production sites is important to us, and to them.

Production of refractories

Raw materials are mixed and combined with chemical additives to be sold as mixes, or some are further processed into shaped refractory products. Shaped refractory bricks are pressed into different sizes and shapes depending on the specific application, employing pressures of up to 3,200 tonnes.

After pressing, shaped refractory bricks are tempered at temperatures of up to 350°C and may be further subjected to firing at 1,800°C in tunnel kilns for a number of days. Unfired products are primarily used in the steel industry, whilst the main applications for fired products are in the cement, non-ferrous metals, process and mineral industries.

Innovation, research and development

One of the fundamental drivers of our business model is innovation and R&D, supported by strong internal expertise in materials technology and digitalisation. RHI Magnesita continues to drive innovation, with significant opportunities identified in the fields of automation, robotics and sustainability, and aims to devote 2.2% of revenues per year to R&D and Technical Marketing. Investment in R&D and Technical Marketing in 2022 was €77 million, representing 2.3% of revenues. We are committed to protecting the integrity of our expanding intellectual property, and currently have 1,674 active patents and 1,719 active trademarks globally. New products launched in the last five years represented 19% of revenue in 2022 (2021: 16%).

How we engage with our stakeholders
Page 106

Chairman's statement

The Board remains committed to the Group's three-pillared strategy to invest in improving its competitive position, expanding the business model and growing in new markets.

Herbert Cordt
Chairman

2022 was a year of great challenges for global industry. The world emerged from COVID-19 restrictions, the Russia/Ukraine conflict drove a surge in energy costs and other inflationary pressures, COVID-19 lockdowns in China caused a dramatic slowdown to its economy and supply chain volatility, which started in 2021, and persisted through 2022. It is difficult to recall a time when so many of our customer markets, and our own operations, were impacted by so many challenges at the same time. Despite these pressures, I am very pleased to say that the Group delivered a strong performance and has emerged from 2022 stronger and better placed to withstand future shocks. This is thanks, in large part, to the decisive actions of the Group's management team, building on the natural resilience of RHI Magnesita's efficient, integrated business model and our leadership across global markets.

Reacting to volatility

The essential nature of our products and the depth of our customer relationships have enabled us to maintain margins in 2022 through a price increase programme, offsetting unprecedented cost inflation. The benefits of this are reflected in our financial results. Refractories are not a discretionary purchase; our customers in the steel, cement, glass, non-ferrous metals and other high-energy industrial processes cannot operate without our products. During times of volatility and unpredictability, a seamless supply is systemically important to our customers, who rely upon us to keep their operations running. The Board has therefore decided to maintain higher levels of working capital to ensure continuity of supply. A similar approach has been taken to ensuring energy security for our operations in Europe during the winter of 2022-2023. Our revenues are dependent on the production volumes of our customers rather than commodity prices, and that is why we are able to achieve consistently resilient margins compared to our customers who experience more margin volatility.

The Group achieved an Adjusted EBITA of €384 million, 37% higher than 2021. Similarly, I am pleased to report revenue increased by 30% to cover an increase in cost of production of 30%. Given the management and employees, tireless efforts to implement price increases throughout the year, to cover the cost of inflation, we were able to achieve EBITA margins on a reported basis of 11.6% (2021: 11.0%) with thanks to currency tailwinds too.

Strategy

RHI Magnesita is a global refractories leader with a growth strategy based on increasing our market share in geographies and products where we are currently underrepresented, both organically and through acquisition, expanding our business model through pioneering R&D and technology leadership and maintaining highly cost-competitive production. We continue to take pride in our leadership position in sustainability. Positioning the Group's products and services ahead of sustainability-driven technological change in our customer industries will be essential for long-term success. Meanwhile, we are also working hard to improve the sustainability profile of our own business.

Sustainability advances

I am pleased to report excellent progress in increasing the rate of use of secondary raw materials in the refractory production process. The 2025 target of a 10% recycling rate was achieved three years early, following considerable internal focus and the completion of our recycling joint venture with Horn & Co Minerals Recovery GmbH & Co KG ("Horn & Co") in May 2022. This outperformance has enabled us to make progress against our overall 2025 CO_2 efficiency goal, offsetting delays elsewhere due to uncertainty over fuel switches to natural gas, which are on hold due to current conditions in energy markets. Our recycling plans started primarily as a sustainability-driven initiative. We are now able to add to our raw material business by offering these recycled raw materials to the whole of the industry.

Board changes

As announced in October 2022, Fiona Paulus left the Board following a three-year tenure. I would like to thank Fiona for her valuable contribution, commitment and service during her time with the Company and wish her the all the best for the future. Sigalia Heifetz has communicated her intention to step down at the next AGM in 2023 and we are now looking for a replacement for both of these Independent Non-Executive Directors (NEDs).

We are committed to pursuing diversity on our Board, including diversity of thought, skill, and experience, as well as gender, background, and ethnicity. Female representation on our Board for the majority of 2022 was 38% until Fiona's resignation. In recruiting for new NEDs, we will ensure this level is maintained in the near term. In the longer term, we have aspirations for 45% gender diversity at the Board level, as stipulated in the Board Diversity Policy.

Further details on the composition and functioning of the Board can be found **Pages 102 to 157**

Board effectiveness

Each year we carry out a review of Board effectiveness to assess our performance and make appropriate improvements. This exercise is a priority for me personally and the Board has recently undertaken its review of 2022. The detailed findings are currently being considered by the Board and will be reported on at the next opportunity. Our progress in previously identified action areas is contained in the Corporate Governance section of this Annual Report.

Dividend

The Board has recommended a final dividend of €1.10 per share in respect of the financial year to 31 December 2022, bringing the total dividend for the year to €1.60 per share. This level of dividend is broadly aligned with our policy to maintain dividend cover of below three times adjusted earnings whilst taking into account the other funding requirements of the business as we manage capital expenditures, M&A spend and gearing levels through this important period in our strategic development.

Summary

The Board remains fully supportive of the core pillars of the Group's strategy, and it is reassuring to see that there has been continued success in advancing them despite challenging conditions. Highlights this year have included progress in the Group's strategic initiatives including the significant completion of the Production Optimisation Plan and progress in M&A. The Group has also improved its presence in high priority product segments such as flow control and in the geographical regions of India, Türkiye and China, which present areas of growth opportunity for the business.

On behalf of the Board, I would like to thank our shareholders, employees and customers for their continued support, and I look forward to reporting on further successes in the coming year.

CEO review

RHI Magnesita is a resilient business with a proven track record of profitability through economic cycles. This year we have maintained margins and gained market share.

Stefan Borgas
Chief Executive Officer (CEO)

RHI Magnesita is a resilient business with a proven track record of profitability throughout economic cycles. This year we have maintained margins and gained market share, in large part through the prioritisation of local product availability, against a backdrop of unprecedented inflation in our key input costs. Given the highly volatile supply chain environment in 2022, we prioritised security of supply for customers by maintaining elevated levels of inventory. As supply chains started to normalise towards the end of the year, we were able to release some of this inventory, reducing our average finished goods coverage ratio to 1.8 months against our target of 1.9 months. Refractories are essential for our customers to operate and I am pleased that we were able to respond to changing market dynamics during the year in a way that enhanced our value proposition and market position.

We have also been focused on extending our sustainability leadership within the refractory industry, both as a partner for our customers through the continued industrial transition to a low-carbon economy and through the work we are doing to reduce our own CO_2 emissions.

Health & Safety

The health and safety of our employees in the workplace is our first priority. I am pleased to report that the Group's lost time injury frequency rate remained well below our target of 0.50 per 200,000 hours, at 0.20 (2021: 0.19). We attained ISO 45001 certifications at three further plants and work is ongoing to roll this out further across the network.

Operational and financial performance

The Group delivered adjusted EBITA of €384 million in 2022, an outperformance against analyst consensus expectations for the year, and an EBITA margin of 11.6%. Reported 2022 revenues of €3.3 billion compares to analyst consensus forecast at the start of 2022 for revenues of €2.6 billion, an increase of €700 million in the revenue with no change to sales volumes. Refractories are a small part of our customers' cost base at between 1% and 3% of operating costs, but they are essential for all high temperature production processes. The non-discretionary nature of our products combined with our low costs of production are the driving factors behind our long-term track record of profitability, throughout numerous downturns and challenging periods.

Scan here or click **here** watch our CEO's speech on RHIM fifth anniversary following the merger of RHI and Magnesita in 2017.

Gearing, measured as the ratio of Net Debt to EBITDA, reduced to 2.3x at the year end from 2.7x at 30 June 2022, slightly better than guided in November 2022 due to a stronger than forecast EBITDA performance in Q4.

Inventory monthly demand coverage ratios have gradually reduced to target levels as supply chains normalise, balancing the need to keep plants running at a high enough capacity utilisation to avoid loss of margin due to a lower fixed cost absorption.

Prioritising high levels of local product availability meant that we were able to seamlessly supply our customers, leading directly to market share gains. As a result, RHIM's overall steel volumes outperformed the wider market in contracting by only 1% compared to steel production globally (World Steel Association), which recorded a 4% contraction, or 7% excluding China.

A key risk to our operations during the year was energy security in Europe. This region is an important source of specialist products that are shipped globally to other regions as well as supplying our European customers. I am proud that we moved quickly in Q1 2022, as we saw the crisis emerging, and we were prudent in our approach to commit €7 million of capital investments towards installing alternative fuel infrastructure to reduce our reliance on natural gas. This is just one example of how we effectively responded to high levels of supply chain volatility this year.

Strategic delivery

Two key pillars of our long-term strategy are to increase our competitive position by investing in the rationalisation and modernisation of our production footprint and to grow in new markets through consolidation. I am pleased to report that we have demonstrated good progress in both areas in 2022.

We have transformed our production network through major investments in our refractory plants and raw material assets. We have achieved economies of scale through various initiatives including plant expansions and a higher degree of automation and digitalisation. The cost-saving benefits of our Production Optimisation Plan, together with substantial price increases to reflect higher input costs, have enabled us to maintain margins even though costs increased by 30% in 2022. Whilst these efficiency gains are currently being offset by higher production and distribution costs, they will enable us to sustainably grow margins in the longer term.

M&A progress

During 2022 we completed the acquisitions of Söğüt Refrakter Malzemeleri Anonim Şirketi ("SÖRMAŞ") in Türkiye for €46 million and entered into a recycling joint venture with Horn & Co Minerals Recovery GmbH & Co KG ("Horn & Co") in Germany for €13 million in exchange for a 51% ownership stake and we have since formed the new entity Horn & Co RHIM Minerals Recovery GmbH ("MIRECO"). We also progressed construction of a new non-basic shaped refractory plant in Chongqing, China, together with our joint venture partner Liangyou following our acquisition of the existing mixed operations there in Q4 2021. The new plant is on track to start production in H2 2023.

During January 2023, we completed two important strategic acquisitions in India, including the €78 million acquisition of the refractory business of Hi-Tech Chemicals Limited ("Hi-Tech") in Jamshedpur, Jharkhand. Hi-Tech is a specialised flow control refractory business and will thus strengthen and enlarge RHI Magnesita's position in the domestic and international flow control markets. Secondly, we acquired the Indian refractory business of Dalmia Bharat Refractories Limited ("DBRL"), in exchange for 27 million shares in RHI Magnesita India Limited, the Group's 70% owned locally listed subsidiary (reduced to 60% post completion).

With the production footprint and the product offering being highly complementary, the DBRL acquisition will greatly benefit our position within the industrials sector, especially in cement. At the same time, we will be able to increasingly serve customers with a 'local for local' approach and supply them with the broadest range of products and services, more so than any other player in the region.

These transactions strengthen our market position within the fast-growing Indian market, with steel production growth in India of 6% in 2022 and a 7-8% CAGR forecast until 2030. We were able to utilise highly valued equity in our listed Indian subsidiary to fund this acquisition, reducing the impact of the transaction on the Group's balance sheet.

In January 2023, we agreed to acquire a 65% shareholding in Jinan New Emei Industries Co. Ltd. ("Jinan New Emei"), for €40 million. Jinan New Emei, based in Shandong, China, is a well-established producer for refractory slide gates, nozzles and mixes. This acquisition will further strengthen our presence in both China and in Flow Control.

Taken together, these acquisitions are expected to contribute between €25-30 million of incremental EBITDA in 2023, with further upside from synergies of between 30% and 50% of target EBITDA to be delivered over the next two to three years.

Given the substantial completion of the Production Optimisation Plan, we have built a strong platform from which to embark on the next stage of our strategy, which is to accelerate inorganic growth in geographies and product segments where we continue to be under-represented.

Our people

The strategic progress and financial performance we have delivered this year is founded on the dedication and professionalism of our employees. I would like to highlight the contribution of our operations, sales, procurement and special project teams who have worked tirelessly to navigate volatile and unpredictable markets whilst achieving production targets and making necessary upgrades to our planning and logistics processes. A special mention must also go to our M&A and technical teams for whom the transactions agreed and completed in 2022 represent multiple years of sourcing, engagement, diligence and negotiations with target companies. We now look to the experience and knowledge of our integration teams to realise the benefits of these new additions to the Group as quickly as possible.

Our markets and outlook

Volatility and uncertainty are expected to persist across all markets except India in 2023. The subdued volumes in Q4 2022 are expected to continue into H1 2023, as a contraction in construction activity will affect steel, cement and lime, non-ferrous metals and glass demand globally. However, demand softness will be offset by continued strong growth in India and the Group will also benefit from additional earnings from new acquisitions and cost savings from its strategic initiatives.

The Group's outlook for revenue, EBITDA and EBITA in 2023 is broadly in line with current analyst consensus, with up to a 5% reduction in sales volumes and lower refractory pricing expected to lead to lower revenues, before contribution from new acquisitions. Costs are expected to remain flat or increase as higher energy and labour costs offset lower sea freight and purchased raw materials, resulting in a Group EBITA margin of around 10% in 2023 (2022: 11.6%).

Gearing levels may increase from the 2.3x recorded on 31 December 2022 due to €200 million of cash outflow from M&A (DBRL, Hi-Tech and Jinan New Emei) and lower profitability in 2023 caused by lower demand.

New product revenue

19%

2021: 16%

EBITA contribution from strategic initiatives in 2022

€24m

2021: €49m

Return on invested capital

11.6%

2021: €9.6%

Our strategic framework

RHI Magnesita's strategy is based on three pillars, supported by our people and culture. Each strategic pillar represents an opportunity to deliver significant long-term value for shareholders, building on the Group's existing global footprint and underpinned by our people and our focus on a sustainable future.

Read more on our strategic framework
Page 16

Our strategic framework

RHI Magnesita's main three strategic pillars are as follows:

- To improve cost competitiveness in executing cost efficiency programmes such as the network optimisation and the saving associated with gains of scale in SG&A and procurement.
- To grow revenues and margins by expanding the business model in markets that we have strong presence.
- To drive market leadership through M&A, increasing market share in new geographies or product areas where the Group is currently under-represented.

The three pillars of our strategy are underpinned by a focus on people, corporate culture and our commitment to sustainability.

Each strategic pillar represents an opportunity to deliver significant long-term value for shareholders by expanding profit (i.e. EBITA) margins through self-help or consolidation, as well as by future-proofing the business through investment in innovation, thus enhancing the Group's sustainability profile and developing a talented team.

The Group's long-term strategy is aligned to its purpose of mastering heat to enable industries to build sustainable, modern life. The Board reviews the strategy on an annual basis, which incorporates any deviations from the longer term strategy in order to dynamically respond to market conditions and stakeholder interests. The Board believes that the Group's strategy remains feasible and strategically well positioned in the longer term for the future of its customer industries, adapted to cleaner production routes and technologies. How the business interacts with its stakeholders is fundamental to its long term and sustainable value. More information on stakeholder engagement can be found on **page 106**.

Our strategic priorities

Competitiveness

Reduce operating costs

The Group's cost-saving initiatives are aimed at consolidating, automating and reducing the plant network footprint, in order to further increase competitiveness against a more volatile market backdrop.

Business model

Expand the business model

The Group is committed to leading the refractory industry through pioneering R&D and technology leadership to expand its product offering. This includes RHI Magnesita's solutions model and its market-leading sustainable product offering.

Markets

Grow market share in geographies and products where we are under-represented

Already an industry leader, the Group aims to grow its share of the global high temperature refractories market worth €20 billion, via a consolidation strategy targeting businesses in high growth markets or market segments where the Group is currently under-represented.

People and culture

Enablers of our strategy

A culture that celebrates innovation, openness, pragmatism and performance is central to the success of our strategy. Hiring and retaining leading talent is essential for the Group to grow and maintain its leadership position.

Sustainability

Sustainability leadership

To be the leaders of the future refractory industry, the Group must continue to adapt and evolve in order to serve and supply its customers in the most sustainable way possible. Sustainability is integral to achieving its strategic priorities.

Progress	Outlook	
The Production Optimisation Plan, launched in 2019, is now largely complete apart from the Brazilian projects. At Contagem, Brazil, the project has been temporarily suspended due to unfavourable economic conditions, as well as ongoing delays at Brumado, Brazil. The cost-saving initiatives delivered EBITA benefit of €76 million in 2022 versus 2019. Maintaining low-cost raw material production has become increasingly challenging due to higher energy prices and reduced energy availability, impacting the EBITA margin contribution from vertical integration.	The Group targets to deliver €85 million of annualised EBITA run rate savings by 2023 against the 2019 cost base through the reduction of cost of goods sold, including through automation and robotics. The Group will further increase its competitiveness through the implementation of further Selling General and Administrative (SG&A) reduction measures against a rising inflationary environment, as well as decreasing its inventory levels in 2023. The Group's EBITA margin contribution from vertical integration is expected to reduce in 2023. It should revert to 2.5-3.5 percentage points (ppt) levels once supply chain issues normalise and production in Europe becomes more competitive.	Read about this strategic pillar **Pages 18 & 19**
In 2022, the Group achieved 32% of revenue from solutions contracts, against its target of 40% by 2025. It increased its sales of digital products, through its solutions contracts. Due to its strong market positions and customer relationships, RHI Magnesita was effective in passing rising costs onto its customers in 2022. Sales strategies delivered €32 million of cumulative EBITA in 2022.	The Group will continue to expand its solutions business model, including the sale of digital products and it will increase sales of standalone digital products. It will continue to provide industry-leading products with lower carbon footprints and supply into industries which are decarbonising their processes. The Group will achieve the lower range of its target €40-60 million by 2023 in revenue synergies through solutions, digital products, flow control and new markets.	Read about this strategic pillar **Pages 20 & 21**
In 2022, the Group acquired an 87% stake in SÖRMAŞ in Türkiye and a 51% stake in Horn & Co. Minerals Recovery GmbH & Co KG (forming "MIRECO"). The Group has announced two further acquisitions in India (DBRL and Hi-Tech), and another in China (Jinan New Emei). The Group delivered 15.8% of revenue from Flow Control in 2022. Furthermore, the roll out of a regionalisation structure enhancing the Group's 'local-for-local' approach further strengthened its position in its core and newer markets.	The Group will ramp up and scale Chongqing in China and further scale SÖRMAŞ in Türkiye. The Group will progress its integration of Hi-Tech, DBRL and Jinan New Emei in 2023. Following successful trials in flow control in 2022, the Group plans to increase production in 2023 for new deliveries. The Group's flow control position in India is expected to be considerably strengthened in 2023 through the acquisition of Hi-Tech refractories, which features an isostatic product line. The Group continues to actively seek out further consolidation opportunities to expand its market share, while taking into consideration the opportunities and challenges of a more volatile market.	Read about this strategic pillar **Pages 22 & 23**
The decision to enhance the Group's local-for-local strategy through regionalisation of its operations has increased its agility and performance and empowered regional teams.	As well as training and development, the Group will continue to support its colleagues across the world as they face new and emerging challenges in a particularly volatile environment.	Read about this strategic pillar **Pages 24 & 25**
The Group increased the proportion of revenue derived from the use of recycled products to 10.5 %, achieving its 2025 target three years early. This was accomplished primarily through increased internal focus and helped by its joint venture, MIRECO. Increasing the Group's recycling capabilities not only increased its sustainable product offering, but also has had a benefit in the context of increased raw material availability.	The Group will continue to grow its sustainable product offering through recycling and remains committed to its 2025 sustainability goals.	Read more on sustainability **Page 58**

Strategic progress in action

Competitiveness

Execute cost reductions

RHI Magnesita is a cost-competitive global producer of technologically advanced refractory materials. Through its strategic initiatives, it achieves competitive cost of goods sold (COGS) delivered at its customers' sites, creating sustainable shareholder value.

New product revenue

19%

2021: 16%

Expansionary capex

€79m

2021: € 177m

Inventory coverage ratio

1.8x

2021: 2.5x

Refractory production and raw material optimisation

The Group launched a global strategic initiative in 2019 to reduce its conversion costs. It achieved this through the consolidation of its production plant network, as well as transferring production from higher-cost to lower-cost locations. It upgraded certain plants through digitalisation and automation to create centres of excellence. It also focused on enhancing its localised production network by reducing supply chains and moving production capacity closer to raw material sites. The completion of the programme will support the Group in reaching our target of mid-teen EBITA margin over the medium term.

Once complete, the programme will improve the Group's cost position and delivery capabilities through the lower cost of goods sold and the shorter supply chain between raw materials hubs and production facilities. Return on invested capital in 2022 was 11.6%, as the plants started ramping up production and with higher profitability in 2022. This programme of work has been a significant part of the Group's capital allocation strategy since 2019, which incorporated organic investment as one of its core priorities, with c.€400 million of organic capital expenditure invested since 2019 (project inception).

The Group created a European dolomite hub in Hochfilzen, Austria, to consolidate its European dolomite raw material production in a single low-cost site. This hub will supply a new portfolio of internally sourced dolomite raw materials, following the decision to exit our partnership in a joint venture with L'Hoist. In 2022, the Group celebrated the opening of its new 'Dolomite Resource Centre Europe' at Hochfilzen, which is the most modern dolomite plant across the continent. The Group invested a total of €45 million into the project, with a payback period of six years. To minimise the environmental impact of the project, a conveyor belt in the newly built Schipfl tunnel is used to transport around 200,000 tonnes of dolomite annually from the mine to the rotary kiln, avoiding the requirement for truck transportation. The newly built rotary kiln is fired to around 2,000 °C and is able to produce around 100,000 tonnes of dolomite sinter per year. The Group's focus on strong vertical integration, centred around sustainability, is demonstrated through its newly opened rail container loading terminal at Hochfilzen. It is possible to deliver the dolomite sinter to its dedicated sister production plants in France by rail in a more environmentally friendly way, avoiding road transport. RHIM's Valenciennes and Flaumont plants in France now produce dolomite finished products, using internally sourced raw material from Hochfilzen.

The Group announced it would be continuing its operations in Mainzlar, Germany, following a previously planned closure as part of the Production Optimisation Plan. The increasing demand for bricks in the glass industry and the excellent performance of the plant were the crucial elements for the reversal of the decision. With the plant staying open, an old rail line to the plant has been reopened with strong support by local authorities and related funding to allow incoming raw materials and finished products to customers nearby to be transported in a more environmentally friendly way, replacing the need for trucks and lorries in the local area.

RHI Magnesita's plant in Radenthein, Austria, is its digital flagship plant and the most modern refractory plant globally. Its leading automated processes include self-driving heavy load vehicles and a range of robotics. The plant is now 80% automated, which has significantly lowered production costs as well as improving health and safety. In 2022, the plant completed its capacity expansion for magnesia-based finished products. It has partly implemented the MES (Manufacturing Execution System), upgrading it to a 'Smart Factory', which features computerised systems, installed to track and document the manufacturing process via a central control room.

In Brazil, the Group's projects at the Brumado raw material site, and Contagem, the Group's refractories production site, have been impacted by supply-chain related delays, cost inflation, COVID-19 related contractor availability and changes to key parameters such as foreign exchange rates and freight costs, all of which impacted the original project design. The first phase of the Contagem project was completed in 2021. It included the installation of two new hydraulic presses to increase production efficiency and capacity. However, the second phase of the project, to complete crushing and mixing lines, has been temporarily suspended to allow for the operations teams to focus on improving operational delivery against unfavourable economic parameters.

The resilient margins we achieved in 2022 could not have been achieved without the efficiencies we have gained from the Production Optimisation Plan and our effective supply chain management.

Rajah Jayendran
Chief Technology Officer (CTO)

The primary focus in the region is to complete the Brumado upgrade as soon as possible. It is the Group's largest magnesite raw material asset, and the Group commissioned a project in 2019 to replace eight shaft kilns with one rotary kiln. The new rotary kiln has been under construction in 2022 and it is expected to be fully operational by the end of 2023. The project will deliver a significant increase in capacity of dead-burned magnesia. This will yield a higher quality and higher value product range, at a lower production cost and will result in a significant increase in the life of the mine, due to the ability to process a broader range of lower grade material including the tailings, previously classified as waste.

In 2022, the Group spent €79 million on expansionary capital expenditure, which was lower than the initial guidance (€110 million), due to the temporary suspension of the second phase of the Contagem project and delays to the Alumina plant construction at Chongqing, China and tunnel kiln at Brumado, Brazil. However, €20 million of the 2022 expansionary capital expenditure will now be allocated to 2023.

The programme of work has already shown material benefits in lower production costs across the plant network, although some of these benefits have been masked through higher input costs, such as energy and labour, during 2022.

Total savings to be derived from the cost optimisation plan are now expected to be in the region of €85 million compared with the previously guided figure of €110 million due to the temporary suspension of the second stage of the Contagem plant upgrade in Brazil and the decision not to close the Mainzlar plant in Germany. The full benefits of the strategic cost savings are now expected to be realised from the start of 2024.

Resilience

The Group has a natural resilience in volatile markets, due to its low-cost assets and vertical integration. Its resilience is further strengthened by its geographic reach and market diversity. It also benefits from consistent demand from customers, for whom the supply of refractory products is absolutely essential to business continuity.

In 2022 globally, cost volatility increased materially due to supply chain disruption, energy shortages, political trade barriers, and labour shortages. Despite these challenges, the Group achieved a resilient operating margin of 11.6%.

This performance was supported by benefits already realised from the Group's Production Optimisation Plan, as well as initiatives taken specifically to address the new challenges.

To ensure continuity of supply to its customers, the Group started 2022 with elevated inventory levels and reduced these during the course of the year. The Group reduced inventory of both finished goods and raw materials, by 182 kilotonnes, or by 23%, and was able to reduce inventory coverage ratio from 2.5x months at year-end 2021 to 1.8x months at year-end 2022.

Due to the strength of its customer engagements and its ability to maintain a reliable service in this environment, the Group was able to pass some inflationary costs through to customers whilst retaining market share. Customer contracts were adapted region by region to reflect extraordinary input costs, such as higher energy costs in European contracts and higher logistical costs in North America.

Since March 2022, the Group has also taken measures to diversify its energy sources and reduce its dependence on natural gas whilst it remains in short supply globally, and specifically in Europe.

In 2023, to maintain its resilient EBITA margins, the Group will be taking steps to reduce its SG&A costs. In 2022, the Group achieved SG&A costs of 11.3% of revenues (2021: 11.6%).

Vertical integration advantage

The Group continues to benefit from its vertical integration in basic raw materials, and in 2022 the total EBITA contribution from its raw material assets was 2.5%. The EBITA margin contribution in 2022 was lower than 2021 (3.4%), given the increased production costs at the raw material sites, which are very energy intensive. The Group expects a lower raw material margin in 2023 however it should revert to 2.5-3.5 percentage points (ppt) levels once supply chain issues normalise and production in Europe becomes more competitive.

The effect of higher global energy costs has temporarily disconnected the vertical integration margin from raw material prices. Our raw material assets are largely outside of China and have been subjected to supernormal energy prices, especially natural gas, after supply shocks to global energy industries following the Russia/Ukraine conflict. The raw material conversion process is very energy intensive and contributes materially to the Group cost of the production of raw material. China is the biggest magnesia producer globally, with more than 70% of the world's supply. However, a weaker economic backdrop in China led to softer Chinese raw material prices given reduced demand, coupled with higher energy availability in China compared to the western world. Therefore, Chinese raw material prices had significant competitive advantages compared to European producers.

The Group's vertical integration is vital to its competitiveness, with c.70% of the Group's total magnesite and dolomite consumption from its own internally sourced raw material, and c.50% of its total raw material by value. The Group strategically benefits from its certainty of supply and high-quality raw material.

The strategic positioning of its production sites, close to its raw material assets, underpins the Group's "local-for-local" strategy. These raw material assets, which in some cases provide unique products for specific applications in the market with a bespoke blend of recipes, ensure that it is unrivalled by its competitors given its portfolio of basic raw material sinters.

Strategic progress in action

Business model

Expand the business model

Strategic organic growth to future proof the business through pioneering R&D and new emerging technologies. We adapt as our customer industries decarbonise.

Sales strategies EBITA run rate savings by 2023

€40-60m

Revenue from solutions contracts

32%

29% in 2021

R&D and technical marketing

€77m

2021: €63m

Digitalisation at our customer sites

Digital disruption is a key megatrend in both the refractory industry and the Group's customer industries. RHI Magnesita's solutions contracts for customers are augmented by digitalisation. It offers a digital portfolio to assist customers with maintenance through controlled downtime (for example, Lining Evaluation Scan and Automated Process Optimisation tools). Further support is provided to customers by improving the steel making process through thermo-chemical modelling of slags, which can recommend flux additions to optimise the slag composition, and ultimately the overall production process quality by using the Ladle Slag Model ("LSM").

The Lining Evaluation Scan ("LES") was developed by RHI Magnesita in 2021 to quickly determine the remaining thickness of the lining in cement rotary kilns by means of a 3D laser scanner. The measurement provides area-wide precise information about the condition of the lining and replaces time-consuming and incomplete conventional methods. Together with digital documentation, virtual kiln inspections can be carried out at any time all over the world. LES enables RHI Magnesita's customers to take fast and fact-based decisions, and contributes to improving the kiln performance. Within the last year, RHI Magnesita has invested in scanning equipment, people, and a digital platform to further extend the service in Europe, as well as North and South America. As the feedback from users of this service was outstanding, RHI Magnesita will continue investing in the scale-up, so more customers around the world can be offered this service.

Scan the QR code to watch the Lining Evaluation Scan or click **here**.

Digital transformation in operations

In 2022, RHI Magnesita completed the implementation of 'SMART' maintenance in some of its plants, and this is expected to be rolled out to all plants in 2023. SMART maintenance is a concept whereby maintenance can be fully automated and centralised into a global system. In this way, workflows and key performance indicators (KPIs) for maintenance can be fully standardised across the plant network, decreasing human error and increasing efficiency through reduced downtime.

Scan the QR code to watch RHI Magnesita: SMART maintenance or click **here**.

Innovation and R&D

This year, RHI Magnesita built a 15-year technology roadmap that will help our industry meet future challenges. This addresses nine areas: recycling and use of waste materials, digitalisation, hydrogen compatibility, new refractory solutions, pioneering production routes, carbon capture, usage and storage, new flow control solutions and future mining. The roadmap will enable RHI Magnesita to anticipate customers' future needs and build out the Group's capabilities ahead of time, ensuring that its technology strategy is future-proofed and that it stays ahead of competition.

The Group participated in the 'Verbund X Accelerator', which brought together leading companies with the common goal of developing solutions that contribute to a more sustainable future, with involvement in two promising projects focusing on carbon capture and on carbon and utilisation technology.

In a renewed partnership with OMV and voestalpine, RHI Magnesita is supporting the US start-up Compact Membrane Systems (CMS) with the idea of achieving a cost reduction for carbon capture in projects. RHI Magnesita, together with the Institute of Material Chemistry of the Vienna University of Technology, OMV and voestalpine, will work as a consortium towards developing a new catalyst for CO_2 recovery from exhaust gases, which often contain impurities such as sulphur compounds. These can then be retrieved and used in the creation of valuable substances such as methanol.

RHI Magnesita India inaugurated its new R&D facility in Bhiwadi, India. It will partner with the global R&D network for local raw material development, and will provide solutions support for customer performance and local manufacturing across India and Western Asia.

We are constantly innovating to find new ways of supporting our customers and being the partner of choice in the refractory industry.

Gustavo Franco
Chief Customer Officer (CCO)

Decarbonisation across industries

Decarbonisation of the steel industry is a megatrend which is expected to continue into 2050 and beyond. Emerging economies are expected to increase their capacity for EAF and electric smelter furnaces, as availability of scrap steel grows, and the pressure to reduce carbon emissions intensifies. RHI Magnesita is able to leverage this growing trend thanks to its vertically integrated model. The raw material required for an electric arc furnace uses iron-rich alpine sinter, a material sourced from RHI Magnesita's European raw material mines in Austria, Hochfilzen and Breitenau.

The AnkerHearth product series is used for the hearth of the EAF and the product has proven to be the clear market leader. The sinter features excellent specifications, as a naturally occurring iron-rich chemical composition which is very difficult to replicate through synthesisation. This contributes to RHI Magnesita's position as the leading refractory partner of choice in the green transition of the steel industry. The AnkerHearth is a high performance and high margin product series, which is less asset intensive than the equivalent material used for the basic oxygen furnace. It adds significantly higher refractory mix volumes with higher consumption per tonne of product by up to 75% compared with a basic oxygen furnace. However, it is a lower revenue product, by up to 60% lower price per tonne.

RHI Magnesita is also well-positioned in the decarbonisation of industries requiring non-ferrous metals such as copper, aluminium, nickel, lead and more. These non-ferrous metals will be needed in significantly higher quantities by 2050, as the world transitions to greener technologies for use in electric vehicles, solar panels and batteries. The Group has recently invested into automation of its non-ferrous metal plant, Radenthein, which is the Group's bespoke non-ferrous metals plant.

Decarbonising of our products

Recycling

RHI Magnesita announced in H1 2022 its partnership with Horn & Co. through a joint venture, to combine their recycling activities in Europe. This partnership will increase production, use and offering of secondary raw material, obtaining a substantial reduction of CO_2 emissions. The newly formed entity will operate as "MIRECO" (Horn & Co. RHIM Minerals Recovery GmbH).

The partnership positioned the Group at the forefront of the circular economy for customers in steel, cement, glass and other process industries. Thanks to the joint venture, RHI Magnesita was able to increase its proportion of secondary raw material to 10.5% in 2022, against 6.8% in 2021 and a marked improvement since 2018, 3.8%. This will significantly help to achieve the goal of 15% reduction in CO_2 emissions by 2025 against a 2018 baseline. Going forward, approximately 50,000 tonnes of used refractories per year will be processed for reuse with MIRECO. This not only saves large quantities of raw materials, but also results in c.90,000 tonnes fewer CO_2 emissions per year. Each tonne of recycled refractory achieves a CO_2 saving of 1.8 tonnes, which would have to be compensated by the equivalent of approximately 7.2 million trees.

MIRECO will be able to process c.150,000 tonnes of secondary raw material for the European refractory industry. This equates to c.270,000 tonnes of CO_2 saved.

MIRECO underpins this new strategic supply chain, which is sustainable and offers security of supply. Recycling means that the Group can cover supply needs through both primary and secondary raw materials. MIRECO provides services to cover the entire recycling value chain, including collection, cleaning, material sorting, processing, recycling and then reuse or disposal and it will operate from Mitterdorf, the RHI Magnesita recycling centre in Styria, Austria. Austrian Vice Chancellor, Werner Kogler, inaugurated the opening in April 2022. There are seven recycling plants throughout Europe and MIRECO serves over 100 customers in all European countries. In the future, MIRECO's recycling business will expand to more countries and to other refractory manufacturers.

MIRECO operates a 'CERO (Continuous Economic Recycling Optimisation) Waste' concept; a customised concept that uses a circular economy to enable the use of high-quality recycled raw materials and prevent expensive and environmentally harmful landfill as far as possible. It provides its customers with superior quality secondary raw material. These materials form the basis for a wide range of metallurgical purposes, including slag formation, slag fluxing, influencing the slag composition and thermal covering agents.

Thanks to pioneering R&D at RHI Magnesita, the Group developed a slag conditioner for an EAF in Graz, Austria, creating savings for the customer of one lining per year. The innovative approach uses the obsolete dolomite at the Flaumont plant in France, avoiding landfill waste and saving landfill costs.

In June 2022, funding approval was granted by the European Commission for RHI Magnesita. A consortium of eight partners across industry and research was formed, named ReSoURCE "Refractory Sorting Using Revolutionising Classification Equipment". ReSoURCE will innovate the full process chain of refractory recycling in order to create a new state of the art sorting process, aiming to achieve particle sizes of less than 1mm.

Transparency in our supply chain

We are committed to providing more transparency to our customers as they transition to more sustainable supply chains and increasingly factor in environmentally friendly procurement decisions. We launched a data sheet which shows the CO_2 footprint of our entire product portfolio, across approximately 200,000 unique products. Information made available to our customers will allow them to compare products across RHI Magnesita and make informed decisions around their carbon footprint in their supply chain, as industries are increasingly pressured to disclose the carbon footprint outside of their own emissions. All "cradle-to-gate" greenhouse gases (GHG), from raw material extraction to production and packaging, are considered in these CO_2 footprint calculations, and are externally certified according to ISO standards. The product carbon footprint[1] includes all Scope 1 and Scope 2 emissions, as well as part of the Scope 3 emissions.

Scan the QR code or click **here** to watch a video on our CO_2 footprint data sheet.

1. The Scope 1 emissions are direct emissions from RHI Magnesita plants, while the Scope 2 emissions are indirect emissions from the electricity (a high number of plants already use 100% green electricity or are using electricity with a very low CO_2 footprint). The largest share of the Scope 3 emissions (all other indirect emissions) are coming from the external purchased raw materials.

Drive market leadership

The long-term outlook remains stable with pockets of growth, supported by our ambitions to penetrate new markets.

Revenue from India and China in 2022

17.1%

2021: 17.9%

Flow control revenue

€525m

2021: €433 million

EBITDA contribution from M&A in 2023

€25–30m

RHI Magnesita has built a platform which is primed for consolidation, following the near completion of the Production Optimisation Plan. The Group was founded almost 200 years ago and has since consolidated the market to become the global leader of the refractory industry, represented by its c.130 subsidiaries. The Group announced new acquisitions in India in 2022, which will extend its footprint in growth markets, as well as partnering with Horn & Co. through the creation of a joint venture. It also completed an acquisition in Türkiye in 2022 and announced an acquisition in China in January 2023. Acquisitions either completed or announced in 2022 are expected to generate an EBITDA run rate of €25-30 million, in each case we expect for each target to achieve 30 - 50% of EBITDA synergies once fully integrated. The Group is specifically targeting growth in new markets or product segments such as India and China, as well as the non-basic (Alumina) product segment. India, in particular, is a steel growth driver of the Group, as well as the emerging territories across Asia, and these are expected to outweigh softness in other geographies such as Europe. Despite projections that China has already reached its highest growth rate, this region remains a target geography for the Group, given it is currently underrepresented, coupled with expectations that the market will start to consolidate.

Achieving growth through acquisitions in new markets

In 2022, the Group began to integrate the Alumina mixes plant in Chongqing, China, in which it owns a 51% share, to serve the Chinese cement industry. This venture will significantly increase its local-for-local strategy. It will expand production capacities and capabilities in China with shorter lead times and is strategically located near road infrastructure connecting China to Vietnam and the ASEAN region. The Group will, together with its partner Liangyou, build a state-of-the-art Alumina fired bricks plant, which has a capacity of 25,000 - 50,000 tonnes per annum and is leading Chinese refractory production in terms of reduced carbon emissions and lower energy consumption.

In May 2022, the Group acquired a 51% stake in Horn & Co. Minerals Recovery GmbH & Co KG, combining both companies, recycling activities in Europe to increase production, use and offering of secondary raw material for the European refractory industry. The joint venture will operate under a newly formed entity, MIRECO (Horn & Co. RHIM Minerals Recovery GmbH). This partnership will position the future company at the forefront of the circular economy for customers in the steel, cement, glass and other process industries. As a result, RHI Magnesita achieved a recycling target of 10.5% in 2022, three years ahead of schedule.

Read more about MIRECO on **Page 21**

In September of this year, the Group completed its acquisition of an 87% stake in SÖRMAŞ, a producer of refractories for the cement, steel, glass and other industries in Türkiye. The acquisition significantly expands the Group's locally manufactured product portfolio and serves as a production hub and platform for business growth in Türkiye and the wider region. Raw materials produced by Eskişehir, Türkiye, were previously transported outside of Türkiye for production in Europe. The acquisition of SÖRMAŞ localises the refractory production process, reducing the need for transportation into Europe and import duties. Given the localised supply chain, the Group will almost double the volume of refractory production compared to production from the SÖRMAŞ asset alone, given a shift to domestic production for Turkish customers.

The Group completed the acquisition of the Indian refractory business, Dalmia Bharat Refractories Limited ("DBRL") on 5 January 2023, which currently has a capacity of around 300 kilo tonnes per annum (with opportunity to leverage spare capacity). The acquisition will enable the Group to increase its presence in the high-growth Indian refractory market, where steel production in India grew by 12% in 2022 and is expected to grow at 7-8% CAGR until 2030. The production footprint (five plants including a 51% joint venture) and product offering of DBRL is highly complementary to the Group's existing plant locations (four plants) and product range with a focus in the industrial segment, where RHI Magnesita is currently under-represented. Significant network benefits and margin improvement potential have been identified through the addition of production capacity in important industrial locations in the south and west of India, where the Group currently has no assets.

We strengthened our position in new markets considerably in 2022 and we continue to evaluate new and exciting opportunities in target products segments and geographies in 2023 and beyond.

Stefan Borgas
Chief Executive Officer

In January 2023, the Group, through its listed subsidiary RHI Magnesita India Limited, completed the acquisition of the refractory business of Hi-Tech Chemicals Limited ("Hi-Tech"). The acquisition will further strengthen the Group's position in the high-growth market of India, the wider region and export countries, as well as its target growth market, flow control.

The Group announced in January 2023 its intention to purchase a 65% shareholding in Jinan New Emei Industries Co. Ltd. ("Jinan New Emei"), a leading producer of refractory slide gate plates and systems, nozzles and mixes for use in steel flow control. The acquisition will enable the Group to expand its product range in steel flow control refractories and its solutions contract offering in the Chinese domestic market, both of which are key strategic priorities. It will also give access to substantial new customer relationships in China and deliver additional production capacity for increasing supply of refractories in both China and the wider East Asia region.

Strength in core markets

The Group's core markets are Western Europe and the Americas, where it holds a clear leading position in both steel and industrials markets. The Group retains its leading position through the strength of its relationships with its customers, and through its unrivalled solutions products offering. These include its suite of digital tools and products, which are used to drive customer insights. Out of its c.15% global market share in a c.€20 billion market, it holds a significant share in South America steel. Market share in North and Central America are high, thanks to the high proportion of solutions contracts in the Americas. Both North America and South America steel are expected to grow modestly over the long term. European steel market share, including Türkiye and excluding Commonwealth of Independent States ("CIS") increased modestly in 2022, where the Group has maintained its competitive offering following the Production Optimisation Plan, and through its industry-leading assets such as the Dolomite Research Centre and the most automated refractory plant in the world, at Radenthein. Currently, European steel production is expected to remain subdued over the long term, which may be partly influenced by European legislation on decarbonisation, ongoing inflation and energy availability.

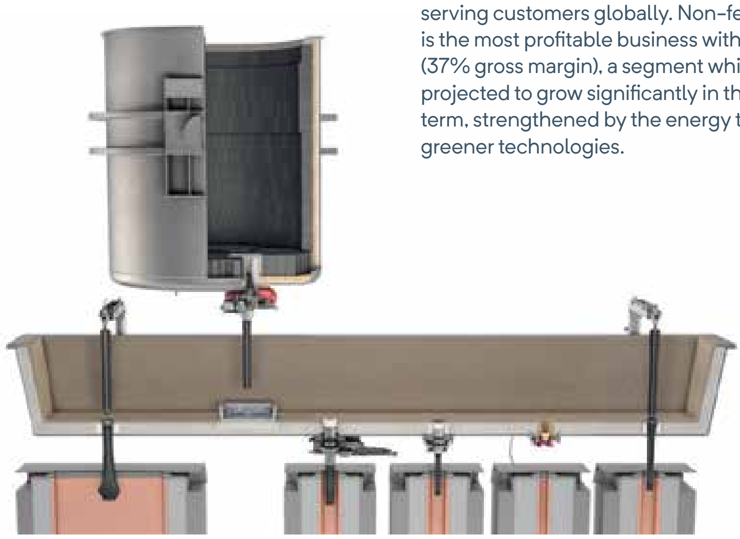
The Group will continue to prioritise profitability in these regions, thereby remaining competitive and retaining high market penetration. Strengthening its relationships with customers through industry-leading R&D, the Group continues to partner with its existing customers to improve its product offerings with bespoke and tailored solutions.

The Group has a high share of the cement market globally. RHI Magnesita consistently delivers high-quality product for cement; it has the global production capability to serve this €2 billion industry and is vertically integrated in magnesite, which is the main raw material used for refractory linings in cement kilns.

Flow control

Flow control systems play a crucial role on the continuous casting floor, as they ensure an uninterrupted and highly precise flow regulation from the ladle to the tundish and from the tundish to the mould. Our holistic approach in flow control comprises all relevant aspects of the flow control process from systems to refractories, to metallurgy.

Clean steel, safety, productivity and green steel underpin the main challenges that our customers face in steel production and flow control processes. In 2021 and 2022, we launched a campaign with our customers, which was designed to address and solve these common issues through our bespoke flow control solutions. Our innovative solutions ensure the highest possible safety standards, whilst delivering better metallurgical results for our customers, helping customers drive process efficiencies and reduce their carbon footprint.



Two new records were achieved this year for continuous casting times at a customer site in Bahrain and in Egypt. Using RHI Magnesita's INTERSTOP flow control brand, a total of 35.5 hours and a sequence length of 50 heats was achieved with the tundish slide gate system and an optimised submerged entry shroud in Egypt. A continuous casting time of 35.1 hours over 48 ladle heats was achieved with a submerged entry shroud in Bahrain.

Flow control contributed €525 million of revenue in 2022, up from €433 million in 2021. Flow control contributed 15.8% of Group revenues in 2022, slightly lower compared to 2021 (17.0%). Flow control pricing increased at a lower rate than refractory linings, especially in the tundish product segment. However, softer tundish pricing and profitability was offset by a strong performance in the isostatic product segment, thanks to the success of the flow control campaign rollout. The Group executed successful trials in 2022 and is preparing for a step-up in flow control orders in 2023.

Non-ferrous metals

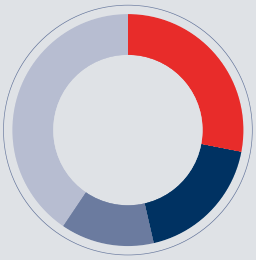
Non-ferrous metals include aluminium, copper, lead, tin, zinc, gold, silver and platinum. RHI Magnesita's Radenthein plant is the most automated plant in the world and is the Group's main production facility for non-ferrous metals, serving customers globally. Non-ferrous metals is the most profitable business within the Group (37% gross margin), a segment which is projected to grow significantly in the longer term, strengthened by the energy transition to greener technologies.

People and Culture

The driving force of our strategy

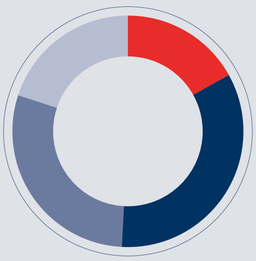
A talented workforce and a customer-centric culture are critical to the long-term success of RHI Magnesita.

Tenure



Below 3 years	28%
4-6 years	18%
7-9 years	13%
Over 10 years	40%

Age



Under 30	17%
30 to 40	34%
41 to 50	29%
Over 50	20%

Purpose and culture lie at the heart of the business model

RHI Magnesita fosters employee development, prioritises talent acquisition and retention, and understands the importance of creating the leaders of tomorrow in order to execute the strategy of today. Building a business with the right people who are primed for the future of the refractory industry is essential in this era of volatility. The Group is equipping its employees with the skills they need to help the business thrive in such an environment through the rollout of new tools and systems to drive efficiencies within the customer value chain and also in money-based processes.

Culture underpins employees' day-to-day decisions, enabling the business to prosper in a challenging environment. The culture is based on four segments, centred around the Group's customers. Bold innovation creates value for customers, by providing the best digital and sustainable solutions. An open mindset and transparent way of working is centred around a diverse and inclusive business environment. Acting pragmatically enables fast and simple collaboration across both functions and regions to serve customers in the best possible way. High performance is rooted in accountability and responsibility. RHI Magnesita is a reliable and resilient partner that decides and delivers based on its customers' needs.

Our culture is built upon our corporate purpose: mastery of heat, enabling global industries to build sustainable modern lives. Both culture and purpose are deeply embedded within the Company and its business model and form the philosophy through which it conducts daily operations.

Read more about our culture on **Page 72**

Future proofing our business

RHI Magnesita recognises the importance of building a pipeline of talent, which is why this year it launched a new apprentice campaign digitally in Austria, focused on finding the best talent for its Austrian plants. To target a 'Gen Z' audience, the latest campaigns were launched on various platforms: TikTok, Snapchat, Instagram, YouTube and more.

You can watch the video **here** or scan the QR code. (German language only).

Since creating a network of plants with higher automation and digitalisation, it is important to attract the next generation workforce of digital natives through our digital platforms. The digital campaign reached 2.6 million people in Austria to date and generated 16,400 clicks through our new apprentice homepage.

Scan the QR code or click **here** to access the website (German language only)

In January 2022, the Group also welcomed its next cohort of graduate trainees of the "Refractory Factory", including 21 trainees across 11 nationalities and with 57% female representation. The trainees completed rotational assignments over an 18 to 24 month period across Finance, Sales, R&D or Corporate functions. The trainee programme has been designed to bring young talent into the business, helping it to build a generational workforce.

In June 2022, RHI Magnesita officially opened its state-of-the-art flow control training facilities in Leoben, Austria. Located in the same building as the Cement and Lime Training Center, the full-scale ladle and tundish models equipped with an INTERSTOP branded ladle gate, tundish gate, nozzle changer, and purging plug solution provide a hands-on opportunity for customers to get a deep insight into flow control technologies, refractories, and maintenance. Furthermore, there is also the opportunity to gain extensive practical knowledge about isostatically pressed products. Over the last ten years, RHI Magnesita has developed a wide range of practical courses for customers and employees, which also include tundish training at the purpose-built facility in Veitsch, Austria and lining trainings.

Read more about how we develop our leaders on **Page 72**

The people and culture of RHI Magnesita is the foundation of our market-leading position. I am proud of the way we have executed and overcome the challenges of the year as well as excelling in so many opportunities.

Simone Oremovic
Executive VP People, Projects and Value Chain

Empowerment of our regional leaders

The launch of a regionalised structure allows every region to be fully accountable for the earnings and balance sheet of their regional business, improving RHI Magnesita's ability to execute its strategy and provide faster and better service levels to customers. Each regional business is led by a regional president, who is responsible for finance, sales, operations and R&D.

These changes will empower regional leaders and will enable them to make faster and higher quality decisions and utilise the expertise of the Group's employees worldwide. The change will move the business closer to customers and deliver better operational performance, achieved through a greater understanding for the local customer needs and cultures of each region. This is especially important against a much more volatile macro-backdrop globally.

Fostering diversity of thought

RHI Magnesita is committed to contributing to a better, more diverse, and inclusive workforce. Its goal is to make RHI Magnesita the employer of choice where everyone feels valued, engaged, and can enjoy a truly inclusive culture.

At RHI Magnesita, diversity has many different aspects including gender, religion, education, ethnicity, nationality, disability, sexual orientation and personality amongst others.

All of these contribute unique individual perspectives enrich the Organisation's innovative and creative thinking. Inclusion is the process of allowing diversity to thrive inside a company and the Group has measures in place to empower individuals in realising their full potential.

There is more work to do in encouraging females to occupy the most senior positions within the Company, which was 21% in 2022 (2021: 22%). Mandatory training on diversity was launched within our compliance portal in March 2022, to educate the workforce on the merits of diversity within an organisation, with a particular focus on innovation, problem solving and reaching or exceeding financial and strategic targets.

Read more about how we build a diverse and inclusive workforce on **Page 73**

Key performance indicators

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

The non-financial information, as presented within the Director's Report, which in this document, comprises the Strategic report and Governance section of this Annual Report, complies with the Dutch Disclosure of Non-Financial Information.

Read more on risk management
Page 39

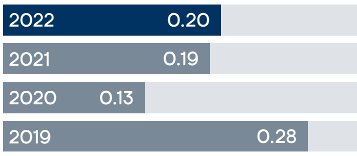
Link to strategy

Business model

Competitiveness

Markets

Safety: LTIF[1]



KPI relevance

Safety is paramount to the successful running of our business. Lost Time Injury Frequency ("LTIF") is the main indicator used to measure safety performance. The Group's goal is zero accidents.

How it is measured

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

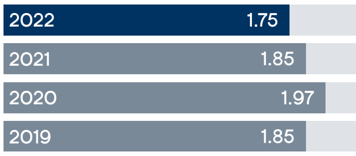
2022 performance

LTIF was 0.20 in 2022 (2021: 0.19), increased slightly due to high plant loads and staff returning to the workplace following the pandemic.

Total Recordable Injury Frequency (TRIF) decreased to 0.54 from 0.60 in 2021.

1. LTIF was restated in 2021 to 0.19 (from 0.18).

Relative CO_2 emissions[1, 2] (t CO_2/t)



KPI relevance

Climate change poses strategic and operational risks to our business, as well as opportunities. The Group's target is to reduce Scope 1, 2, 3 (raw materials) by 15% per tonne of product by 2025 (vs 2018).

How it is measured

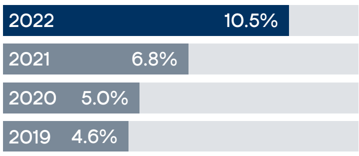
Tonnes of total Scope 1, 2, 3 (raw materials) carbon emissions per tonne of product. Scope 1 emissions consist of on-site emissions, Scope 2 comprise purchased electricity, and Scope 3 are measured from raw materials production.

2022 performance

Petroleum coke was replaced by sustainably sourced charcoal at the raw material production site in Brazil, and has delivered 18kt of annualised CO_2 emission savings.

1. Historical CO_2 emission data were revised to reflect new acquisitions and changes that were made following an external verification process that took place in July 2022.
2. Adaptations in line with the Greenhouse Gas protocol and refinement in reporting result in updated CO_2 and energy efficiency figures for 2018–2022.

Use of secondary raw materials



KPI relevance

Recycling plays a critical role in achieving our 2025 emissions reduction target while also developing the circularity of our business. Our target was to reach 10% secondary raw material (SRM) content in refractories by 2025, and this has been reached three years early.

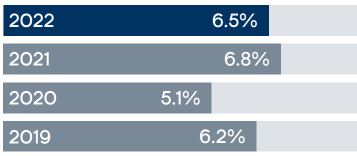
How it is measured

Share of SRM content as a percentage of total raw materials.

2022 performance

SRM increased considerably in 2022, thanks to increased focus internally, pioneering research and development and the joint venture with Horn & Co Minerals Recovery GmbH & Co KG to form MIRECO, which has considerably increased secondary raw material availability to the Group.

Voluntary employee turnover



KPI relevance

Voluntary turnover is one way of measuring the Group's success in retaining its employees.

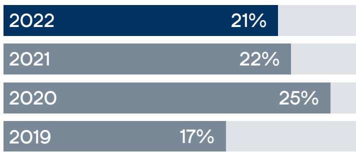
How it is measured

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

2022 performance

Voluntary turnover remained broadly unchanged in 2022, at 6.5% and in line with historic averages. The rate remains relatively low, associated with an uncertainty in the global economic environment.

Gender diversity in leadership



KPI relevance

Diversity is important in terms of maintaining our competitiveness and economic success, and gender diversity is our first priority. Our target is to increase female representation in senior leadership to 33% by 2025.

How it is measured

Number of women as a percentage of all those in leadership positions (Executive management team (EMT) and EMT direct reports).

2022 performance

Gender diversity in leadership slightly declined in 2022 to 21%, following a new regionalised structure implemented in 2022.

Revenue

2022	€3,317m
2021	€2,551m
2020	€2,259m
2019	€2,922m

KPI relevance

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

How it is measured

Total Group revenue, as reported in the financial statements.

2022 performance

Revenue for 2022 amounted to €3,317 million, 30% higher than 2021 (€2,551 million) mostly driven by a significant price increase programme of €600 million and also due to currency tailwinds.

Adjusted EBITA margin

2022	11.6%
2021	11.0%
2020	11.5%
2019	14.0%

KPI relevance

EBITA margin provides a measure of profitability and demonstrates the successful execution of the Company's strategy.

How it is measured

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

Adjusted EBITA is an APM and more information can be found on **page 241**.

2022 performance

The Group recorded double digit EBITA margin in 2022, of 11.6% and 60bps higher than 2021. This was due to the price increase programme fully offsetting cost inflation, and also due to currency tailwinds.

Adjusted EPS

2022	€4.82
2021	€4.52
2020	€3.28
2019	€5.57

KPI relevance

Reflecting the income statement in a clear way and taking the equity structure into account, the Board believes Adjusted EPS to be one of the indicators that demonstrates shareholder value.

How it is measured

Earnings per share, excluding other financial income and expenses.

Adjusted EPS is an APM and more information can be found on **page 241**.

2022 performance

Adjusted EPS of €4.82 per share was higher than the €4.52 per share recorded at 2021 largely given the substantial revenue growth of the Group. However, EPS was impacted by below the line items such as higher finance charges, unfavourable foreign exchange movements and higher effective tax rate.

Leverage

2022	2.3x
2021	2.6x
2020	1.5x
2019	1.2x

KPI relevance

Appropriate leverage provides the business with headroom for compelling investment opportunities, but also enables shareholder distribution.

The leverage target range has been increased to 1.0–2.0x (2.5x for M&A).

How it is measured

Net debt to adjusted EBITDA.

2022 performance

Leverage decreased to 2.3x at the end of 2022, 0.3x lower than at year end 2021. Lower leverage was achieved through higher EBITDA. Cash flow was also improved by lower capital expenditure in 2022.

ROIC

2022	11.6%
2021	9.6%
2020	11.5%
2019	15.3%

KPI relevance

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.

How it is measured

Calculated as net operating profit after tax, divided by total invested capital for the year.

ROIC is an APM and more information can be found on **page 241**.

2022 performance

Return on invested capital increased in 2022 to 11.6% due to ramp up of benefits from the Production Optimisation Plan and increased profitability in 2022.

R&D and Technical Marketing spend

2022	€77m
2021	€63m
2020	€62m
2019	€64m

KPI relevance

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

How it is measured

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

2022 performance

€77 million was committed to R&D and Technical Marketing in 2022, equating to 2.3% of revenues, exceeding the Group's annual commitment of 2.2%

Our performance

The platform has been strengthened through the strategic initiatives, which have led to resilient margins despite the global supply chain shocks during 2022.

Read more on our operational review
Page 30

Gross margin

23.0%

2021: 22.9%

Price increases in 2022

€600m

Shipped steel refractory volumes in 2022 versus crude steel production (WSA)

+3ppts

Global steel production (WSA): (4)%

Operational review

- The Europe and Türkiye region continued to seamlessly serve its customers amidst supply chain volatility, whilst gaining market share. The region successfully implemented price increases to cover energy surcharges and to maintain profitability and recorded strong revenue growth despite the loss of business in Russia as a result of sanctions. Infrastructure was installed in most sites in the region to allow for alternative fuels to natural gas, and high inventory levels ensured reliable supply to customers.

- Successful price increases in North America off-set inflationary pressures and logistical costs, including high sea freight costs inbound to the region. However, steel demand started to slow in the second half of the year and shipped volumes softened. Meanwhile, demand in the industrials business remained robust. Overall, profitability was maintained, and the region continues to be the Group's most profitable.

- Revenue in South America increased significantly, benefiting from a successful price increase programme. The Group successfully passed on energy surcharges and inflationary costs, whilst gaining market share.

- India/West Asia/Africa outperformed the overall strong steel production in the region, mostly in India. As well as gaining market share in steel, price increases were implemented in the region to cover the high cost of production of imported goods from Europe. Whilst some profitability was lost given the competitive pricing environment, as a mitigating action, some capacity was shifted from Europe to India to lower production costs for India/West Asia/Africa sales.

- China/East Asia enjoyed significant market share gains in steel, as volumes significantly outperformed steel production which contracted markedly in 2022. The region was also able to pass on some inflationary costs, given some imports to East Asia from Europe. China and East Asia won significant contracts with some of the largest companies in industrials and steel.

Steel overview

Supplying the steel market with refractory products and services accounts for c.70% of RHI Magnesita revenues and the Group retains its position as the market leader globally with a c.15% market share (c.30% excl. China and East Asia). Refractory products line all steel making applications, protecting equipment from extremely high temperatures of up to around 1,800°C, chemical reactions, and abrasion of molten steel. Refractory product applications include iron making (BF or DRI), the primary steel-making process (BOF or EAF) as well as ingot and continuous casting. RHI Magnesita offers a complete set of products and solutions for the entire steel making process. The shortest lifespan of a refractory product in the steel-making process is c.4 hours (the refractory part of a slide gate), whilst the longest lifespan of a refractory product for the steel making process is c.6 months (the lifetime of the working inner lining of the primary steel making application (BOF or EAF). Refractories used in the steel-making processes are therefore classified as an operating expense by steel producers, accounting for around 2-3% of the cost of steel production, on average.

Steel Division revenues increased by 30% to €2,371 million (2021: €1,823 million), and by 21% in constant currency (2021: €1,961 million), largely as a result of the price increases across the product range introduced in order to mitigate inflationary cost pressures.

Compared to a contraction of global steel production of 4% (7% ex-China), according to World Steel Association data, the Group's steel volumes decreased by just 1%. Therefore, volumes outperformed local steel production, demonstrating market share gains despite price increases.

In 2022, steel demand slowed, following a strong rebound in 2021 as markets recovered after COVID-19 lockdowns. Economies globally were softer, as a result of sharp increases in inflation, high supply chain volatility, monetary tightening with rising interest rates and China's slow down. The Russia/Ukraine conflict had a profound impact on energy markets globally, especially in Europe. The appreciation of the US dollar on major global currencies presented another headwind globally, impacting US denominated debt in some economies, which reduced capacity for fiscal and private spending and debt roll-over. However, the India steel market, the second largest steel market globally, grew significantly in 2022, with steel production in India increasing by 6%.

Freight availability and costs started to ease during 2022, following significant disruption in the prior year. Supply chains were further disrupted by supernormal energy costs and labour market tightness, which had an adverse impact on production costs, specifically raw material production. Ocean freight rates on lanes inbound to North America from South America and Europe remained stubbornly high with poor reliability.

Industrial overview

In addition to its Steel Division, RHI Magnesita supplies refractory products to customers in the cement and lime, non-ferrous metals, glass, energy, environmental and chemicals industries. Overall, the Industrial Division makes up c.30% of Group revenues. These customer applications have longer replacement cycles, on average between 1 — 20 years, and are classified as capital expenditure projects. Given the longer replacement cycles, refractory products account for only between 0.2% — 1.5% of the customer cost base. RHI Magnesita has a significant market share globally of c.30% in the cement and lime business, c.30% market share in the non-ferrous metals business, c.20% in glass, and c.5% across industrial applications (energy, environment, chemicals, foundry and aluminium).

The Industrial Division recorded revenue of €946 million in 2022, an increase of 30% compared to 2021 (2021: €729 million), or 23% in constant currency (2021: €767 million). This was significantly higher given successful cost increases passed on to customers from energy surcharges, in addition to favourable foreign exchange movements.

The cement and lime business makes up 11% of Group revenues and in 2022 recorded revenue of €378 million (2021: €339 million in constant currency). Cement and lime volumes were lower across all regions other than North America, and globally volumes were 4% lower compared to 2021. This was due to lower construction activity in most geographies, with China impacted by COVID-19 lockdowns and Europe by the Russia/Ukraine conflict.

Demand for non-ferrous metal refractory products was very strong in 2022, given higher volumes of shipments to complex projects for base metals producers, and the delivery of some delayed projects from 2021. The Group recorded 44% higher revenue than the prior year in constant currency to €219 million (2021: €152 million). This was largely due to the effect of price increases, but also a significant increase in volumes by 22%, globally. The non-ferrous metals business is the most profitable customer segment for RHI Magnesita, and the gross margin was 37% in 2022 (2021: 41%). Markets related to decarbonisation industries such as electric vehicles and batteries, including the copper, nickel, lead and zinc markets, reached pre-COVID-19 level volumes in 2022. However, ferro-alloy markets have not yet recovered to pre-COVID-19 volumes. Two new greenfield copper projects have been contracted in Asia.

The Group's glass business was very strong in 2022 and recorded 41% higher revenue in constant currency of €154 million (2021: €109 million). Higher volumes of 9% were supported by demand from China and an increase in demand from container and bottle production, as well as solar panels. Demand for insulating materials such as glass and mineral wool also increased in the year, from rising energy costs and an increased focus on CO_2 reduction measures.

Industrial applications of refractory products include environment, energy, chemicals, aluminium and foundry businesses. Revenue relating to these applications increased by 4% in constant currency to €102 million (2021: €99 million). Volumes increased by 5%, and increased demand was mostly from the waste incineration sector and the aluminium industry. However, there was some pressure on the energy-intensive industries like petrochemicals, given higher energy costs.

The minerals business recorded revenue of €92 million, 47% higher than in 2021 (2021: €63 million) and 36% higher in constant currency (2021: €68 million).

Europe & Türkiye

In Europe & Türkiye, revenues increased by 24% to €866 million (2021: €701 million) and by 24% in constant currency (2021: €696 million), despite lower volumes compared to 2021 as business was lost from sanctioned customers in Russia. The steel market was softer in the second half of the year given high inflation and energy costs. High inflation and consequently higher interest rates across Europe resulted in higher financing costs, which reduced end market demand (specifically relating to construction). High energy costs led to some EAF shutdowns regionally, as the cost of production became too high. Demand for white goods slowed following an initial boom after the supply chain constraints started in 2021, whilst automotive demand remained soft, due to supply chain bottlenecks for semiconductors persisting.

However, the Group expanded market share across steel and industrial industries across the region by c.2 ppts to c.22%, whilst successfully implementing price increases to cover inflationary input costs, especially relating to energy. Steel revenue in the region increased by 22% in constant currency to €571 million (2021: €468 million). According to the World Steel Association, steel production in the region contracted by 14%, where high energy prices forced some steel mills to close. However, the Group shipped volumes exceeded regional steel production materially, and the region recorded 8% lower steel volumes compared to the prior year, a decline mainly attributable to business lost in Russia. Steel demand is expected to continue to contract in 2023 with energy availability remaining tight, exacerbated by lower demand from a slowdown in China.

Industrial Division revenues increased by 29% in constant currency to €295 million (2021: €228 million), given price increases across all segments. However, European customers in the Industrial Division were more sensitive to price increases towards the end of the year, as input costs increases started to flatten. The Group's end markets of construction and machinery have been especially impacted by the slowdown in the European market, driving a reduction in demand for steel and cement, whereas demand for glass and non-ferrous metals remained strong and is characteristically affected later in the economic cycle.

The supply chain issues in the region started to ease towards the end of 2022, including stabilisation of major ocean freight lanes to China. As supply chains slowly started to normalise, the region was able to reduce inventory coverage ratio to 1.4, from 1.7 at the end of 2021. RHI Magnesita was able to seamlessly serve its customers with considerably reduced lead times compared to 2021.

The Russia/Ukraine conflict had an unprecedented impact on the global energy markets, and more specifically on the availability and cost of natural gas. The European plant network, made up of 12 refractory production plants and four raw material plants (excluding recycling facilities), relies heavily on natural gas.

In order to mitigate the impact of a natural gas supply shortage on production, €7 million on capex was invested during the year to install the necessary infrastructure in the plants to substitute natural gas with LPG.

In the region, the Group continued to strengthen its flow control product line and secured new business for isostatic pressed products and tundish slide gate systems.

A customer in Slovenia expanded its solutions contract to cover connected machinery and refractory optimisation, and another contract was won with a customer in Eastern Europe which included digitalisation tools and a stock management system.

Digitalisation at the customer site continues to be a major focus, used as a tool to cement and win market share in the region. A contract was secured to supply a large French customer with the AGELLIS system, enabling visibility of the steel bath level in the tundish, and allowing for increased steel yield and lower costs. Another major customer in Eastern Europe implemented a suite of RHI Magnesita digital tools, including stock management, connected machines, a refractory consumption dashboard and the customer portal.

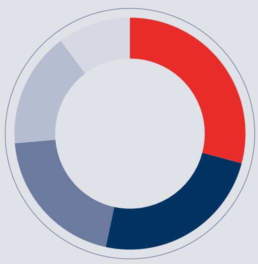
It is becoming increasingly common for customers to request products with a lower carbon footprint. The technical datasheets of RHI Magnesita's entire refractory portfolio provide full transparency of the carbon footprint and are unique within the refractory industry.

Steel revenue

€2,371m

2021: €1,823m

Revenue breakdown by geography in Steel Division



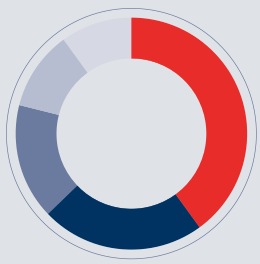
North America	29%
Europe/CIS/Turkey	24%
India/West Asia/Africa	20%
South America	16%
China and East Asia	10%

Industrial revenue

€946m

2021: €729m

Revenue breakdown by industry in Industrial Division



Cement/Lime	40%
Nonferrous metals	23%
Glass	16%
Industrial applications	11%
Minerals	10%

Does not add up to 100 due to rounding.

Operational review
continued

In the UK, a major steel customer has converted to the tundish lining solution, which is 100% free of natural gas consumption. A customer in Austria implemented basic gunning mixes with an ultra-lower CO_2 footprint. The sustainability agenda in the region was significantly supported by the joint venture with Horn & Co., creating 'MIRECO', to increase use of secondary raw material. Read **page 21** of the Strategy report and **page 66** of the Sustainability report for more information.

North America

Revenues for the year totalled €890 million in North America, an increase of 35% compared to 2021 (2021: €659 million) or by 20% on a constant currency basis (2021: €740 million). The US dollar appreciated against the euro on average by c.11% over the year. Growth in revenue was reflective of the price increases implemented over the first half of the year. Prices stabilised in the second half of the year given softer raw material costs and lower inbound freight costs to North America from China.

Revenue for steel in North America was €694 million, an increase of 22% versus 2021 in constant currency (2021: €569 million). Steel production in the region contracted by 6%, according to World Steel Association data. Shipped refractory volumes were stronger than regional steel production, and contracted by just 2%. The steel market started to soften in H2 2022, and by the end of the year average steel prices and lead times for domestic producers had reverted to near pre-pandemic levels, as the strong recovery of the US economy slowed. Sharp interest rate increases by the Federal Reserve to cool inflation has led to a slowdown of manufacturing activities and construction. The Biden government's $1 trillion infrastructure spend is expected to bolster demand despite the deteriorating economic environment. Meanwhile, vehicle production in North America is expected to remain strong provided supply chain bottlenecks ease, such as semiconductor availability.

Industrial Division revenues increased by 14% in constant currency to €196 million compared to 2021 (2021: €172 million) thanks to price increases and a 4% increase in volumes. Within the industrial product range, non-ferrous metals increased by 20% on a constant currency basis whilst volumes increased by 7% and cement and lime adjusted revenue increased by 17% with volume increase of 6%.

Despite headwinds impacting North America, operational execution continued to be a priority and high inventory volume levels allowed for shorter lead times for customers. Inventory coverage ratios reached 3.0x at the end of 2022 from 4.3x at the beginning of the year, given an increased focus on reducing inventory following a peak in H2 2022, as supply chains stabilised.

The region made good progress in flow control, completing customer trials in new tundish mix product lines, which benefit the customer through increased productivity and efficiency in shorter re-lining and pre-heating times. The region has also run successful trials with its customers across the ISO and slide gate product lines.

The solutions business model is prominent in the North American market, and accounts for over 40% of revenues. In 2022, a contract was secured for nine years, worth $150 million, for a steel customer based in the US. Another major steel customer has renewed solutions contracts across eight sites in the US, varying between one to five years tenure.

Across technology and digitalisation, new contracts were secured for the Terminator XL (laser scanner for residual refractory lining measurement with Automatic Guided Gunning) and Hot Vision EAF (visualisation camera at high-temperature environment) with major American steel customers. Across the industrial space, digital refractory profile mapping was extended to cement and lime customers. In 2022, 17 steel customers in North America implemented the SAR+ (Refractory Application System) to collect data to control refractory consumption and this will soon be rolled out across non-ferrous metals too.

> Thanks to the dedicated teams at RHI Magnesita, not only were we able to pass price increases through to match inflation, but we also won market share overall.

Gustavo Franco
Chief of Sales

The Group implemented new R&D projects in 2022, which will increase recycled refractory volume by c.40%, increasing the rate in the region from 4% to 7%. Secondary raw material was converted into other new sustainable products such as ladle backfill, increasing recovery rates further. New K-binder technology (a new type of organic binder used in refractory recipes) was introduced for some steel applications, which is also a cost-competitive way to reduce Scope 1 and 2 emissions since it substitutes the firing process with lower temperature tempering.

South America

South America recorded revenue of €515 million, a significant increase of 43% on 2021 (2021: €359 million), or by 26% in constant currency (2021: €409 million). This was due to the successful management of price increases as inflationary costs and surcharges were passed through to customers in the Steel and Industrial Divisions. The demand in Q4 2022 started to soften, given a highly competitive cost environment. Steel revenue increased by 22% in constant currency to €389 million (2021: €319 million). Shipped refractory volumes in the Steel Division were 5% lower than in 2021, compared to steel production in the region which was also 5% lower, according to World Steel Association data.

Industrial revenues in constant currency increased by 39% over the period to €125 million (2021: €90 million), almost entirely driven by the price increases as industrial volumes increased by 2%.

Steel demand in many countries in South America experienced a contraction in 2022, driven by challenges from a high inflationary environment leading to customer destocking and slowing construction, and lower export demand. Tighter fiscal policy, inflation and higher interest rates could also reduce GDP growth in the region in 2023, coupled with lower commodity prices reducing demand. The automotive sector in the region has also been affected by the scarcity of semiconductors produced in Asia.

The manufacturing sector, mainly in Brazil, was impacted by delays to imports of inputs, shortage of raw materials and high costs.

Inventory coverage ratio reached 1.7x months in the region from 2.3x months at the end of 2021, owing to a more regionalised business model and supply chains started to normalise towards the end of the year.

A new solutions package for value-added services for the cement industry is being piloted in North and South America, which will be available in three tiers of service levels.

Currently, the Group provides over 100 digital solutions to all the industries it serves. The Group's leading research and development expertise combined with cutting-edge technologies like image recognition, Artificial Intelligence, and Blockchain have produced solutions like RefracChain (platform which hosts smart contracts), LES, APO (Automated Process Optimisation), ARO (Automated Refractory Optimisation) and Connected Machines.

Circular economy agreements were made with two major cement and lime customers based on a bundled offer of refractory sales and returned material, allowing for a record level of use of secondary raw material to be reached in the region. Over 200 tonnes of secondary raw material per month will be used for cement products, following investment in patented washed material technology. South America achieved over a 10% recycling rate during 2022 due to combined sourcing, processing, consumption and sales efforts. Over the year, spent refractories also from the paper, cellulose and aluminium industries were collected, supporting customers across all markets with their recycling efforts. In Argentina, the Group focused on supplying a full range of high-quality recycled products to the regional market, in a closed loop approach with steel customers.

India, West Asia & Africa

The India, West Asia & Africa region recorded revenue of €627 million in 2022, a significant increase of 31% in constant currency compared to 2021 (€478 million). This increase was mostly due to price increases, supported by 8% higher sales volumes. On a reported basis, revenue increased by 38% (2021: €455 million). The steel market in India continued to grow in 2022 given higher levels of urban consumption and infrastructure spending, driving demand for capital goods, automobiles and materials for roads and metro projects. India's demand outlook remains strong, led by an increase in India's steel consumption per capita and supported by the government's target to double India steel production capacity by 2030. In West Asia and Africa, higher oil prices are expected to bolster demand for construction activities in the medium term as well as from large infrastructure projects in Egypt.

Steel revenue grew by 27% in the region in constant currency to €486 million (2021: €381 million), with a 9% increase in volumes. This is against a 5% increase in steel production in the region, according to World Steel Association data, which demonstrated significant market share gains. Steel production in India is expected to be stronger than previously anticipated in 2023 given the reversal of a policy to impose an export duty of 15% on steel, although this is expected to be somewhat offset by the imposition of import duties of raw materials.

In West Asia and Africa, further price increases will be implemented in 2023, as some contracts do not yet fully reflect the higher cost environment. There has been an strong focus on increasing the number of solutions contracts in West Asia and Africa, to protect customers from supply chain volatility.

Industrial revenue increased by 47% in constant currency to €141 million compared to 2021 (€96 million). This was driven by price increases and through the sale of more profitable products such as non-ferrous metals. Industrials volumes increased by 3%.

Operational review
continued

Adjusted revenue in the cement business increased by 31% however cement volumes in the India/West Asia/Africa region decreased by 3%. Some market share in the cement business was selectively lost in India, given tight plant capacity. However, the Group's market share in cement grew in West Asia and Africa, coupled with higher margins. A dynamic pricing approach has been taken across the region for industrial customers, offsetting cost volatility.

High inventory levels ensured seamless supply for customers and reduced supply chain volatility. A concerted effort was made to create a more localised supply chain and allow for a reduction in inventory. Shifting some production to India from Europe reduced inventory at sea, and the inventory coverage ratio in the region reduced to 1.5x at year end (2021: 2.4x).

Digitalisation in the region has gained traction and in 2022 the SAR+ was implemented to two customers in West Asia and Africa, and there was increased utilisation of the customer portal for solutions contracts. The EMLI (Electromagnetic Level Indicator) was installed at the tundish of a major steel customer in India, the first of its kind in the region. The APO was installed at two major customer sites in India on steel applications, and a further two were implemented in West Asia.

Within Flow Control, successful trials were executed in the isostatic thin slab segment, tundish cold setting mixes, slide gates and purge beams which either led to customer orders in the region or are expected to convert into orders in 2023. Lastly, a major steel customer in the region made a new order for billet caster refractories.

China & East Asia

The China & East Asia region recorded a revenue increase of 12% compared to 2021, to €420 million (€376 million) on a reported basis and by 4% on a constant currency basis (2021: €405 million) given the depreciation of the euro against the Chinese Yuan and US dollar. Volumes increased by 2% and the Group was able to pass through some inflationary costs. Steel revenues in the region increased by 3% in constant currency to €231 million (2021: €225 million), whilst volumes were flat. Comparatively, World Steel Association data reported a contraction of steel production in China of 2% and a 3% contraction in the region of China and East Asia.

The Chinese economy cooled in 2022, impacted by strict COVID-19 lockdowns aligned to its zero COVID-19 policy, which was abolished in December 2022. The Chinese real estate market, and therefore construction, was especially weak during the year. Infrastructure investment from government measures is expected to support this end market in 2023. Given the Group has a steel market share of just 1%, in the largest steel market globally, China still presents a compelling growth opportunity. Outside of China, developed markets Japan and South Korea weakened towards the end of 2022, impacted by rising material costs and labour shortages causing construction delays. The region was also impacted by currency devaluation and lower demand. Recovery is expected in 2023 led by the automotive end market, as supply chain issues ease, and yet downside risks remain, given the region is a net exporter of steel against a weakening global economic backdrop.

Industrial revenue increased by 5% in 2022 compared to the prior year in constant currency to €189 million (2021: €180 million), driven by volumes increasing by 4%. This is reflective of progress to regionalise the cement market, new technology in glass and winning contracts in non-ferrous metals with key customers.

Supply of refractories into the Chinese and Eastern Asian cement market is expected to strengthen in 2023, with the opening of the new Alumina fired bricks plant in Chongqing, China.

Given higher input costs in the western hemisphere, sourcing of some raw materials and finished products was moved to Asia, which helped to reduce lead times and this ensured products could be priced more competitively. Inventory coverage ratios decreased to 1.5x at 31 December 2022, from 1.6x at 31 December 2021.

The Group targets the high-quality steel segment in the region. Here, the Group's leading capabilities in R&D will benefit sales in 2023 as customers opt for more sophisticated products and services, especially in flow control, such as isostatic products and slide gates. Successful trials of isostatic products have been initiated in Japan and Korea. Given China's cost competitive position, new tundish mixes have been developed in China as an alternative to Eskişehir, Türkiye, given the inflationary environment in Türkiye.

The solutions business model continues to be an effective way of winning and retaining market share. The Group was selected to be the complete solutions provider of refractories for future projects with the largest steel producer in the world, based in China. A major contract with the largest steel producer Vietnam, was successfully renegotiated for three years at a price of €65 million, where RHI Magnesita manage their working capital, helping to drive efficiency gains against volatile supply chains. The Group have agreed to partner with a major customer based in South Korea on the design and development of refractories for the DRI smelting unit, as the sustainable partner of choice, as customers start to decarbonise their processes.

Performance

Financial review

Ian Botha
Chief Financial Officer (CFO)

I am pleased to report that we delivered a strong increase in revenue, earnings and profit margins thanks to the success of the price increases, off-setting input cost inflation, and reduced financial leverage.

Read more on APMs on
Page 241

Revenue

The Group recorded revenue of €3,317 million, 22% higher than 2021 (€2,729 million) on a constant currency basis and by 30% on a reported revenue basis (€2,551 million). The FX revenue tailwind was largely due to a significant appreciation of key currencies against the euro including: 11% appreciation of US dollar (39% of Group revenues), appreciation of Brazilian real by 14% (6% of Group revenues), appreciation of Indian rupee by 6% (7% of Group revenue) and appreciation of Chinese yuan by 8% (6% of Group revenues). The Turkish lira depreciated by 66% against the euro (1% of Group revenues). The Group benefited from a material increase in product price increases throughout 2022 of €600 million to offset a significant rise in input costs including labour, raw materials and energy.

Raw material prices

The price of high grade dead burned magnesia ("DBM") from China was on average 2.2% higher in 2022 compared to 2021, and medium grade DBM was on average 7.7% higher.

During 2022 raw material prices softened following a sharp increase in prices during Q4 2021, with high grade Chinese DBM declining by 14% in 2022 and medium grade DBM from China declining by 22%. The price of Chinese electrofused magnesia declined by 25% given weak demand and overcapacity. Chinese raw materials prices softened during 2022 given stable energy markets and subsidies in China, keeping local production costs low. Prices are likely to remain at current levels through H1 2023.

Steel Division

The Group's Steel Division delivered revenue of €2,371 million, an increase of 30% on a reported basis (2021: €1,823 million) and 21% on a constant currency basis (2021: €1,961 million) and represents 71% of Group revenue. Revenue from South America increased by 40% on a reported basis and by 22% on a constant currency basis. Reported revenue from North America increased by 38%, and 22% on a constant currency basis. Volumes in South America decreased by 5% and in North America also decreased by 2%; however the Group was successfully able to implement price increases across these regions which was coupled with a strong FX tailwind from the strength of the US dollar and Brazilian real. Revenue in India & West Asia increased by 35%, and by 27% on a constant currency basis, as it benefited from significant steel market growth reflected in shipped volumes which increased by 9%. Revenue in Europe and Türkiye increased by 20%, or by 22% on a constant currency basis, given small market share gains and the implementation of price increases in the region to off-set high inflationary pressures, notably energy. Volumes in the Europe & Türkiye region decreased by 8%. Revenue in China and East Asia increased by 12%, or 3% on a constant currency basis, with regional steel volumes flat despite the slowdown in China and steel production contraction.

Industrial Division

The Industrial Division recorded revenues of €946 million, 30% higher on a reported basis (2021: €729 million) and 23% higher than 2021 (2021: €767 million) on a constant currency basis. Cement and lime represents 11% of Group revenues, and in 2022 grew by 18% to €378 million, from €322 million in 2021. Pricing for cement and lime recovered in 2022 following softer pricing in 2021 given the lower raw material pricing environment in 2020. Non-ferrous metal revenues increased by 51% in 2022 to €219 million (2021: €145 million), largely due to significant price increases during 2022, where implementation was delayed in 2021 due to later cycle contracts, and also from increased demand, especially for copper and nickel. Revenue in the glass division increased by 47% to €154 million from €105 million in 2021, benefiting from increased demand from China and from the solar panel market. Industrial applications increased by 9% to €102 million (2021: €94 million). Mineral sales recorded revenue of €92 million (2021: €63 million).

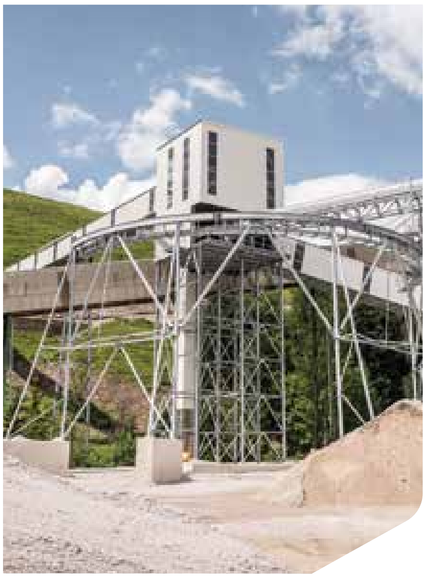
Reporting approach

The Company uses a number of alternative performance measures ("APMs"), in addition to those reported in accordance with International Financial Reporting Standards ("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 that 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 2021 numbers in this review are on a reported basis, unless stated otherwise. Figures presented at constant currency represent 2021 translated to average 2022 exchange rates as disclosed in Note 3 to the Financial Statements. All reported volume changes year-on-year are excluding mineral sales, which is reported under the industrials division. All reported volume changes year-on-year are excluding mineral sales. Revenue for mineral sales is reported under the industrials division.

Performance

Financial review
continued



Steel	2022	2021 (reported)	Change
Revenue (€m)	**2,371**	1,823	30%
Gross profit (€m)	**521**	393	32%
Gross margin	**22.0%**	21.6%	40bps

Industrial	2022	2021 (reported)	Change
Revenue (€m)	**946**	729	30%
Gross profit (€m)	**242**	190	27%
Gross margin	**25.6%**	26.1%	(50)bps

Cost of goods sold

Cost of goods sold increased by 30% to €2,554 million in 2022, from €1,968 million and by 22% from €2,097 million on a constant currency basis.

Cost inflation was especially high compared to 2021 across purchased raw materials, energy, plant personnel costs, freight and supplies. Cost of production was also higher due to fixed cost under absorption as production was reduced to lower inventory levels, an impact of €63 million.

Externally purchased raw materials costs increased by €197 million to €1,173, an increase of 20% on the prior year on constant currency (2021: €976 million).

Energy markets became extremely volatile in 2022 following a significant increase in costs starting in H2 2021 as post pandemic demand returned, coupled by the Russia/Ukraine conflict which caused a shortage of natural gas globally and especially in Europe. Energy costs during the year increased by 41% on constant currency to €285 million from €202 million in 2021. The Group had pre-purchased 53% of its energy contracts (including European natural gas and power contracts), mitigating some of this volatility.

The cost of ocean freight lanes, which substantially increased during 2021, started to normalise in 2022 as represented by the Shanghai Containerised Freight Index, which was on average 12% lower in 2022 than 2021, reflective of overall Asia outbound freight rates returning back to pre-pandemic levels. However, the cost of some commonly used freight lanes by the Group such as inbound to North America (East Coast) and South America from Europe remained very high and significantly above pre-pandemic levels. Port congestion decreased significantly however, which has improved planning accuracy. Land freight and transport costs increased during 2022, mostly due to fuel and labour costs. Compared to 2021, freight costs increased by 17% on constant currency to €285 million in 2022 (2021: €244 million).

General supplies such as pallets, packaging and spare parts increased to €171 million, an increase of 18% on constant currency (2021: €145 million).

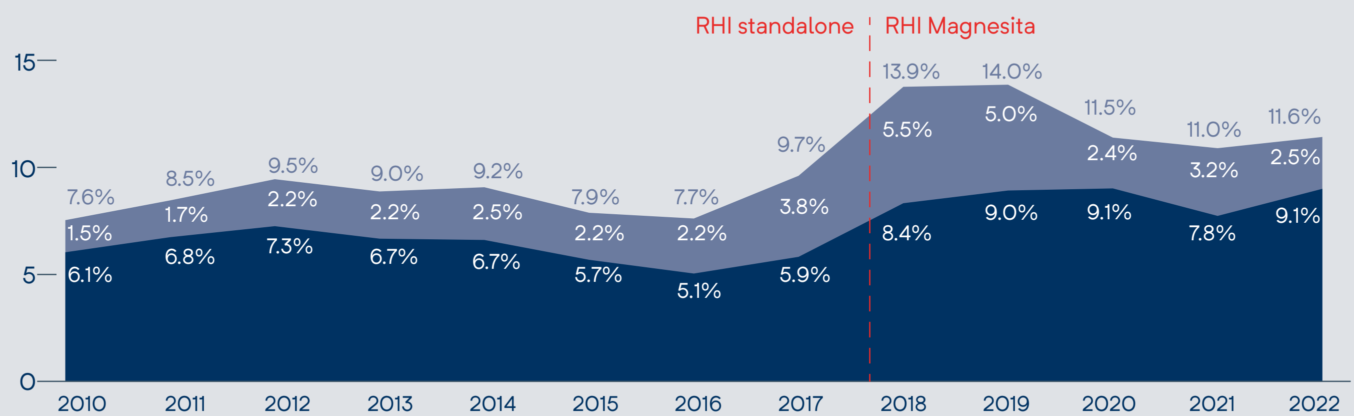
Gross profit

The Group recorded gross profit of €763 million in 2022, an increase of 31% (2021: €584 million) and 21% on a constant currency basis (2021: €632 million). Gross margin was 23.0%, 10bps higher than 2021 (2021: 22.9%), however 20bps lower on a constant currency basis (2021: 23.2%). Strength of major currencies against the euro such as the US dollar, Indian rupee and Brazilian real were an FX tailwind to gross profit.

Broadly stable gross margin on an FX adjusted basis reflects how effectively the price increase programme offset the inflationary cost pressures of raw material, energy, freight and labour.

On a divisional basis, gross profit in the Steel Division of €521 million represented an increase of 32% against the previous year (2021: €394 million), while gross margin increased by 40bps to 22.0%, (2021: 21.6%). Gross profit in the Industrial Division amounted to €242 million (2021: €190 million), up by 27% against the prior year, and gross margin declined by 50bps to 25.6% (2021: 26.1%).

Adjusted EBITA margin %



Vertical integration margin
Refractory margin

Adjusted earnings per share

€4.82

2021: €4.52 per share

Adjusted EBITA margin

11.6%

2021: 11.0%

Capital expenditure

€157m

2021: €252m

SG&A

Total selling, general and administrative expenses, before R&D related expenses, were €375 million, representing a 26% increase against the prior year (2021: €297 million) given inflationary costs. Personnel and personnel-related expenses increased by €32 million. FX impacted SG&A by a further €14 million. The Group also incurred bad debts of €4 million. Additional expenditure in the year related to supply chain management initiatives, digitalisation and sustainability.

Depreciation and amortisation

Depreciation for 2022 amounted to €116 million (2021: €109 million), 6% higher than 2021. Depreciation was flat on a constant currency basis (2021: €117 million). Depreciation in 2023 is expected to be around €120 million, excluding depreciation of the assets of DBRL, Hi-Tech and Jinan New Emei. These will contribute a further c.€10 million in depreciation in 2023.

Amortisation of intangible assets amounted to €29 million in 2022 (2021: €22 million).

Adjusted EBITDA

Adjusted EBITDA amounted to €500 million, up by 28% compared to 2021 (2021: €389 million). The adjusted EBITDA margin for 2022 was 15.1%, compared to 15.2% in the prior year, a decrease of 10bps. At constant currency, EBITDA margin was 80bps lower (2021: 15.9%)

Adjusted EBITA

The Group delivered adjusted EBITA in 2022 of €384 million, an increase of 37% compared to 2021 (2021: €280 million), as the €600 million increase in revenues more than offset the €542 million of supply chain, raw material and energy related cost headwinds and slightly softer sales volumes of €16 million. The Group realised an incremental €24 million in 2021 from its strategic initiative programmes, with cost-saving initiatives contributing €10 million and sales strategies €14 million.

Given the success of the price increases over the year, revenue grew by 30% in line with cost of sales which also increased by 30%, and the Group adjusted EBITA margin increased by 60bps to 11.6% (2021: 11.0%). On a constant currency basis it remained broadly flat at 11.6% (2021: 11.7%).

The Group's vertical integration margin was impacted by higher cost of production of raw materials for internal consumption given higher energy and labour costs, and it consequently decreased by 70bps to 2.5% (2021: 3.2%). The Group's refractory margin improved by 130bps to 9.1%, as the Group recovered its supply chain headwind costs through price increases compared to 2021 where there was a delay in implementing price increases to cover the higher cost environment. The EBITA contribution of the Group's raw material assets was €81 million, unchanged from 2021 (2021: €81 million), based on external market price benchmarks for the raw materials produced.

Net finance costs

Net finance costs in 2022, including gains and losses relating to foreign exchange, amounted to €73 million (2021: €25 million).

Net interest expense amounted to €19 million in 2022 (2021: €7 million), with interest expenses on borrowings of €27 million (2021: €21 million) and interest income of €8 million (2021: €14 million). Interest income in 2021 benefited from a one-off gain of €11 million relating to a favourable indirect tax ruling in Brazil. Interest income in 2022 benefited from a higher interest rate environment.

Interest expenses on borrowings increased due to higher benchmark interest rates on floating debt, and the average cost of borrowing increased from 1.4% to 1.9% (including swaps), as well as higher average gross debt.

(€m)	2022	2021	2021 at constant currency	% change reported	% change at constant currency
Revenue	**3,317**	**2,551**	**2,729**	**30%**	**22%**
Cost of sales	(2,554)	(1,968)	(2,097)	30%	22%
Gross profit	**763**	**584**	**632**	**31%**	**21%**
SG&A	(375)	(297)	(308)	26%	22%
R&D expenses	(33)	(28)	(29)	17%	13%
Other Income & Expenses(OIE)	(11)	(44)	(42)	(74)%	(73)%
EBIT	**344**	**214**	**252**	**61%**	**36%**
Amortisation	29	22	24	29%	21%
EBITA	**372**	**236**	**276**	**58%**	**35%**
Adjusted items	11	44	42	(74)%	(73)%
Adjusted EBITA[1]	**384**	**280**	**318**	**37%**	**21%**
Refractory EBITA	301	199	—	52%	—
Vertical integration EBITA	81	81	—	—	—

1. Adjusted EBITA s an APM used by the Group. Refer to **page 241** for definitions.

(€m)	2022	2021
Net interest expenses	**(19)**	**(7)**
Interest income	8	14
Interest expenses	(27)	(21)
FX effects	**(23)**	**3**
Balance sheet translation	(10)	(2)
Deliverables	(13)	5
Other net financial expenses	**(31)**	**(21)**
Present value adjustment	(9)	(6)
Factoring costs	(7)	(5)
Pension charges	(6)	(5)
Non-controlling interest expenses	(1)	(4)
Other	(8)	(1)
Total	**(73)**	**(25)**

> We have a long dated amortisation profile with competitive cost of debt, with an average interest rate of around 190bps, all-in, in 2022.

Rodrigo Guerra
Group Treasurer

(€m)	2022 reported	Items excluded from adjusted performance	2022 adjusted	2021 reported	Items excluded from adjusted performance	2021 adjusted
EBITA[1]	**372**	**11**	**384**	**236**	**44**	**280**
Amortisation	(29)	29	—	(22)	22	—
Net financial expenses	(73)	7	(66)	(25)	6	(19)
Result of profit in joint ventures	0	—	0	100	(91)	9
Profit before tax	**270**	**47**	**318**	**289**	**(19)**	**270**
Income tax	(104)	24	(80)	(39)	(10)	(49)
Profit after tax	**167**	**70**	**237**	**250**	**(28)**	**222**
Non-controlling interest	11	—	11	7	—	7
Profit attributable to shareholders	156	70	226	243	(28)	215
Shares outstanding[2]	47.0	—	47.0	47.6	—	47.6
Earnings per share (€ per share)	3.31	1.51	4.82	5.10	(0.58)	4.52

1. EBITA reconciled to revenue on **page 37**. EBITA is an APM, refer to **page 241** for definition.
2. Total issued and outstanding share capital as at 31 December 2022 was 47,017,695. The Company held 2,460,010 ordinary shares in treasury. Weighted average number of shares used for basic earnings per share 47,000,708.

Numbers may not cast due to rounding.

Foreign exchange losses of €23 million were incurred including losses on embedded currency derivatives in sales contracts of €13 million and net exchange losses on translation of monetary assets and liabilities of €10 million. This given the considerably more volatile foreign exchange movements in 2022. Comparatively, a foreign exchange gain of €3 million was incurred in 2021.

Other net financial expenses amounted to €31 million in 2022 (2021: €21 million). This was mostly due to the recurring non-cash impact of the onerous raw material supply contract, imposed as an EU remedy upon the merger of RHI and Magnesita of €9 million (2021: €6 million), factoring costs of €7 million (2021: €5 million), interest costs and fair value adjustments on puttable or fixed term non-controlling interest liabilities of €1 million (2021: €4 million) and pension charges of €6 million (2021: €5 million). Other mainly includes transaction costs and interest on finance leases.

Adjusted net financial expenses of c.€65 million are guided for 2023, comprising net interest expenses on debt facilities and cash balances of c.€40 million (2022: €19 million) and other financial expenses of c.€25 million including above others, present value adjustments, pensions charges, factoring and transactions costs.

The expected increase in net interest expenses is driven by higher interest costs on floating debt facilities and newly refinanced facilities as well as additional borrowings to fund acquisitions during the period.

Other expenses that are excluded from the adjusted net financial expenses guidance given above include the potential impact of foreign exchange rates on balance sheet translations and the value of embedded derivatives in sales contracts, which amounted to expenses of €23 million in 2022.

Items excluded from adjusted performance

In order to accurately assess the performance of the business, the Group excludes certain items from its adjusted figures, to better understand underlying performance. In 2022, these adjustments comprise:

- €11 million recorded in "restructurings, other income and expenses", relating to the reversal of the impairment of the Mainzlar plant, Germany and Russia bad debts and inventory write downs, land sales, termination of a sales agent contract, one-off project expenses, acquisitions and internal business restructurings;
- €29 million amortisation of intangible assets;
- €7 million non-cash other net financial expenses, these include €6 million non-cash present value adjustment of the provision for the unfavourable contract required to satisfy EU remedies at the time of the combination of RHI and Magnesita to form RHI Magnesita; and
- €24 million income tax adjustments mainly from non-cash one-off (i) restructuring, (ii) charges following agreements with tax authorities on the allocation of group functions and responsibilities, (iii) adjustments to prior year tax provisions.

ROIC

11.6%

2021: 9.6%

Adjusted EBITA

€384m

2021: €280m

Operating cash flow

€155m

2021: €(254)m

Shareholder returns & M&A

€136m

Taxation

Total tax for 2022 in the income statement amounted to €104 million (2021: €39 million), representing a 38% reported effective tax rate (2021: 14%). The effective tax rate in 2022 increased, mainly from non-cash one-off items including (i) restructuring, (ii) charges following agreements with tax authorities on the allocation of group functions and responsibilities, and (iii) reduction in the deferred tax asset valuation following the reduction in the Austrian tax rate. See note 14.

Reported profit before tax amounted to €270 million (2021: €289 million). Adjusted profit before tax amounted to €318 million (2021: €270 million), with an adjusted effective tax rate of 25% (2021: 18%). Adjusted items include tax expenses related to one-off restructuring or unrelated business items.

The adjusted effective tax rate guidance is between 23 — 25% for 2023.

Profit after tax

On a reported basis, the Group recorded a profit after tax of €167 million (2021: €250 million) and earnings per share of €3.31 per share in 2022 (2021: €5.10 per share). Adjusted profit after tax was €237 million (2021: €222 million) and adjusted earnings per share for 2022 was €4.82 per share (2021: €4.52 per share).

A full reconciliation of EBITA to EPS and adjusted EBITA to adjusted EPS can be found on the table on page 38.

Earnings guidance

The Group's outlook for revenue, EBITDA and EBITA in 2023 is broadly in line with current analyst consensus.

Refractory sales volumes are expected to be up to 5% lower in 2023, reflecting lower steel demand from customers in China and South America, and a contraction in construction activity which will affect steel, cement and lime, non-ferrous metals and glass demand globally.

Finished goods pricing is forecast to be softer compared to 2022 as lower raw material prices and normalisation of sea freight rates are only partially offset by higher energy and labour costs for non-vertically integrated competitors.

Reduced costs from lower prices for externally purchased raw materials and normalised sea freight rates are expected to be offset by higher year on year energy costs and labour inflation. Whilst spot energy prices in certain geographies and benchmarks have returned to lower levels, oil prices remain elevated and the Group's overall hedged position for energy prices in 2023 is an increase on 2022 actual costs. Broadly flat unit costs are therefore expected to lead to a direct pass through of lower pricing to profitability.

The low vertical integration EBITA margin contribution of 1.7% recorded in the second half of 2022 is expected to persist into 2023 due to lower global prices for magnesite and dolomite based raw materials, combined with higher energy and labour costs at the Group's raw material production sites. Refractory margins may also be impacted by lower refractory pricing, resulting in a total Group EBITA margin of around 10% in 2023 (2022: 11.6%).

Working capital

Working capital increased by €241 million to €918 million (2021: €677 million), which represented 25.4% in working capital intensity (2021: 23.3%), measured as a percentage of the last three months' annualised revenue of €3,615 million.

Working capital comprised; €1,049 million of inventory (2021: €977 million) and inventory intensity of 29.0% (2021: 33.6%), accounts receivable of €375 million (2021: €349 million) and accounts receivable intensity of 10.4% (2021: 12.0%) and accounts payable of €507 million (2021: €649 million) and accounts payable intensity of 14.0% (2021: 22.3%).

Inventories increased by €72 million during 2022 to €1,049 million (2021: €977 million), given inflationary costs and foreign exchange impacts. Non-cash foreign exchange translation differences amounted to €23 million, given the volatile foreign exchange movements during 2022. Cost inflation of finished goods and raw material increased the inventory value by a further €195 million. The inventory balance increased by an additional €19 million from M&A. These headwinds more than off-set the reduced inventory volumes to 607 kilotonnes, 182 kilotonnes lower than at year-end 2021 (2021: 789 kilotonnes). The volume reduction had a positive impact on the inventory balance of €(165) million.

A decision was taken in 2021 to pro-actively increase inventory of raw materials and finished products given disruption across ocean freight lanes and supply bottlenecks, as economies re-opened. As these have improved in recent months, the finished goods coverage ratio has been reduced from 2.5x months at 31 December 2021 to 1.8x months at 31 December 2022, and raw materials coverage ratio from 2.4x months at 31 December 2021 to 2.3x months at 31 December 2022.

Accounts receivable increased by €26 million at the end of 2022 reflective of higher product pricing and including an additional €9 million of accounts receivable from the integration of SÖRMAŞ and Horn & Co. Accounts receivable is calculated as trade receivables plus contract assets less contract liabilities, and a full reconciliation can be found in the APMs on **page 241**.

Accounts payable decreased by €143 million to €507 million (2021: €649 million), due to a lower volume of externally purchased raw materials than in 2021. Accounts payable refers to trade payables as per the financial statements on note 32.

Performance

Financial review
continued

> We increased our cash flow conversion to 40% from (91)% in 2021, thanks to higher profitability, lower working capital outflows and lower capex.

Ian Botha
CFO

Working capital financing, used to provide low-cost liquidity and support the Group's commercial offering to customers, stood at €314 million at the end of the year (31 December 2021: €320 million). This comprised €245 million of accounts receivable financing (factoring) (2021: €178 million) and €69 million of accounts payable financing (forfeiting) (2021: €142 million). Working capital financing levels vary according to business activity, and the Group targets an upper limit of €320 million.

Working capital cash outflow amounted to €195 million. Non-cash negative impact from working capital on the balance sheet amounted to €46 million, with €24 million relating to consolidation of M&A and €22 million relating to currency translation.

The Group made good progress in reducing its inventory volumes by 23% in 2022, with a weighting towards H2. In 2023 the Group plans to keep production volumes broadly in line with demand. The Group is running at higher levels of inventory compared to before the pandemic in 2019, as it prioritises security of supply for its customers. This delivered material benefits in the form of market share gains and price increases in 2022. Given the value creation from higher inventory levels in 2022, the Group is now targeting for working capital intensity to remain at around 25% during 2023.

Other assets and liabilities

Cash flows from other assets and liabilities amounted to €(2) million (2021: €(115) million) mainly relating to; indirect and other tax of €29 million (2021: €(53) million), employee pension pay outs and pension provision movements of €(25) million (2021: €(19) million), employee variable remuneration and employee related provisions of €16 million (2021: €(17) million) and other of €(21) million (2021: €(25) million).

Capital expenditure

Capital expenditure ("capex") in 2022 was €157 million (2021: €252 million), comprising €77 million of maintenance capex (2021: €75 million) and €79 million of project capex including €13 million from businesses acquired (2021: €177 million). Capex has started to return to lower levels in 2022, following the peak capex year for the Group in 2021 as it invested in its production optimisation plan. In 2022, the Group invested €37 million (2021: €61 million) towards its raw material assets, including maintenance capex of €13 million (2021: €13 million) and project capex of €24 million (2021: €48 million).

The project capex of €79 million spent in 2022 was below prior guidance of €115 million given delayed projects and the Group's decision to temporarily suspend the project at Contagem, Brazil. Project capex amounting to €20 million has moved into 2023 from 2022, to complete the Brumado tunnel kiln, the Alumina plant expansion at Chongqing, China and the manufacturing execution systems ("MES") project at Radenthein, Austria.

Capital expenditure in 2023 is expected to be around €200 million. This comprises €85 million of maintenance capex and €75 million of expansionary capex, both as previously guided. In addition, there is €20 million of maintenance and integration capex at new acquisitions in India and China and €20 million of expansionary capex previously guided to be incurred in 2022 carried forward into 2023 due to the timing of payments on capital projects.

Cash flow

The Group generated adjusted operating cash flow of €155 million in 2022 (2021: €(254) million outflow), representing cash flow conversion from adjusted EBITA of 40% (2021: (91)%). Adjusted operating cash flow was materially higher in 2022 compared to 2021, given lower expansionary capex, following the peak investment on the Production Optimisation Plan in 2021. Despite the inflationary environment, the inventory volume reduction helped to lower working capital cash outflow in 2022 compared to 2021. Lower cash outflows were coupled with higher EBITDA by 28%.

Free cash flow was €43 million (2021: €(347) million). Income taxes paid €54 million (2021: €39 million) and net interest paid were €36 million (2021: €25 million).

Cash change in net debt was an increase of €82 million (2021: €416 million). Investment in subsidiaries including the acquisitions of Horn and SÖRMAŞ amounted to €65 million (2021: €3 million — inflow). Dividend payments were flat €71 million (2021: €71 million).

Cash flow €m[1,2]	**2022**	2021
Adjusted EBITDA	500	389
Share based payments — gross non cash	8	6
Working capital changes	(195)	(283)
Changes in other assets and liabilities	(2)	(115)
Investments in PPE, IA	(157)	(252)
Adjusted operating cash flow[3]	**155**	**(254)**
Income taxes paid	(54)	(39)
Cash effects of other income/expenses and restructuring	(24)	(51)
Cash inflows from the sale of PPE, IA	2	12
Cash inflows from the sale of financial assets	3	0
Investment subsidies received	1	2
Cash inflow from joint ventures and associates	0	8
Net interest paid/received	(36)	(25)
Net derivative cash inflow/outflow	(2)	1
Dividend payments to NCI	(2)	(1)
Free cash flow	**43**	**(347)**
Investment in subsidiaries net of cash (SÖRMAŞ, Horn, Chongqing)	(65)	3
Cash in from sales of subsidiaries net of cash	9	95
Treasury stock	0	(96)
Dividend payments	(71)	(71)
Change financial receivables from joint ventures & associates	2	0
Cash change in net debt	**(82)**	**(416)**
Debt from acquisitions (Horn/SÖRMAŞ)	(19)	—
New lease obligations	(20)	(13)
Exchange effects	(33)	(3)
Actual change in net debt	**(154)**	**(432)**

1. The cash flow reconciliation to net debt has been restated to reflect a change in definitions of adjusted operating cash flow, free cash flow and cash change in net debt.
2. A full reconciliation to the change in cash and cash equivalents can be found in the APM section on **page 241**.
3. Adjusted operating cash flow is an APM. A definition and reconciliation can be found in the APM section on **page 241**.

Net debt[1]

Net debt at the end of 2022 was €1,168 million (2022: €1,014 million), comprising total borrowing of €1,624 million, IFRS 16 leases of €64 million, cash and cash equivalents of €521 million.

Net debt to Adjusted EBITDA at the year-end was 2.3x (2021: 2.6x) and as such an outperformance against most recent guidance in November 2022 that leverage at the end of the year would be around 2.4x.

Additional refinancing was conducted in 2022 to maintain liquidity levels, extend debt maturities and establish links to the Group's sustainability performance.

In May 2022, RHIM refinanced the outstanding principal of €260m of the €305 million OeKB Term Loan maturing in June 2023 and increased the overall facility amount by signing an additional OeKB-backed tranche of €90 million. The total outstanding loan balance as of 31 December 2022 is €350 million and the refinanced loan now has a final maturity in May 2027. In July 2022, the Group secured a new environmental, social and governance ("ESG") linked €250 million term loan maturing in 2027 of which proceeds were used to refinance the $200 million term loan maturing in 2023 at very competitive interest rates. Additionally, the maturity of the Group's €600 million Syndicated RCF was extended by one year to 2028 through the execution of the third extension option.

Out of the total gross debt of €1,624 million, 96% is denominated in euro. The floating to fixed ratio of the gross debt is 24% to 76% and the average interest rate is 1.9% (including swaps).

Total liquidity for the Group at year end was €1,121 million, including undrawn committed facilities of €600 million and a cash balance of €521 million.

The Group will have debt maturities of €215 million in 2023, of which €79 million are rollable facilities.

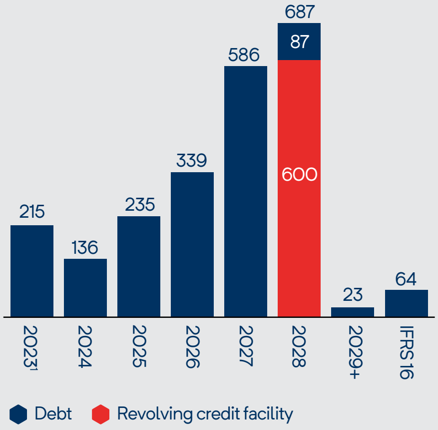
Gearing levels may increase from the 2.3x recorded on 31 December 2022 due to €200 million of cash outflow from M&A (DBRL, Hi-Tech and Jinan New Emei) and lower profitability in 2023 caused by lower demand.

RHI Magnesita India Limited ("RHIM India"), the Group's 60% owned subsidiary, which is listed on the National Stock Exchange of India and the Bombay Stock Exchange, has requested authority from its shareholders to raise funds from the issuance of new equity up to an amount of ₹1,500 crore (c.€170 million). The proceeds from any potential equity raise would be used for the repayment or partial repayment of ₹1,300 crore (c.€147 million) of loans used to finance the acquisitions of DBRL and Hi-Tech, which completed in January 2023, and for general corporate purposes. If approved, the shareholder authority would remain in place for 12 months. Any equity raise carried out under this authority is subject to market conditions. The Group will retain its majority shareholding in RHIM India.

1. Net debt is an APM. The definitions and calculations thereof can be found in the APM section on **page 241**.

Financial review
continued

Debt amortization profile
(€m as at 31 December 2022)



1. €79m are rollable facilities.

Change to target gearing range

As part of its stated capital allocation policy, the Group has previously sought to maintain a net debt to EBITDA ratio of 0.5 to 1.5x, with potential to increase to over 2.0x in the case of M&A. The Board believes it is appropriate to revise the targeted gearing range, considering:

(i) the Group's current and forecast level of gearing in the medium term;

(ii) the resilience of margins and profitability throughout economic cycles;

(iii) the improved reliability for customers resulting from higher levels of working capital in 2022; and

(iv) the strength of the current M&A pipeline.

For the duration of the expected phase of consolidation in the refractory industry, the Group will now target a net debt to EBITDA ratio of 1.0 to 2.0x, with flexibility to increase to over 2.5x in the case of compelling M&A opportunities. The Board believes that it is in the interests of shareholders to seek this increased flexibility due to the acquisition opportunities that are available and the demonstrated stability of the Group's earnings.

Return on invested capital[2]

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 2022 was 11.6% (2021: 9.6%), from a total of €2,587 million of invested capital (2021: €2,291 million) and €301 million net operating profit after tax (NOPAT) (2021: €219 million). Raw material ROIC was 12.3% (2021: 16.2%), from a total of €466 million of invested capital (2021: €377 million) and €57 million NOPAT (2021: €61 million).

2. ROIC is an APM used by the Group. The definitions and calculations thereof can be found in the APM section on **page 241**.

Strategic initiatives

The Group is progressing two significant strategic programmes to sustainably increase earnings.

The Production Optimisation Plan seeks to rationalise the Group's global production footprint through the closure of up to ten sites (with a focus on Europe and South America) and investments in remaining facilities to increase plant scale and specialisation, reduce raw material costs and implement new technologies.

The Group has completed all plant closures and projects across North America, Germany, India and China during 2022. The Group completed its project to create the leading Dolomite Resource Centre in Europe through the investment in a new mine and installation of a tunnel kiln at Hochfilzen, Austria. It also made substantial progress at its Radenthein plant, Austria.

In 2022, the cost reduction initiatives delivered EBITA benefit of €76 million, representing an incremental increase of €10 million on 2021.

The cumulative targeted benefits from sales strategies in 2023 remains €40-60 million. However, total savings to be derived from the cost optimisation plan are now expected to be in the region of €85 million in 2023 compared to the previously guided figure of €110 million, due to the suspension of the second stage of the Contagem plant upgrade in Brazil and the decision not to close the Mainzlar plant in Germany. The full benefits of the strategic cost savings are now expected to be realised from the start of 2024 due to construction delays at the rotary kiln in Brumado. The Mainzlar plant will operate more competitively in the future following the launch of a new line of doloma products to serve new customers, with raw material sourced from Hochfilzen, Austria.

The Group's sales strategies seek to grow RHI Magnesita's presence in new markets including India and China, increase market share in the flow control product range and expand the solutions business targeting 40% of revenue by 2025, supported by investment in digitalisation.

Sales strategies delivered €32 million of cumulative EBITA in 2022. The Group is targeting to achieve the lower end of €40 — 60 million in 2023 but exceeded its target of €30 million in 2022. The Group increased the percentage of Group revenue from solutions contracts to 32% in 2022 (2021: 29%).

The Group benefitted from strong organic and inorganic revenue contribution from new markets, and the JV with Chongqing in China and acquisition of SÖRMAŞ in Türkiye. It will benefit further in 2023 from the acquisitions of the refractory business of Hi-Tech and the Indian refractory business of DBRL, both based in India. Increased flow control sales are expected in 2023 following successful trials during 2022. Flow Control is a target product group given its higher margins, higher return on capital and complimentary cross-selling to customers.

Flow Control pricing increased at a lower rate than refractory linings, especially in the tundish product segment, and percentage of revenue decreased to 15.8% (2021: 17.0%). 2021 Flow Control revenue was restated to €433 million (from €430 million) due to a re-classification internally).

For more information on the strategic initiatives, read **pages 14 and 25** of the strategic review.

M&A

The Group targets acquisition opportunities in new markets in which it is underrepresented such as India, China and Türkiye, and complementary to its existing plant footprint. It also targets new product segments, such as the non-basic segment (e.g. Alumina). The Group seeks to achieve synergies in excess of 30% EBITDA upon integration, and integration would usually complete within two years.

In December 2021, the Group completed the acquisition of a 51% ownership stake in Chongqing Boliang Refractory Materials in return for an initial consideration of €5 million and is currently investing €15 million into a new production capacity to build a state-of-the-art Alumina fired bricks plant to serve the Cement market. The new plant is on track to start production in Q3 2023.

In May 2022, the Group acquired a 51% stake in Horn & Co Minerals Recovery GmbH & Co KG, to combine its recycling activities in Europe to create a newly formed entity, MIRECO Horn & Co. RHIM Minerals Recovery GmbH. The Group increased its recycling rate to 10.5% in 2022 and benefited from increased availability of raw material supply.

In September 2022, the Group completed its acquisition of an 87% ownership stake in Söğüt Refrakter Malzemeleri Anonim Şirketi (SÖRMAŞ), a producer of refractories for the cement, steel, glass and other industries in Türkiye, for a consideration €45 million in cash.

On 5 January 2023, the Group closed the acquisition of the Indian refractory business of Dalmia Bharat Refractories Limited (DBRL) via a Share Swap Agreement, in exchange for 27 million shares in RHI Magnesita India Limited, a 60% owned subsidiary of the Group which is listed on the Bombay Stock Exchange and National Stock Exchange of India. DBRL is one of the leading refractory producers in India with production capacity of over 300k tonnes per annum from five refractory plants, inclusive of a 51% joint venture in Katni, India. Following the acquisition, the Group's shareholding in RHI Magnesita Limited reduced from 70% to 60% and the Dalmia Bharat Group and minority shareholders in DBRL now hold a combined 14% stake in RHI Magnesita India Limited. Based on the closing share price of RHI Magnesita India Limited on 18 November 2022 of ₹645 per share, the Consideration Shares had a value of approximately ₹17,424 million (€212 million).

DBRL recorded adjusted EBITDA of ₹945 million (€12 million) in the year to 31 March 2022 and had Gross Assets of ₹13,925 million (€170 million) at 31 March 2022. The Group will consolidate its earnings and approximately €54 million of net debt through its majority shareholding in RHI Magnesita India Limited, resulting in a marginal increase in gearing at Group level. The acquisition is expected to be accretive to Group earnings per share.

As announced on 13 January 2023, the Group entered into an agreement to acquire a 65% shareholding in Jinan New Emei Industries Co. Ltd, a company registered in China. Jinan New Emei is a well established producer of refractory slide gate plates and systems, nozzles and mixes for use in steel flow control, employing over 1,300 people and headquartered in Shandong province, China. The Group will acquire the initial 65% shareholding for a total cash consideration of around €40 million (CNY 293 million).

On 31 January 2023, the Group, through its listed subsidiary in India, RHI Magnesita India Limited, completed the acquisition of the flow control refractory business of Hi-Tech Chemicals Limited (Hi-Tech) for a total consideration of c.€78 million. The refractory business recorded profit before tax of €8.2 million in the year to 31 March 2022. The acquisition will further strengthen the Group's position in the high-growth market of India, as well as its target market Flow Control. The acquisition will be funded through a combination of intercompany loans from the Group and local bank lending.

The Group spent €65 million in cash on transactions in 2022 and expects to spend a further c.€200 million in cash in 2023 from the transactions announced in late 2022 and early 2023.

The aggregate incremental EBITDA contribution from MIRECO, SÖRMAŞ, Hi-Tech, DBRL and Jinan New Emei is expected to be €25-30 million in 2023. EBITDA synergies of between 30 and 50% of trailing EBITDA are targeted following the full integration of each business into the Group's global network over the next two to three years.

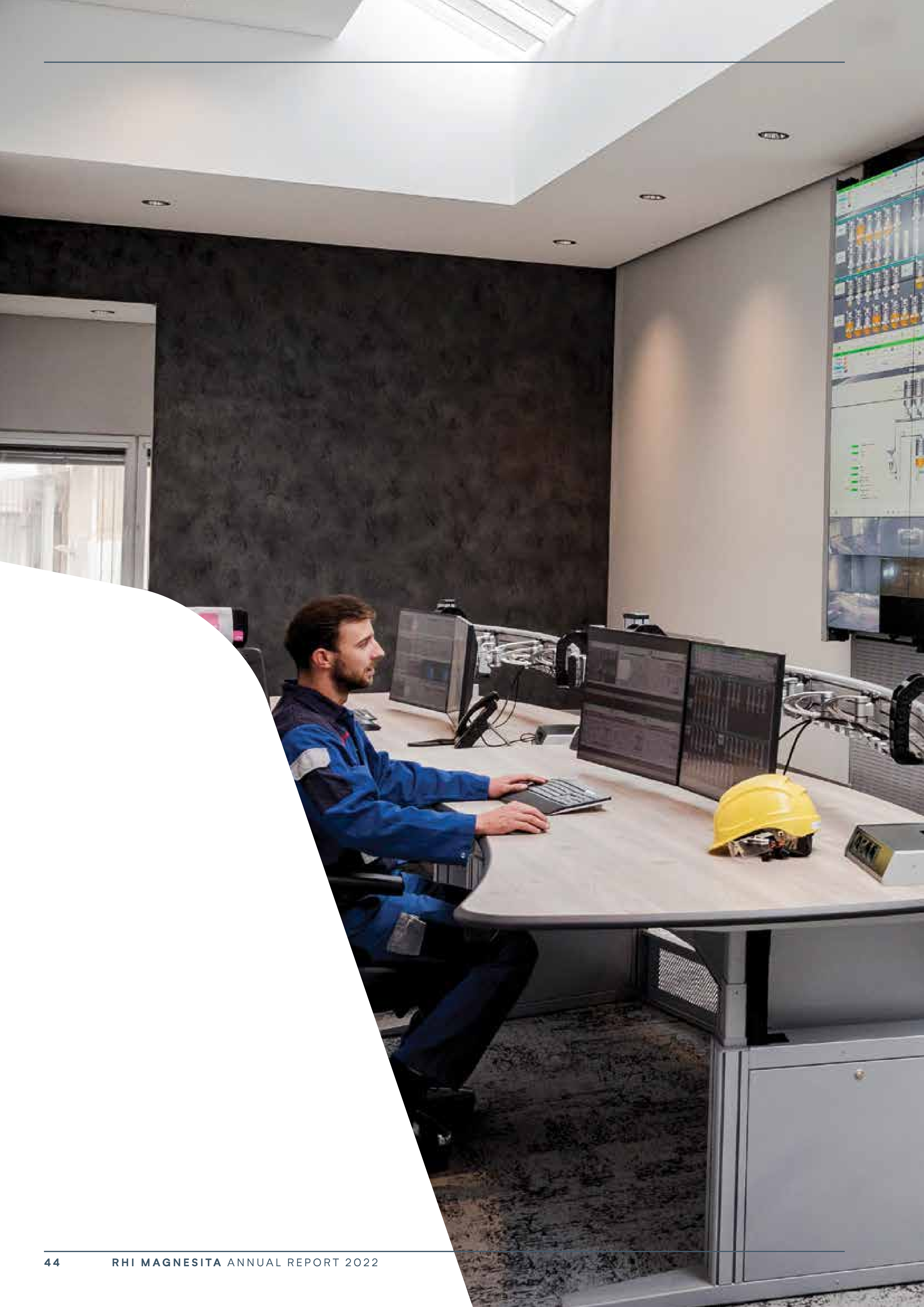
Returns to shareholders

The Board's capital allocation policy remains to support the long-term Group strategy, providing flexibility for both organic and inorganic investment opportunities and delivering attractive shareholder returns over the midterm. These opportunities will be considered against a framework of strategic fit, risk profile, rates of return, synergy potential and balance sheet strength.

The Group spent €79 million on project capital expenditure in 2022, which includes investment towards the Production Optimisation Plan and M&A. In 2022, the Group incurred total capital expenditure of €157 million.

Given the resilient performance of the business in 2022, the Board has recommended a final dividend of €1.10 per share for the full financial year, and €52 million in aggregate. This represents a dividend cover of 3.0x adjusted earnings per share. Subject to approval at the AGM on 24 May 2023, the final dividend will be payable on 6 July 2023 to shareholders on the register at the close of trading on 9 June 2023. The ex-dividend date is 8 June 2023. This represents a full year dividend of €1.60 per share.

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.



Our risk management approach

The Group has an established risk management approach with the objective of identifying, assessing and controlling uncertainties and risks that could impact the delivery of RHI Magnesita's strategy.

Read more on our risk management
Page 46

Effective risk management

Herbert Cordt
Chairman of the Board of Directors

During the year, the macroeconomic environment has increased in complexity and the Group's risk management capabilities have proved to be robust in the face of the challenges presented. However, management's proactive approach to risk management enabled RHI Magnesita to gain insights into risks across our end-to-end value chain. Risk-based mitigating actions supported RHI Magnesita in continuing to deliver products and services to our customers, returns to our investors and a healthy working environment for our employees.

Our approach to risk management

Our risk management efficiency and effectiveness further improved in 2022 by enhancing the Group-wide integrated risk management approach established in 2020. During the third year of this established approach, the Group focused on maturing the risk management framework by further embedding the risk tools, culture and awareness into key areas of the Company. A regionalised risk management approach was further developed with the purpose of providing the Regional Leadership Teams with insights into current and emerging risks and a comprehensive regional risk profile, which is fully integrated within the Group-wide risk management approach.

The risk management approach combines top-down, bottom-up and deep-dive risk assessments. The top-down risk assessment is performed by the EMT and reviewed by the Audit & Compliance Committee and the Board of Directors. Reporting against these risks is included within quarterly EMT meetings, Audit & Compliance Committee meetings and the annual Board-led strategic review. The bottom-up risk assessment is based on each of the operational sites, which maintain ongoing risk management activity linked to the ISO risk management practices.

Deep-dive risk assessments are performed for areas of emerging or prevailing risks, which, in 2022, included capex, plant operations, fraud management and sustainability, including climate-related risks and opportunities. In addition, the Group undertook a series of 'Black Swan Workshops' to develop a framework for the identification and mitigation of high-impact and very low-probability events.

The information from the bottom-up and the deep-dive risk assessments is integrated into the top-down risk assessments to ensure that the Group risk profile is complete and accurate.

Risks and strategy

Our risk management approach helps the Board and EMT to understand the risks associated with the adopted strategy, periodically assess if the strategy is aligned with our risk appetite and

Risk management cycle

5 Reporting
Risks that require immediate action are reported immediately to line management for action. Risks that do not require immediate action are reported periodically to the operational management and on a quarterly basis to the EMT.

1 Identification
Starting from all the possible categories of risks potentially impacting the Group, specific risks relevant to RHI Magnesita are identified through several analytical tools, including comparative analysis and risk benchmarking.

2 Assessment
The risks identified are linked to potential root causes and assessed for their inherent likelihood, inherent impact, and velocity. Risk analysis to develop an understanding of the possible interdependencies between risks is performed.

3 Mitigation
All risks considered to be outside of the Group risk appetite, due to their nature or their potential financial or qualitative impacts, are mitigated by appropriate risk management strategies. The implementation and effectiveness of the defined mitigation measures are reviewed, and additional actions are defined if necessary. For this purpose, risks are assessed based on their likelihood and impact before and after the implementation of those mitigation measures.

4 Monitoring
Risks and associated mitigating measures are reassessed quarterly during the year, with increased frequency for those areas experiencing significant changes in the risk landscape. The remaining risk level is evaluated to ensure that it is aligned with the Group's risk appetite and reviewed on a quarterly basis by the EMT.

understand how the chosen strategy could affect the Group's risk profile, specifically the types and amount of risk to which the Group is potentially exposed. As part of this process, risk scenarios are evaluated to assess potential outcomes.

The assessment, monitoring and mitigation of key risks to the strategy are prominent features of the enhanced approach to risk management adopted in 2020 and further enhanced in 2022. Risk workshops have been conducted with the EMT and Board to review the Group risk profile in the context of the 2025 strategy and the risk appetite of the top risks to the Group. The Group's key financial risks are disclosed under Note 37 to the Consolidated Financial Statements.

Risk appetite

We define risk appetite as 'the nature and extent of risk RHI Magnesita is willing to accept in relation to the pursuit of its objectives'. We look at risk appetite from different angles, such as the severity of the consequences should the risk materialise, any relevant internal or external factors influencing the risk, and the status of management actions to mitigate or control the risk. A scale is used to help determine the risk appetite threshold for each risk, recognising that risk appetite will change over time.

If a particular risk exceeds its risk appetite threshold, it will threaten our objectives and therefore require significant risk mitigation and potentially a change to the strategy. Risks that approach the limit of the Group's risk appetite may require acceleration or enhancement of management actions to ensure that risk remains within appetite levels.

The risk management approach is based on an assessment of the risk appetite formed by the Board, covering the key risk categories ('averse', 'limited', 'moderate' and 'high'). The risk appetite statements are approved by the Board and are a foundational element of our risk framework as they provide guidance to management on the amount and type of risk we seek to take in pursuing our objectives.

Our principal risks

The principal risks are those the Board considers may have a significant impact on the results of the Group and on its ability to achieve its strategic objectives. This does not represent an exhaustive list of risks faced by the Group but encompasses those considered to be most material to business performance.

The risks can occur independently from each other or in combination. Extraordinary events, such as the Russia/Ukraine conflict or global logistic challenges, have the potential to crystallise multiple principal risks simultaneously, significantly magnifying the adverse impact. In 2022, the macroeconomic and geopolitical environment increased the risk management challenges in key areas of the business.

As a response to the current circumstances, continuous monitoring of the Group's risk profile, with specific reference to the potential cumulative impact arising from the crystallisation of risks, was undertaken by the EMT during the year and mitigating actions were taken.

Group risk chart

Impact

Likelihood	low	moderate	high	critical
very likely				
likely			2	1, 10
possible			3, 4, 5, 6, 8, 9	
unlikely			7	

Principal risks 2021		Principal risks 2022
1 Macroeconomic environment	Scope broadened	1 Macroeconomic and geopolitical environment
2 Supplier dependency risk	Deprioritised	– Deprioritised
3 Inability to execute key strategic initiatives	Unchanged	2 Inability to execute key strategic initiatives
4 Significant changes in the competitive environment or speed of disruptive innovation	Unchanged	3 Significant changes in the competitive environment or speed of disruptive innovation
5 Reliability of the end-to-end value chain	Unchanged	4 Reliability of the end-to-end supply chain
6 Sustainability — environmental and climate risks	Unchanged	5 Sustainability — environmental and climate risks
7 Sustainability — Health and Safety risks	Unchanged	6 Sustainability — Health and Safety risks
8 Regulatory and compliance risks	Unchanged	7 Regulatory and compliance risks
9 Cyber and information security risks	Unchanged	8 Cyber and information security risks
10 Ability to predict and pass cost increases to customers	Unchanged	9 Ability to strategically price and deliver price increases
11 Organisational capacity to execute strategy, including demonstrating Company cultural values	Unchanged	10 Organisational capacity to execute strategy, including demonstrating Company cultural values

Unchanged   Scope broadened   Deprioritised

Ten out of 11 principal risks included in the 2021 Annual Report have been confirmed to be equally relevant in 2022. The risks have been reviewed throughout the year, and it has been determined that the principal risk, 'Supplier dependency risk', should no longer be reported as a principal risk. This risk has been deprioritised due to significant progress in finding alternative suppliers for raw material previously sourced from a single supplier. Further, the principal risk 'Macroeconomic environment' was extended to 'Macroeconomic and geopolitical environment' to also cover political unrests, country risks and the energy supply risk.

A comparison against the principal risks of 2021 is highlighted in the table above.

Emerging risks

Identifying emerging risks is a key part of our risk management process. The risks captured by the Regional or Global Risk Dashboards are directly linked to RHI Magnesita Principal Risks which are included in the Annual Report, hence why this is called "Top-Down Risk Assessment". An additional process to identify risks was a workshop with the EMT and Board of Directors assessing black swan events. This exercise resulted in reaffirming emerging risks, reconciled with Principal Risks and the Group Risk Dashboard. Examples include:

- Demand shifts of end-users
- Disruptive regulations for CO_2 reduction
- Regional market tensions
- Disruption of global/regional logistics.

Bottom-Up Risk Assessment are further embedded with the Top-Down perspective to ensure that any emerging risk highlighted is brought to the attention of the regional leadership team and EMT, assessed and potentially included in the Risk Dashboards for monitoring and periodic evaluation.

Risks

Our internal control system

The Board reviews the effectiveness of the system of internal financial, operational and compliance controls and the risk management framework.

RHI Magnesita follows the corporate governance requirements of the regulations of both the Netherlands, given the location of its incorporation, and the UK, given the location of its listing. Where possible, the disclosures are combined in this report, however there are certain risk areas where the respective governance requirements necessitate similar but separate assessments.

One such risk area is the required disclosure and description of RHI Magnesita's control environment and systems. Therefore, the Company provides both a Management 'In-Control Statement' as is required by the Dutch Corporate Governance Code and an internal control system report as is required under the UK Corporate Governance Code. Both outline the measures that RHI Magnesita takes to ensure a strong control environment.

Internal control system

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

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

These systems are based on the three lines of defence model, supported by an end-to-end process model and a delegation of authorities structure reflecting the responsibility for risk management and internal controls at all management levels.

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

The Group has in place a specific risk management approach and an internal control framework in relation to its financial reporting process and the process of preparing the financial statements. These systems include policies and procedures to ensure that adequate accounting records are maintained and transactions are recorded accurately and fairly to permit the preparation of financial statements in accordance with the applicable accounting standards. For the accounting process, an accounting handbook (and related knowledge portal and training) is used to structure the internal controls over the accounting process.

In early 2022, the Group re-structured a number of roles and processes to give more direct ownership and empowerment to five regional leadership teams. The move was made to promote the 'local for local' model, bring decision making closer to the customer and to reflect what was learned from the Group's experiences during the pandemic where fast regional decision making proved pivotal to the Group's high level of resilience. In process areas such as Supply Chain, Procurement, Finance and People & Culture, regional roles were created and formalised to assume responsibilities previously performed in central, typically head office-based functions. Other functions such as IT, Treasury and Tax retained their previous Group-based model. A specific exercise was performed in respect of each process transferred to identify the accountability and responsibility for the modified control framework, ensure that the integrity of the internal control framework was maintained and manage the transition. In Q1 2023, Management will complete a review of the regionalisation model and may enact some refinements based on the observed performance.

In 2022, the Group focused on a series of initiatives to improve the design and performance of key controls (i.e. 'fix the machine room'). Increased capabilities have been established and matured in 2022 by managing the large cross functional transformation projects. These strategic initiatives have impacted the governance of the Company in a positive way by improving the execution through embedding the retained organisation in global project management group that further lead to improve the KPI reporting. These were spearheaded by two Group-wide projects: 'End2End Value Chain' and 'Money Value Stream'. The former has focused on segmenting our customers into nine value chains and delivering global process enhancements and related internal controls which enable the Group to deliver the value desired by our customers. 'Money Value Stream' has addressed 40 work packages across Finance-related global processes to improve the internal control framework in areas such as Planning, Costing, Pricing, Master Data and Operational Steering.

A specialist external review was performed on the 'IT Roadmap' which gave the Board insight into the strengths and weaknesses of the IT underpinning the internal control framework. Increased emphasis will be placed on managing IT architecture in 2023 and maximising the effectiveness with which the IT tools combine to form a global control framework.

The Group has an Internal Audit function, with a reporting line to the Chairman, Audit & Compliance Committee and a secondary reporting line, for day-to-day operational matters, to the CFO. The Internal Audit function provides assurance to the Audit & Compliance Committee and the Board on the design and effectiveness of the internal control framework. Internal Audit operates within a single department also comprising Risk Management and Compliance. The Audit & Compliance Committee and management ensure that appropriate safeguards are in place to maintain the independence of Internal Audit. The Internal Audit, Risk and Compliance function is structured into regional teams providing a locally focused governance presence to support regional management in line with the established Group-wide objectives.

During 2022, a highly experienced Ernst & Young partner, with Risk Management (CRMA) and Internal Audit (CIA) accreditations, was engaged under a 12-month outsourced contract to provide Head of Internal Audit services. This change was made by the Audit & Compliance Committee to enable the previous Head of Internal Audit, Risk & Compliance to lead the 'Money Value Stream' project. Risk & Compliance was overseen by the regional Heads of Finance in 2022. The Audit & Compliance Committee have closely monitored the results of this arrangement throughout 2022 to ensure that the independence of Internal Audit and the effectiveness of Risk Management and Compliance have not been compromised. It is anticipated that the 2021 operating model of Internal Audit, Risk & Compliance will be restored in early 2023.

An External Quality Assessment of the effectiveness and capability of the Internal Audit function was performed in 2021. The delivery of improvement points from this report has been completed. An internal effectiveness review of Internal Audit was performed in 2022.

During 2022, Internal Audit conducted 19 planned internal audits and one special investigation, reporting the most relevant observations and recommendations to the Audit & Compliance Committee.

The reports by management and Internal Audit, Risk and Compliance also facilitated consideration by the Audit & Compliance Committee of management actions in respect of the following key control framework challenges:

- Improving internal controls over inventory management and processes.
- Increasing oversight and effectiveness over investments, fixed assets and projects.
- Supporting continuous operational efficiency and control environment at sites and contract service's locations.
- Strengthening the Customer Service Representatives based on a centralised organisational set-up.

The Board considers the Company's risk management and internal control system are appropriate and effective to give reasonable, but not absolute, assurance against material misstatement or loss. Improvements on the internal control systems implemented and planned have been discussed regularly between the Board and Audit & Compliance Committee. The Board welcomed the internal control system improvements delivered in 2022 by projects such as 'Money Value Stream'. However, given the dynamic nature of the Group and the continuing evolution of the regionalisation model, the Board emphasises the importance of further internal control system improvements in 2023, most notably the completion of global process standardisation work to drive a potential medium-term new ERP system implementation.

Management 'In-Control Statement'

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

The core design of the internal control systems is based on extensive work conducted as part of the merger activity in 2017 and reassessed in 2020 to create a more regionally focused and agile structure. The regional focus was further increased in early 2022. Dedicated teams examined each process area and re-designed the accountabilities and responsibilities in areas including Supply Chain, Procurement, Finance and People & Culture to significantly increase regional ownership. Global processes were enhanced by the two Group-wide transformation projects — 'End2End Value Chain' and 'Money Value Stream'. A further step change in process standardisation is expected in 2023 with the process level foundational work ahead of a medium term ERP implementation.

The key internal control measures include reviews of financial performance and key control weaknesses at each Board meeting.

To complement the regionalisation and to increase the focus on performance, financial reporting and internal controls, a new corporate meeting structure was introduced in 2022. Regional leadership team meetings now review regional delivery against strategy and financial performance each month. These outputs are consolidated in a standard format into a two-day EMT member-led Monthly Performance Review (MPR) meeting to review operational financial performance, strategy delivery and control weaknesses primarily with a regional focus but also including Group functions on a rotational basis. The EMT monthly meetings have now been re-focused to primarily consider high-level and Group-wide strategic matters and those matters reserved for EMT approval in the Delegation of Authorities.

A dedicated project supported by external experts reconsidered the zero-based business planning process, with particular focus on Selling, General and Administrative expenses. The EMT continues to monitor the effectiveness of the adoption of corporate culture and values especially to the more remote areas of the Company — the enhancement of the corporate culture has been accelerated by the regional approach. The Code of Conduct will be updated in early 2023 and reinforced through increased training and communication. The Board and EMT monitor the response to issues raised via the whistleblowing process. All key changes in the internal control framework were reviewed by the EMT.

Each leader is accountable for the effectiveness of the internal controls within their areas of responsibility and is required to complete a self-certification of their assessment. For 2022, the self-certification is signed-off on a regional level. Measures are applied in each functional area and region to assess the effectiveness of internal controls and to escalate any identified issues. Control weaknesses identified by management and those identified through the quality management system reviews, risk management activity and internal audit reports are escalated to the EMT for review and resolution, all of which is overseen by the Audit & Compliance Committee. The key control weaknesses identified from these processes were addressed within 2022. The key theme of the 2022 leadership conference was task execution and the importance of leaders setting the tone for the consistent performance of key controls.

In 2022, risk management activity continued to focus on increasing the depth of the assessment of the top 20 Group risks and on the set-up of consistent reviews to monitor the evolution of such risks by the EMT, to review the Group risk profile on a quarterly basis and to take any additional mitigating action. Plant risk management and fraud risk management were executed in 2022 following the established approaches. This approach continued to further strengthen the link between strategy setting and risk management enhanced by extensive collaboration between the respective teams.

The improvements in the risk management approach, the milestones achieved, the results of the internal quality assessment and planned next steps were reviewed by the Audit & Compliance Committee. In addition, the risk appetite was discussed and approved by the Audit & Compliance Committee and the Board following a series of discussion workshops.

During 2023, the focus will be on enhancing risk management approaches within the regions and ensuring consistency and alignment between the regional areas of focus and those primarily addressed by group functions.

Viability statement

The Directors have a reasonable expectation that the Group and Company will be able to continue in operation and meet its liabilities as they fall due over the period to December 2025.

Assessment period

In accordance with provision 31 of UK Corporate Governance Code, the Board has assessed the prospects and the viability of the Group over a longer period than the 12 months required by the 'Going Concern' provision. The Board assesses the business over a number of time horizons for different reasons, including the following: one-year detail financial plan (i.e. 2023) and the long term plan to 2025. The Board believes that three years, assessment period remains appropriate. It is based on management's reasonable expectations of the position and performance of the Group over this period, it's internal budget and planning timeframes, and the targets and aims that it has set out.

The assessment process and key assumptions

The Board assessment included the review of the potential financial impact of, and the financial headroom that could be available in the event of, the most but plausible scenarios that could threaten the viability of the Group. The assessment took into consideration the current financial position of the Group and the potential mitigations that management reasonably believes would be available to the Company over this period.

Mitigations considered include the use of cash, access to debt facilities and credit lines, reductions in capital expenditure, divestments and dividend reductions.

The financial forecast is based on a number of key assumptions, the most important of which include product prices, exchange rates, raw material, energy, freight and labour costs, estimates of production volumes, future capital expenditure and delivery of our strategic cost reduction and sales initiatives. All scenarios consider the acquisitions of Dalmia and Hi-tech completed in early 2023. In addition, the forecast does not assume the renewal of existing debt facilities or raising of new debt. A key component of the financial forecast and strategic plan is the expected growth of steel production and the output of non-steel clients in all regions, combined with the development of the specific refractory consumption taking account of technological improvements.

Management also performed a reverse stress test assuming a severe decrease in sales volumes of 18% sustained over 15 months. Management analysed the impact of 2008 global financial crisis and the COVID-19 impact over sales volumes and margins. Whilst the decrease in volumes was notable in those events, the Group rapidly recover the volumes over the next 12 months.

The scenarios that have been modelled are based on severe but plausible outcomes and associated costs are based on actual experience where possible. The scenarios have been considered individually and as a cluster of events.

Scenario	Principal risks	Severity of the impact
Severe macroeconomic downturn	1. Macroeconomic and geopolitical environment.	Low
Severe macroeconomic downturn with impact of multiple principal risk	1. Macroeconomic and geopolitical environment. 2. Inability to deliver strategic projects. 3. Significant changes in the competitive environment or speed of disruptive innovation. 4. Reliability of end-to-end supply chain. 5. Organisational capacity to execute strategy, including demonstrating company cultural values.	Medium
Reverse stress test assuming significant sustained reduction in sales volumes	1. Macroeconomic and geopolitical environment.	High

Assessment of viability

The Group's liquidity amounts to €1,121 million comprising cash and cash equivalents of €521 million and undrawn committed credit facilities of €600 million as of 31 December 2022. This is sufficient to absorb the financial impact of the risks modelled in the stress and sensitivity analysis. However, if these risks were to materialise, the Group also has a range of additional mitigating actions that enable it to maintain its financial strength, including reduction in fixed costs and capital expenditure, raising debt or reducing or cancelling the dividend.

Viability statement

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

The Directors have a reasonable expectation that the Group and Company will be able to continue in operation and meet its liabilities as they fall due over the period to December 2025.

Going concern

In assessing the appropriateness of the going concern assumption over the period to 31 December 2024 (the 'going concern period'), management have used the viability assessment to conclude on going concern assumption. Management stress-tested RHIM's most recent financial projections to incorporate a range of potential future outcomes by considering RHIM's principal risks, further potential downside macroeconomic conditions and cash preservation measures, including reduced future operating costs, capital expenditure and dividend distributions. This assessment confirmed that RHI Magnesita has adequate cash and undrawn credit facilities to enable it to meet its obligations as they fall due in order to continue its operations during the going concern period. Therefore, the Directors consider it appropriate to continue to adopt the going concern basis of accounting in preparing the Consolidated Financial Statements.

Risks

Principal risks

Link to strategy

Business model | Competitiveness | Markets

Appetite

High | Moderate | Limited | Averse

1. Macroeconomic environment and geopolitical risk

Link to strategy

Target risk appetite

KPIs

Revenue, Adjusted EBITA Margin, Adjusted EPS, ROIC

Internally monitored metrics

Key macroeconomic and financial market indicators, steel and cement forecasted production.

Risk description

Changes in the global economic environment, financial markets conditions and adverse geopolitical developments may have an impact on the Group's revenue and profitability.

The macroeconomic environment changes leading to sales volume reductions can arise from industrial factors or from wider global issues, such as a global economic downturn or global logistic challenges.

The demand for refractory products is directly influenced by steel, cement and non-ferrous metal production, metal and energy prices and the production methods used by customers.

Due to the Group's cost structure, fluctuations in sales volumes have an impact on the utilisation of production capacities and consequently on the Group's profitability.

Examples of specific risks:

- Decreasing investment in customers' infrastructure projects (therefore reducing steel and cement demand) leading to lower refractory consumption and depressed sales volumes.
- Customers focusing on lower-cost and more commoditised refractories.
- Lower sales volumes leading to lower fixed cost absorption.
- Increasing prices of core resources and supplies (e.g. energy, freight, packaging)
- In 2022, geopolitical factors also led to an emerging risk of gas shortages, significantly impacting European production.

Risk mitigation

- Initiatives to increase the Group's resilience, through establishing leaner processes and lower fixed cost structures (such as the production network optimisation), whilst increasing the Group's market share and the value for our customers.
- Diversification of geographies and industries.
- A range of measures were enacted to reduce the Group's reliance on natural gas, particularly within Europe.
- Enhanced awareness campaign to highlight the impact that a restriction on gas supplies would have on the refractory sector.
- Close monitoring of production costs fluctuations to guarantee the expected profitability.
- Price increase initiative to pass inflationary costs to customers.
- Early leading indicators to ensure identification of emerging macroeconomic trends.
- Treasury Policy and usage of financial instruments to mitigate risk exposure to financial markets.

Risk movement

During 2022, the macroeconomic environment was highly volatile. The refractory market, together with most other sectors, experienced a drop in customer demand as a result of broader economic risk factors such as higher inflation levels and interest rate fluctuations.

Events such as the Russia/Ukraine conflict created higher risks relating to the cost and supply reliability of energy, specifically natural gas.

Disruption in the global logistics mechanisms, whilst less significant than in 2021, still presented a material risk.

The risk appetite remains high (no changes from 2021). The risk score is within the risk appetite but has the potential to exceed it and is closely monitored.

2. Inability to execute key strategic initiatives

Link to strategy

Target risk appetite

KPIs

Voluntary Employee Turnover, Revenue, Adjusted EBITA Margin, Adjusted EPS, Leverage, ROIC

Internally monitored metrics

Adjusted EBITA from strategic initiatives, ROIC from strategic initiatives, completion of strategic initiatives on-time and on-budget.

Risk description

The Group's strategic initiatives include sales expansion, new product and service models, production network optimisation, digitalisation and M&A projects.

Effective prioritisation and execution are key to delivering the Group strategy. The ambition level of these initiatives requires a high level of management capacity to effectively deliver change management and strategic initiatives execution.

The failure to effectively execute these initiatives because of external or internal circumstances may lead to lower than planned financial performance, including loss of revenue and margin.

Examples of specific risks:

- Failure to develop the strategy into specific actions.
- Failure to react in a timely manner to a changing environment.
- Failure to effectively deliver projects.
- M&A underperformance.
- Inability to fully realise benefits from capex investments.

Risk mitigation

- Group-wide strategy with a high focus on key priorities.
- Postponement or cessation of strategically non-important projects.
- Strengthening of project management culture and approach.
- Leadership capability enhancement programme.
- Deep dive learning-based review on each strategic initiative.
- Learnings from capex projects through post-implementation reviews.
- Increased focus on the risk-based assessment of potential capex investments and enhanced financially based tracking during the capex project delivery phase.

Risk movement

During 2022, the macroeconomic environment and associated risks have intensified. Given the inherently challenging nature of the Group's strategic projects, this has significantly increased the complexity of execution of key strategic initiatives.

This is particularly visible within capex execution, which is currently outside of the risk appetite due to challenges on managing resources.

The Group recognises the rapidly evolving difficulties associated with managing capex investments and remains focused on optimising the planning and execution to reduce the level of risk back to within the risk appetite.

Considering that the principal risk covers a broad range of strategic initiatives including recycling and M&A projects, the overall risk score remains within the risk appetite, but requires close monitoring

3. Significant changes in the competitive environment or speed of disruptive innovation

Link to strategy

Target risk appetite

KPIs

Revenue, Adjusted EBITA Margin, Adjusted EPS, ROIC, R&D & Technical Marketing Spend

Internally monitored metrics

R&D & Technical Marketing spend, ROIC on such spend and time-to-market, sales of digital products, cost saving generated by usage of digital technologies.

Risk description

The Group has a digital strategy that focuses on using digital products to grow its revenue and margin, digitalisation of operations, and other internal processes. In 2022, this was an area of significant management focus, which enabled the Group to progress in its digital transformation journey.

Depending on the ability of the Group to develop adequate products and services, the changes in customers' preferences towards innovative products may present either an opportunity or a threat by increasing pressure on demand and margins.

The speed of evolution of customer demand for environmentally beneficial features, digitalisation and services may be faster than the pace of implementation of the Group's digital strategy.

Examples of specific risks:

- Disruptive product technology introduced by a competitor.
- Failure to identify digitalisation trends and technologies.
- Competitors being faster and more agile in responding to changing customer requirements.

Risk mitigation

- Create a climate that fosters innovation and 'out of the box' thinking.
- Significant focus on and investment in digitalisation to bring more digital products to market and to enhance internal processes through digitalisation.
- Continued investment in R&D, including, importantly, on sustainability in line with the Group's strategy.
- Focus development activity on projects aimed at an agile and fast impact on the market.
- Monitoring of key R&D and innovation metrics.
- Partnering with third-party innovation leaders.

Risk movement

The Group conducted a review of all strategic projects, including digitalisation and R&D-based projects. These projects were refocused and reassessed. Further changes to the strategic management department are planned in 2023 to ensure the Group remains competitive.

The risk remains within the risk appetite and is consistently monitored.

Principal risks
continued

Link to strategy

Business model · Competitiveness · Markets

Appetite

High · Moderate · Limited · Averse

4. Reliability of the end-to-end supply chain

Link to strategy

Target risk appetite

KPIs

Revenue, Adjusted EBITA Margin, Adjusted EPS, ROIC

Internally monitored metrics

Refractory lead times, plants' capacity utilisation, supply in full on time, Inventory levels, customer surveys.

Risk description

The journey from raw material to finished goods can span several months and might require shipments across the globe. The ability to react quickly to changes prompted by internal and external factors is therefore key to ensuring value delivery to our customers.

In addition, the ability to forecast the demand for the Group's product is key to enabling efficient and effective planning of production-related activities, including procurement and inventory planning.

Our global operations can be disrupted by issues in a specific geography or by industry-wide challenges. However, the ability to transfer some of the production between geographies to mitigate the risk of business interruption can be deployed as a risk mitigation strategy.

Examples of specific risks:

- Global logistics challenges impacting the stability, speed and cost of our end-to-end supply chain.
- Production interruption at a single-source manufacturing site.
- Inability to accurately predict customer demand leading to missed sales opportunities, inefficient production planning and additional costs.
- A natural disaster or major political crisis in one or more countries or regions.

Risk mitigation

- Recurring supply chain initiatives to improve and address specific operational challenges.
- Regular reviews of sales, production and financial plans, as well as longer-term portfolio decisions, are based on extensive research.
- Additional people and system resources leading to improvements in delivery reliability and reduction of production backlog.
- Operational risk management and maintenance policies.
- Geographical diversification of the production network.
- Implementation of an optimised production footprint to meet planned requirements.
- Risk-based investment policy.
- Global insurance coverage.
- Focus on the minimisation of sole-source materials and strategically increasing stock levels.
- Concentrated efforts on increasing transparency and enhancing the communication flow.

Risk movement

During the beginning of 2022, the global end-to-end supply chain environment, in terms of costs and availability, has deteriorated for the entire refractory industry. This weakening was mainly driven by COVID-19 lockdowns, the Russia/ Ukraine conflict, and inflationary markets. Consequently, the Group faced difficulties in the supply chain and production management.

However, in the second half of 2022, the external logistic situation became more stable and internally the Group managed to improve its visibility over the dynamics of the logistics industry.

Therefore, the overall risk level reduced, and the risk is back within the risk appetite.

5. Sustainability — environmental and climate risks

Link to strategy

Target risk appetite

KPIs

Relative CO_2 emissions, use of secondary raw material, Revenue, Adjusted EBITA Margin, Adjusted EPS, ROIC

Internally monitored metrics

Relative CO_2 emissions, use of secondary raw material, progress towards the achievement of environmental and climate targets.

Risk description

Controlled emissions and use of potentially hazardous materials are inherent to the production of refractory products.

The risk of failing to meet environmental regulatory targets or uncontrolled emissions at our production sites exists and may result in high financial losses and liabilities.

The evolving regulatory environment, the increased stakeholders' focus, and the Group's commitment to sustainability led to increasing investment and effort being dedicated to achieving environmental and climate goals.

There are future environmental and climate targets that can only be met by new technological solutions to change the Group's production processes and by the delivery of environmental improvements by the Group's suppliers and customers.

Examples of specific risks:

- Uncontrolled emissions.
- Inability to meet sustainability targets.
- Failure in meeting stakeholder expectations.

Risk mitigation

- Regular environmental audits and risk monitoring at all sites.
- Well-established Board-level Corporate Sustainability Committee (CSC) to oversee and challenge management's environmental and climate strategy.
- We manage, measure and report our climate- related risks and opportunities according to the Task Force on Climate-related Financial Disclosures (TCFD) recommendations (as described on **pages 89 to 93**).
- A climate strategy focused on recycling, carbon capture and usage, fuel switch, energy efficiency, and innovative customer solutions. Read more in Tackling Climate Change on **pages 64 to 70**.
- Increased focus on the use of secondary raw material as a core element of the Group's strategy.
- €9 million investments in the next three-year R&D programme to pilot new sustainable production technologies.
- The geographical diversity of the Group's operations and the ability to shift production reduce the possibility of single events impacting specific geographies.
- Increased focus on sustainable procurement. Executive long-term incentive plan (LTIP) and Employee Bonus linked to achievement of the Group's CO_2 reduction and recycling targets.

Risk movement

The inherent likelihood of this risk has slightly risen due to the increasing regulatory complexity and rising stakeholder expectations, as for example with the implementation of the CBAM starting in 2026. If the CBAM would fully be implemented by 2026 for the refractory industry, it could create a significant impact. Therefore, the potential impacts, including reputational and financial, of this risk crystallising have increased.

The medium-term R&D programme focused on sustainability improvement initiatives continued during 2022.

In addition, a range of additional risk-mitigating measures were implemented during the year. These include the achievement of the Group's CO_2 target in the employees' bonus criteria, maintaining the 'Gold' ESG EcoVadis rating, an A- rating for Carbon Disclosure Project (CDP) and the increased focus on sustainable procurement.

The risk is within the Group's risk appetite and is continuously monitored by management.

6. Sustainability — Health and Safety risks

Link to strategy

Target risk appetite

KPIs

LTIF, Revenue, Adjusted EBITA Margin, Adjusted EPS, ROIC

Internally monitored metrics

Total Recordable Injury, LTIF, Severe Lost Time Injuries, Near Misses, Preventive Ratio, Unsafe Situations.

Risk description

Employees and contractors may be exposed to Health and Safety (H&S) hazards in our plants that cannot be completely eliminated.

Our activities and products may potentially cause accidents at our customers' sites.

Beyond the harm to individuals, H&S incidents can lead to high financial penalties, site closure and a loss in reputation for the Group.

Considering the nature of the industry and the ongoing context of a pandemic, the health of our employees and contractors is a significant area of risk to the Group.

Examples of specific risks:

- Fatal or serious accident at manufacturing or customer site.
- Site closure due to H&S incidents.
- Loss in reputation for the Group due to H&S incidents.

Risk mitigation

- H&S objectives are defined as a core Company objective, and the performance is constantly monitored.
- H&S approach is based on leading global standards and practices, including regular risk monitoring, emphasis on 'near miss' reporting and root cause analysis.
- Focus on collaboratively enhancing the H&S approach at customer and supplier sites.
- Continued investment in H&S improvements in our plants.
- Regional COVID-19 taskforces are established to prevent and manage pandemic-related risks at our sites and facilitate access to vaccinations.
- Specific action plans in the event of employee or contractor health issues.
- Globally harmonised safety instruction videos.
- Global personal protective equipment (PPE) standards implemented.

Risk movement

The risk level remains the same as in 2021 due to the continuing risk impact of the COVID-19 pandemic and the inherent Health and Safety risk of the refractory industry. Several measures to protect the health of our staff are in place to address local risks posed by COVID-19. Protecting the health of our staff continues to be a priority.

Safety remains a top priority for the Group with continued focus, investment and management efforts.

The overall H&S risk is evaluated to be within the Group's risk appetite and is constantly monitored to ensure that any necessary action is taken promptly.

Principal risks continued

Link to strategy

Business model · Competitiveness · Markets

Appetite

High · Moderate · Limited · Averse

7. Regulatory and compliance risks

Link to strategy

Target risk appetite

KPIs

Revenue, Adjusted EBITA Margin, Adjusted EPS, ROIC

Internally monitored metrics

Completion rate of various internal compliance trainings, whistleblowing reports, data privacy incidents

Risk description

The Group faces increasing regulatory complexity and operates in some geographies with inherently high corruption risks. We strive to establish a culture of compliance throughout the organisation.

We are exposed to regulatory and compliance risks that may result in financial losses or operational restrictions.

Regulatory changes could impact the profitability of our operations and require investment to achieve compliance.

Examples of specific risks:

- Failure to act in accordance with our Code of Conduct.
- Violation of anti-corruption laws by employees or third-party representatives.
- Violation of data privacy regulations.
- Violation of sanctions and export controls regulations.

Risk mitigation

- Ethical values supported by strong corporate culture.
- Code of Conduct and compliance policies and procedures.
- Enhancement of global training, documentation of compliance matters and communication.
- Various whistleblowing channels are available to employees and external parties to report compliance concerns. Concerns can also be reported anonymously, and all reports are followed up by qualified professionals.
- Specific high-level multi-function working group established to manage risks associated with Russia/Ukraine conflict.

Risk movement

In 2022, the complexity and scale of the various sanctions regimes markedly increased. This particularly impacted the Group's operations in Russia. The inherent risk of sanctions violations increased due to global geopolitical instabilities. Having a clearly defined and embedded process to monitor existing sanctions regulations and continuously screen new ones, the residual risk level remains unchanged compared with previous year. Furthermore, the focus on key compliance risks has continued, enhanced by trainings, and targeted compliance communications. Significant milestones to strengthen preventative measures were achieved with the delivery of core compliance policies, guidelines, and training.

The overall risk level remains, is within the Group's risk appetite but requires close monitoring. The risk continues to be monitored by management.

8. Cyber and information security risks

Link to strategy

Target risk appetite

KPIs

Revenue, Adjusted EBITA Margin, Adjusted EPS, ROIC

Internally monitored metrics

Security incidents classified by severity, phishing test fail rates, triage escalation time.

Risk description

The Group's reliance on IT systems and the greater focus on digitalisation result in a growing exposure to cyber and information security risks.

The possible impact of cyber and information security risks could range from operational disruptions, loss of intellectual property, legal compliance issues, frauds, to significant reputation losses.

Examples of specific risks:

- Intellectual property or confidential data theft.
- Personal data breach.
- Software or hardware failure leading to critical business process interruption.
- Cyber-attacks on office and production IT leading to financial losses e.g. ransomware, sabotage.

Risk mitigation

- Global information and cyber security policies in line with information security best practices, standards and frameworks.
- Continuous awareness campaigns and training.
- Regular risk assessment and penetration testing.
- Cyber security detection and response team.
- Network, device and application protection.
- Audit & Compliance Committee oversight and specific focus on cyber security-related controls.
- Email security (phishing and malware protection).
- Operations Technology (OT) security monitoring to protect our production.
- Security oriented approach when integrating newly acquired companies.

Risk movement

The Group experienced a continued increase in the inherent risk level of cyber and information security risks due to the fast-evolving cyber and information security global landscape.

The Group continued to implement additional risk-mitigating measures to respond to this rising threat, including awareness campaigns, data encryption and OT security monitoring. Due to a continuous and strong development of several mitigation measures, the overall residual risk score remained unchanged from 2021.

The risk was evaluated to be within the Group's risk appetite and closely monitored to enable fast to drive fast responses to changing external threats.

9. Ability to strategically price and deliver price increases

Link to strategy

Target risk appetite

KPIs

Revenue, Adjusted EBITA Margin, Adjusted EPS, ROIC

Internally monitored metrics

Price increase realised, price fulfilment, leading cost indicators.

Risk description

The Group is exposed to increases in its variable costs such as raw materials, energy, logistics and labour costs. In 2022, some of these costs increased materially due to global factors.

To achieve the Group's margin targets, it is crucial that rising costs are identified early through the monitoring of leading indicators and that these are effectively passed on to the Group's customers.

The Group can suffer significant financial loss should these costs not be fully passed on in a timely manner whilst preserving customers' relationships and our market share.

Examples of specific risks:

- Inability to identify early signs of increases in the variable costs.
- Inability to effectively negotiate price increases with customers.

Risk mitigation

- Consistent monitoring of leading indicators to identify early signs of externally driven cost inflation.
- Management focuses on effectively negotiating price increases with customers without compromising relationships and market share. These efforts targeted the delivery of price increases of €354 million in 2022, relative to December 2021 and €600m relative to the average of the year.
- Close management monitoring of progress towards price increase implementation.
- Mitigation energy cost increases through a combination of strategies, which include energy hedging, alternate fuel supplies and energy supply guarantees.

Risk movement

2022 was characterised by an increasing inflationary cost environment, especially for energy, freight, and labour.

A range of risk-mitigating measures were implemented in 2022, which included the successful delivery of price increases as well as the enhancement of leading indicators that improve future visibility and enable effective decision making.

The significant progress made in risk mitigation ensures this outlook is within the Group's risk appetite. Lead indicators and mitigation methods are continually monitored by management to enable a fast reaction to additional changes in external costs. Focus remains on structural process improvements to enhance visibility over internal and external costs changes.

10. Organisational capacity to execute strategy, including demonstrating Company cultural values

Link to strategy

Target risk appetite

KPIs

Gender diversity in leadership, Voluntary Employee Turnover, Adjusted EBITA, Adjusted EPS, ROIC

Internally monitored metrics

Gender diversity in leadership, Voluntary Employee Turnover, Adjusted EBITA from strategic initiatives, ROIC on strategic initiatives.

Risk description

The Group places a high emphasis on pragmatism, openness, performance, customer centricity and innovation as core behaviours within its corporate culture. The embedding of the Company culture is a continuous journey and leadership is pivotal to enhancing the Group values across geographies and departments. Our values of accountability and responsibility are key to promptly communicating and addressing issues to enable a fast and reliable execution.

The Group's corporate culture, combined with an optimal internal structure, adequate skills and resources, are key to ensuring the delivery of the Group strategy. To ensure access to adequate skills, the Group is focused on being able to retain talent as well as attract talent from the market.

A key focus of the Group's corporate culture is gender, ethnic and generational diversity, which is seen as an important driver to enhance performance.

Examples of specific risks:

- Inconsistent behaviour across the Group.
- Lack of accountability and responsibility.
- Inability to attract and retain top talent.

Risk mitigation

- Continuous emphasis on the Company culture as a key enabler of performance and driver of strategy execution.
- In 2022, a review of the Group's flexible working policies and increased range of tools to support remote working.
- Range of other awareness-based leadership training and initiatives to support the attraction and retention of 'Generation Z' talent.
- Dedicated leadership capability enhancement programme.
- 'Tone from the Top' leadership culture.
- Developing talent, enhancing diversity and promoting Company culture as significant components in the People Cycle.
- Trainee programme to develop graduates into future leaders.

Risk movement

During 2022, the changes seen in the global human resource landscape (arising from COVID-19 and related factors) have impacted the Group in several geographies (particularly North America and Europe). Therefore, it required management to focus to enhance risk mitigation actions. As a result, the Group has managed to maintain the retention and attraction rates at satisfactory levels. The Group has increased its leadership level and project management skills, and therefore mitigated the increasing complexity to manage the Group's operations, projects, and strategic initiatives in a context of increasing global challenges.

The overall risk has slightly decreased but still requires management focus to enhance risk mitigation actions to bring the risk within the Group's risk appetite.

Building a sustainable future

The ongoing geopolitical conflicts, rising of energy insecurity and worsening physical consequences of climate change require business resilience and active engagement towards a sustainable transition.

Read more on our CEO review
Page 12

Recycling rate

10.5%

2021: 6.8%

RHI Magnesita has developed proprietary technology for increasing the use of secondary raw materials with no loss in refractory performance. This reduces customer waste and eliminates CO_2 emissions which would otherwise be released in the mining and processing of new raw materials. In 2022 the Group launched its new recycling and decarbonisation joint venture in Europe, MIRECO.

Reduce carbon intensity by

8%

in comparison to 2018 baseline year. RHI Magnesita is taking steps to reduce the carbon intensity of its energy sources by switching to more CO_2 efficient options and increasing the use of renewable energy.

Product carbon footprint

No.1

RHI Magnesita is leading the refractory industry by providing transparency on the CO_2 footprint of every product. This enables our customers to make the right choices to reduce their own Scope 3 emissions from the consumption of refractories.

Sustainability

Introduction

> We continue to take pride in our leadership position in sustainability. Positioning the Group's products and services ahead of sustainability driven technological change in our customer industries will be essential for long term success, while we are also working hard to improve the sustainability profile of our own business.

Herbert Cordt
Chairman

Our purpose

RHI Magnesita's purpose is to master heat, enabling global industries to build sustainable modern life. Our advanced products are essential for our customers in the steel, cement, metals, glass, energy and chemicals industries. Through the reliable supply of innovative refractory products and services, we enable our customers to sustainably deliver the basic materials that are essential for modern life. We aim to be our customers' partner of choice on their own decarbonisation journeys.

Our sustainability strategy

We strive to be a sustainability leader in our sector. Our sustainability strategy is aligned with and based on the ten Principles of the UN Global Compact (UNGC) covering human rights, labour, environment, and anti-corruption. RHI Magnesita's sustainability strategy is focused on:

- Excellent performance in Health & Safety.
- Climate change mitigation actions.
- Increased use of secondary raw materials to reduce CO_2 emissions.
- R&D investment to develop emissions avoidance, alternative fuels, and carbon capture, storage and utilisation technologies
- Partnering with our customers to reduce their emissions through innovative refractory products or heat management solutions.
- Building market share in segments that are essential to the transition away from fossil fuels in our customer industries e.g. EAF, direct reduction, electrolysis.
- Sustainable procurement practices.
- Upholding diversity in the workplace.
- Minimising environmental impacts.
- Building strong relationships with all stakeholders including communities, employees and governments.
- Linking debt facilities and management compensation to sustainability performance.

Our 2025 targets

Our 2025 sustainability targets were defined in 2019 based on engagement with internal and external stakeholders, which identified the following areas of materiality for our business: CO_2 emissions, Energy use, recycling, Diversity, Health & Safety, NOx and SOx emissions. These topics were reconfirmed on a materiality analysis realised at the year end of 2022. The results of this analysis will be the base to update the existing targets, and to set up new targets." More details can be seen **here** on our website.

Standards, frameworks and reporting

RHI Magnesita is committed to leading sustainability standards and frameworks. In the period from 01.01.2022 — 31.12.2022, we reported in accordance with GRI Standards. As a supporter of the Taskforce on Climate-Related Financial Disclosures (TCFD), we have identified and quantified the climate-related risks and opportunities. We submitted annual climate reports to CDP in 2022 and scored an A- rating, which is in the Leadership band. In accordance with the EU taxonomy,we report the proportion of our revenue, operating expenditure and capital expenditure for FY 2022 that are taxonomy-non eligible, eligible and aligned. Our integrated management system is compliant with ISO 14001 (environmental), ISO 50001 (energy), ISO 45001 (occupational health and safety) and ISO 9001 (quality). We also report our gender diversity progress to the FTSE Women Leader Review each year.

We are fully committed to open and transparent reporting. As a signatory of the UNGC since 2018, we report annually on our progress, engagement and contribution to the UN Sustainable Development Goals (SDGs), that are most relevant to our business operations. This report acts as our Communication on Progress.

This non-financial report covers all activities, sites, and industrial assets operated or contractually managed by RHI Magnesita N.V. or one of its subsidiaries.

RHI Magnesita commissioned Deloitte Audit Wirtschaftsprüfungs GmbH for an independent third-party limited assurance engagement on the non-financial report for the year ended 31 December 2022, according to Dutch transposition of the NFI-Decree, the Taxonomy Regulation ((EU) 2020/852) and GRI Standards. Please click **here** for more details on the assurance process and conclusions.

Contribution to SDGs

We support the UN Sustainable Development Goals ("SDGs") and have identified these as the goals our business is best placed to actively support.

Our 2025 targets

Material issue	Targets by 2025 vs 2018 baseline year	Progress in 2022		2018	2019	2020	2021	2022	SDG
1. CO_2 emissions	Reduce by 15% per tonne of product — Scope 1, 2, 3 (raw materials)	CO_2 intensity has been reduced by 8.0% versus the 2018 baseline year. Recycling has outperformed. At Ponte Alta raw material production site in Brazil, a successful switch away from petroleum coke to sustainable sourced charcoal has delivered 18kt of annualised CO_2 emission savings.	Absolute (t CO_2)[1]	5.483	4.702	4.297	5.050	4.196	13
			Relative (t CO_2/t)[2]	1.90	1.89	1.97	1.85	1.75	
2. Energy	Reduce by 5% per tonne of product	By end of 2022, 65% of purchased electricity was from low carbon or renewable sources. This marks an increase of 48% and reduces our Scope 2 emissions to 90 kt.	Absolute energy consumption (GWh)	5.718	5.227	4.577	5.163	4.842	7
		In 2022, energy efficiency decreased by 5% compared to 2021. The main reason for that was the increase in sourcing of raw material from the Group's own assets as the new rotary kiln processing dolomite ore in Hochfilzen, Austria, and overall reduced capacity utilisation.	Relative (MWh/t)[2]	2.00	1.97	2.03	1.90	2.02	
3. Recycling	Increase use of secondary raw materials to 10%	Recycling rate of 10.5% in 2022, achieved 2025 target of 10% three years early.	Use of secondary raw materials	3.8%	4.6%	5.0%	6.8%	10.5%	12
4. Diversity	Increase women on our Board and in senior leadership to 33%	Gender diversity target of 33% achieved at Board level, further progress required at EMT + EMT direct reports where female representation has increased to 21% from 12% in 2018.	Board	7%	23%	25%	38%	33%	5
			EMT and EMT direct reports	12%	17%	25%	22%	21%	
5. Safety	Maintain LTIF at <0.5 (goal: zero accidents)	Health & Safety target to maintain LTIFR below 0.50 achieved.	per 200,000 hours worked	0.43	0.28	0.13	0.19	0.20	3, 8
6. NOx and SOx emissions	Reduce by 30% by 2027 (vs 2018)	NOx and SOx reductions proceeding on track. China target achieved in 2021, US in progress (2022): NOx and SOx abatement technologies installed.			China target 2021	North America target 2025	Europe target 2027	South America target 2027	3, 9

1. Historical CO_2 emission data were revised to reflect new acquisitions and changes that were made following an external verification process that took place in July 2022.
2. Adaptations in line with the Greenhouse Gas protocol and refinement in reporting result in updated CO_2 and energy efficiency figures for 2018–2022.

Sustainability

Governance

RHI Magnesita is committed to leading governance and sustainability practices, as demonstrated by its commitment to the UN Global Compact and to the reporting of its sustainability performance according to Global Reporting Initiative standards.

At Board level, a dedicated CSC supports the Board, acting as an advisory body to ensure the long-term sustainability of the business. The CSC monitors performance against relevant KPIs and assesses risks and opportunities associated with climate change, environmental, health and safety, stakeholder relations and other ESG risks.

At executive level, The Chief Technology Officer (CTO) and functional leaders are allocated responsibility for delivering the Group's sustainability priorities in their specific areas or regions. The Global Sustainability Team has responsibility for external reporting, reviewing and assessing sustainability-related risks and opportunities and liaising with the Board, management and key external stakeholders (such as ESG ratings agencies) to develop and implement strategies for driving sustainability across our business. The team works in close collaboration with senior leadership, functional and regional business units, plant managers and other internal sustainability stakeholders to determine, monitor and deliver the sustainability strategy and targets.

The Global Sustainability Team provides regular updates on performance to the CSC including an annual review of sustainability performance. A Sustainability Forum has been established to bring together various executives with responsibility for improving sustainability performance.

In 2022, we increased our focus on supply chain sustainability with the creation of a dedicated team to develop our global sustainable procurement strategy and provide guidance to the Group's regional operations. Each region has a sustainable procurement expert who is responsible for driving initiatives such as desktop and on-site supplier assessments. The global sustainable procurement team supports and cooperates with the Global Sustainability Team and reports as required to the CSC.

Ethics and compliance

In 2022, we enhanced and further embedded our compliance policies and procedures and conducted training and communications initiatives in the areas of sanctions and export controls, business partner due diligence, data privacy and anti-bribery and corruption.

Anti-corruption is one of the UN Global Compact's ten principles which we have committed to integrating into our business strategy and operations. We take a zero-tolerance approach to any incidents of fraud, bribery or corruption in our operations and value chain. This approach is set out in our Code of Conduct and the Supplier Code of Conduct.

Comprehensive online training on topics such as business ethics, anti-corruption, data privacy or sanctions and export controls and regular monitoring of the completion rates ensures that all office-based employees, including new hires, are trained. Additional sessions are provided as necessary, for example for sales staff. Anti-corruption and other key compliance topics are regularly included in global and regional communications campaigns.

We regularly conduct compliance risk assessments, such as fraud risk assessments, with results presented to management and the Audit & Compliance Committee each year. We have implemented digital registers, workflows and employee guidelines to address, document and monitor conflicts of interest declarations, gifts and invitations and community investment approvals.

Business partners (e.g. customers, sales intermediaries and suppliers) and transactions such as mergers or acquisitions are subject to a due diligence process. In 2022, additional focus was placed on business partner checks to ensure compliance with sanctions and export control regulations. All sales agents are certified by TRACE International, a leading anti-bribery standard-setting organisation.

We are committed to upholding human rights and labour rights. In 2022, the CSC, on behalf of the Board, approved a Human Rights Policy. 82% of our employees belong to unions, are represented by works councils or are subject to collective bargaining agreements. In 2022, we reviewed our Code of Conduct, implemented a global Anti-Discrimination and Anti-Harassment Policy and launched a new Diversity Charter and online training in diversity and inclusion.

This focus on human rights and labour rights is now being expanded to include suppliers. The Supplier Code of Conduct, which all suppliers are required to commit to, includes provisions addressing both human rights and labour rights. The Board approves an annual statement in accordance with the UK Modern Slavery Act 2015 and California Transparency in Supply Chains Act.

We encourage anyone with ethics or compliance concerns to report them to an independently operated hotline, which is confidential and anonymous. We are firmly committed to whistleblower protection. Reports are independently investigated and appropriate follow-up actions are taken if necessary. The Audit & Compliance Committee receives regular data on cases submitted via the hotline and other channels. In 2022, the hotline and additional reporting channels generated 64 reports (vs 63 in 2021); The majority of reports were Human Resource-related cases with approximately 75% of all reports originating from Brazil. The tendency regarding the high number of cases from Brazil is rooted in the whistleblowing hotline being the preferred escalation route for Human Resource-related queries or concerns in Brazil, where the whistleblowing hotline is frequently used for the escalation of personnel-related queries that are dealt with through different communication channels in other regions.

Sustainability

Our business

Our customers

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 13 CLIMATE ACTION 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Product Carbon Footprint

To increase transparency for our customers, the Group completed a major project in 2022 to disclose the CO_2 footprint of each of its c.200,000 refractory products. "Cradle-to-gate" greenhouse gases, from raw material extraction to production and packaging, are included in the calculations which follows the principles of ISO 14067 standard.

The carbon footprint includes all Scope 1 and Scope 2 emissions and part of the Scope 3 emissions associated with the manufacturing of the product. The largest share of Scope 3 emissions arises from the purchase of refractory raw materials that are not sourced from within the Group. Limited data is available from suppliers for the carbon footprint of externally purchased raw material and the Group is continuing to refine its estimates in this area.

The CO_2 footprint data enables us to (i) better address customer needs with the most suitable technical and sustainable products and solutions; (ii) gain a competitive edge via sustainability criteria in tender processes, and (iii) incorporate sustainability and environmental indicators into our product design and production cycles.

Net zero products

The progressive reduction of CO_2 emissions has become a fundamental target for our customers and RHI Magnesita aims to be the preferred refractory partner as this transition is realised. We are also committed to developing a circular economy in the refractory industry, aiming at a zero-waste product life cycle to preserve natural resources.

RHI Magnesita's 'Net Zero Brick' project addresses both of these customer priorities, reducing CO_2 emissions by 85% and fully utilising reclaimed raw materials to create a refractory containing up to 100% recycled raw materials, excluding graphite and binders. There are now six 'Net Zero' shaped products currently being trialed with customers in real-world conditions. The Group has also successfully developed basic gunning mixes with similar sustainability benefits. The ANKERJET XW low-carbon gunning mix has achieved an 85% reduction in carbon footprint with no loss of performance compared to conventional products.

The increased use of recycled materials improves raw material availability, reduces the cost and resource-intensive process of raw material extraction and processing and significantly reduces CO_2 emissions, with each tonne of recycled material used saving approximately two tonnes of CO_2 emissions.

Digital solutions

RHI Magnesita offers digital solutions and associated physical equipment which achieve CO_2 emission reductions through process efficiencies, such as wear monitoring and gunning repairs to extend the safe working life of refractory linings. Safely extending the working life of refractory linings can achieve significant energy savings for steel producers by reducing the number of heating and cooling cycles required per unit of steel output.

Four main digital solutions contribute to CO_2 savings at our customer sites:

- APO — uses process data to accurately predict the usable lifetime of a refractory. Allows longer safe working cycles, delivering a reduction in energy-intensive heating phases.
- PROIL — optimises steel or metal flow to reduce scrap rate and achieve higher quality, improving energy and CO_2 efficiency.
- VISIR LadleSafe — measures residual thickness of ladle working lining. The information provided allows longer safe running times, reducing the number of energy-intensive heating cycles.
- Ladle Slag Model — optimises the input of slag conditioner, reducing energy demand.

The Group also offers advanced refractory products which enable its customers to substantially reduce GHG emissions by reducing electricity consumption, improving yield and reducing oxygen consumption, saving up to 13kg of CO_2 per tonne of steel produced. Other solutions and products which directly contribute to CO_2 emissions reductions at customer sites include cold setting mixes, EAF direct purging plugs and converter gas purging products.

Our suppliers

13 CLIMATE ACTION

Sustainable Procurement

RHI Magnesita seeks to integrate sustainability priorities into its procurement processes.

Supply chain due diligence

Supplier Code of Conduct

The Supplier Code of Conduct requires suppliers to follow the same principles as set out in RHI Magnesita's own Code of Conduct. It is distributed to all suppliers who are then required to confirm compliance.

Supplier assessments through EcoVadis

An assessment system developed with EcoVadis is used to rate potential suppliers for sustainability impacts such as energy use, CO_2 emissions and waste. The ratings resulting from this assessment form an important part of the Group's procurement decision-making process.

An initial phase of supplier assessments was carried out in 2021 based on contract size and risk mapping. The process has continued in 2022, now covering 31% of spending. Our target is to cover two-thirds of the supplier base by 2025, including all suppliers delivering raw materials with a high CO_2 intensity.

Supplier on-site assessments

The Group conducts on-site assessments to evaluate suppliers based on quality, Health & Safety and ESG aspects. In 2022, RHI Magnesita conducted nine on-site assessments, including eight in India and one in Europe (2021: no assessments).

Supplier product carbon footprint

Since the contribution of raw material extraction and processing is the largest single source of CO_2 emissions in the refractory value chain, the Group is seeking to increase the accuracy of its supplier CO_2 emissions data. Accurate information enables the Group to prioritise suppliers with lower emissions to minimise Scope 3 emissions. Engagement on the subject of emissions also highlights to potential suppliers that reducing CO_2 is a key priority for the Group, which is expected to drive changes in supplier behaviour and energy use in the long term.

Our planet

Tackling Climate Change

Driving down carbon emissions is a key priority for RHI Magnesita. In addition to charting our own transition, we want to be a trusted partner to our customers on their journey to a low carbon economy.

The Group's emission reduction plans target a 15% reduction in CO_2 emissions intensity for Scope 1, 2 and 3 (raw materials) emissions by 2025, compared to 2018. Our climate strategy is based on:

1) reducing the carbon footprint of our raw materials, including through the increased use of circular raw materials;
2) increasing energy efficiency in our operations;
3) reducing the carbon intensity of our energy sources; and
4) providing innovative solutions to reduce customer emissions.

Climate governance

The Board of Directors' CSC has responsibility for overseeing RHI Magnesita's climate strategy. The Corporate Sustainability Committee (CSC) regularly reviews climate risks and opportunities, strategy and performance, while the Remuneration Committee reviews and approves bonus payments linked to climate.

The Chief Technology Officer (CTO) reports regularly to both the CEO and Board CSC on a quarterly basis. The CTO is part of the EMT and has responsibility for overseeing the development of the Company CO_2 reduction strategy and its implementation across the organisation.

In 2022, CO_2 considerations were built into key remuneration incentive processes as follows:

- A new internal pricing mechanism was introduced to incentivise sales teams to prioritise products with higher recycled content.
- 25% of the Long-Term-Incentive-Plan (LTIP) payout criteria is linked to the Group's target to reduce CO_2 emissions per tonne against 2018 baseline year.
- Increase of secondary raw material accounts for 10% of the annual bonus for all eligible employees.
- Enhanced monthly monitoring of CO_2 emissions was integrated into the Group's enterprise resource planning tool.

Governance	• Describe the Board's oversight of climate-related risks and opportunities — See **page 89** • Describe management's role in assessing and managing climate-related risks and opportunities — See **page 90**
Strategy	• Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term — See **page 90** • Describe the impact of climate-related risks and opportunities on the organisation's business, strategy and financial planning — See **page 91** • Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario — See **page 90**
Risk Management	• Describe the organisation's processes for identifying and assessing climated-related risks — See **page 91** • Describe the organisation's processes for managing climate-related risks — See **pages 91-92** • Describe how processes for identifying, assessing and managing climated-related risks are integrated into the organisation's overall risk management. — See **pages 91-92**
Metrics and targets	• Disclose the metrics used by the organisation to assess climate-related risks and opportunities, in line with its strategy and risk management process — See **page 93** • Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks — See **page 93** • Describe the targets used by the organisation to manage climate-related risks, opportunities and performances against targets — See **page 93**

Climate risk

Climate change represents both strategic and operational risks to our business. These are grouped as physical risks and transitional risks.

Physical risks include greater severity of flooding, droughts or other extreme weather events which could disrupt our operations or supply chain.

Transitional risks range from new regulatory frameworks and the rising price of CO_2 emissions allowances to the viability and customer acceptance of emerging technologies.

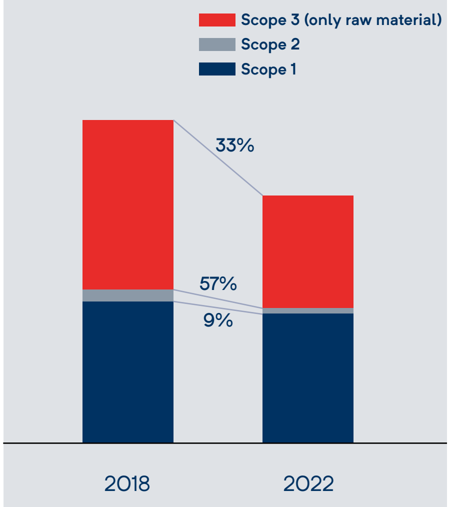
In 2022, two climate scenarios (representative concentration pathways 2.6 and 8.5) were considered based on the Intergovernmental Panel on Climate Change Fifth Assessment Report to update RHI Magnesita's modelling and risk analysis. This exercise concluded that physical risks remained unchanged, whilst there were new developments to assess in transitional risks, for example in the case of emissions legislation developments in Europe. Full details of risk assessments can be found in the Group's 2022 TCFD report (see Appendix — **Pages 89-93**).

Climate strategy

Our short-term target is a 15% reduction in emissions intensity by 2025 in Scope 1, 2 and 3 (raw materials) compared to the 2018 baseline year. We are working to reduce our emissions by investing in recycling, using alternative energy sources and increased energy efficiency. We are also carrying out research and development on carbon capture and storage technology and the use of hydrogen as an alternative to fossil fuels.

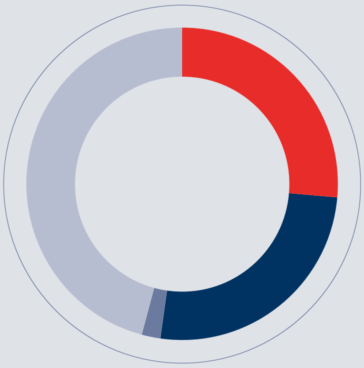
In 2022, total CO_2 emissions (Scope 1, 2 and 3 — raw materials) were 4.2 million tonnes and our emissions intensity has reduced by 8%. Since the baseline year of 2018, the Group has exceeded its targets in recycling but this has been offset by slower progress on switching to alternative fuels which is now uncertain due to disruption in the market for natural gas. If reliable supplies of natural gas are not secured by 2025 the Group may fail to meet its CO_2 intensity reduction target, with the current estimated outcome excluding fuel switches at 12%.

Our Carbon Emissions Reduction 2018 vs. 2022



Our planet
continued

Carbon emission per Scope



Scope 1; of which geogenic emissions	26.5%
Scope 1; of which fuel-based emissions	25.8%
Scope 2; electricty	2.1%
Scope 3; emissions only raw material	45.6%

In accordance with GHG Protocol, biogenic emissions are reported independently from the scopes. In 2022, our biogenic emissions were 13 thousand tonnes.

Recycling and the circular economy

RHI Magnesita is leading the refractory industry in the use of circular raw materials. For every tonne of waste refractory material that is re-used, approximately two tonnes of CO_2 emissions, which would otherwise have been emitted in the extraction and processing of new raw material, can be saved.

Historically, the use of circular raw material in the industry has been limited because of the reduced effectiveness of refractories made with recycled material. RHI Magnesita has developed new technology for using circular raw material without impacting performance.

The Group's recycling target is to increase use of circular raw material to 10% of raw material by 2025 and in 2022 we have already achieved over 10% (2021: 6.8%). Due to the geogenic CO_2 emissions and energy consumption involved in the processing of new raw material, increasing the recycling rate is an effective route for the Group to reduce its CO_2 emissions in the short term. Working towards this not only develops the circularity of our business but is also the single most important contributor to achieving our 2025 emissions reduction target.

Around half (2022: 51%) of our Scope 1 CO_2 emissions are geogenic, released from carbonate minerals during processing. Replacing these virgin raw materials with recycled or circular raw materials avoids these emissions. Reaching our target of 10% recycled content will therefore avoid up to 300,000 tonnes of CO_2 and 150,000 tonnes of landfill waste per year. Early achievement of the 10% target was due to improvements in the collection and processing of circular raw material. We have identified four key drivers of success in recycling:

- Improving the flow of spent refractories to our recycling centres from customers and traders.
- Developing new sites and technologies to process spent refractories.
- Increasing consumption of recycled raw materials across our product range without impacting performance.
- Growing customer awareness and sales of products with high recycled content.

In H1 2022, a new joint venture between RHI Magnesita and Horn & Co Group was established in which the Group holds a 51% stake. A new brand for the joint venture, MIRECO has been established which is intended to be an open platform servicing all participants in the refractory production cycle. MIRECO will be active across Europe, including the Balkans and Türkiye, with a local-for-local approach. Further investment is planned at Mitterdorf, Austria, in 2023 to install automated sorting technology.

We are also investing in new recycling facilities and processing technologies outside of Europe. In 2022 we installed a magnesia carbon brick treatment plant in Brazil and in 2023 a new magnesia carbon treatment station in India and a recycling centre in South America are planned.

The impact of increasing the use of recycled raw material is now visible to our customers after the launch of carbon footprint datasheets for all products. Developing more recipes with higher recycling content is another key focus. The ANKRAL LC (low carbon) series of bricks for the cement industry includes up to 50% recycled content. Trials of new basic refractory mixes are also underway for products with 20-50% recycled content. These brands are already well established in Europe and the concept is now starting to gain momentum in the China & East Asia region.

Decarbonisation of refractory production

Refractory production is a 'hard to abate' industry. Raw material processing generally uses fossil fuels for ignition and burning of carbonate rock, which results in significant geogenic CO_2 emissions. These geogenic emissions are classified as Scope 1 when resulting from the Group's own production or Scope 3 in the case of externally purchased raw materials.

Significant energy is also required for firing of products in the refractory manufacturing stage. Further emissions are generated in the shipping and distribution of refractory products to customers worldwide.

Through its investment in research and development of emissions avoidance or reduction technologies, the Group has developed a theoretical pathway to decrease its Scope 1, Scope 2 and Scope 3 (raw materials) carbon emissions from refractory production to close to zero. The required measures have been prioritised in order of deliverability, with those items that are fully within the control of the Group to be expedited.

The first stage of CO_2 emissions reduction is to be delivered through measures which can be implemented by the Group without significant external support, including increased use of recycled raw materials, fuel switches and energy efficiency measures. It is estimated that these measures could deliver an absolute reduction of around 1 million tonnes of CO_2 emissions, or 20% of the baseline total by 2035. Beyond this initial reduction, decarbonisation measures become progressively harder to deliver. Recycling has a natural ceiling since refractories are consumed during use and only residual materials can be reclaimed, whilst fuel switches to natural gas only offer a partial reduction. The pathway for stages 2 to 4 is reliant on the provision of (i) new infrastructure or renewable energy sources such as hydrogen by outside parties; (ii) the use of technologies which do not yet exist or are not proven at pilot or production scale and (iii) significant capital expenditure, which may not be possible for the

Company to generate from its existing operations, obtain from its finance providers or receive via government funding.

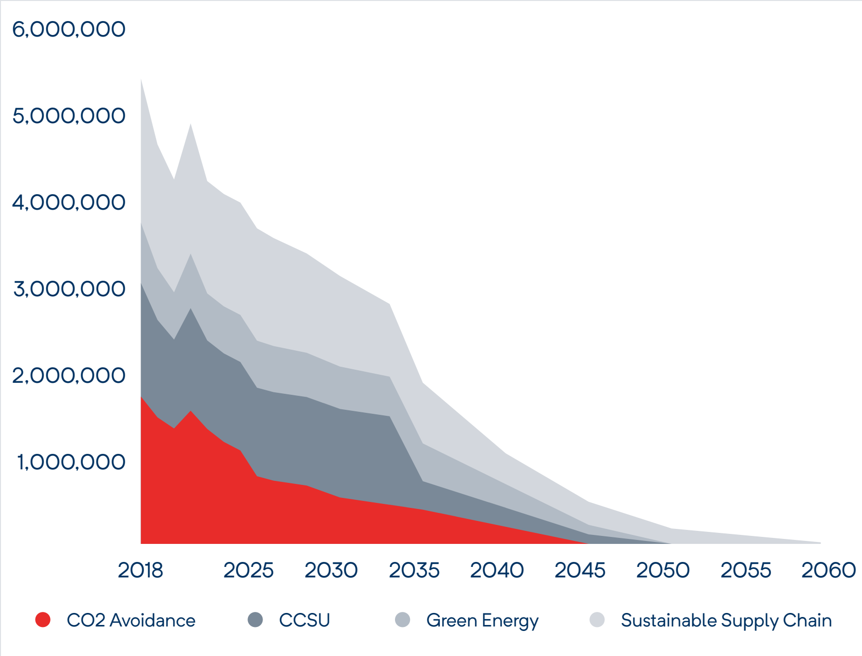
The costs of emitting carbon, which could provide an incentive to accept higher capital expenditure and operating costs for the purposes of reducing CO_2 emissions, apply in certain jurisdictions and provide a business case for reducing emissions in those geographies. Estimates of future potential CO_2 costs are built into the Group's financial forecasts and planning decisions. However, the Group has a global production and customer network and competes with other refractory producers who are not subject to additional CO_2 costs.

Our decarbonisation commitment

Working within these limitations, the Group is committed to:

1. leading the refractory industry by decarbonising its operations as fast as sustainably possible;
2. annually updating its decarbonisation pathway based on the latest developments in technology, infrastructure and estimated capital expenditure;
3. continuing to invest in the development of new technologies to avoid CO_2 emissions, proving our technical readiness to use alternative low-carbon energy sources and to capture CO_2 emissions for storage or utilisation;
4. offering our customers enabling technologies for their own low-carbon production technologies together with low-carbon products and heat management solutions (with full transparency on carbon footprint) to enable them to reduce their Scope 3 CO_2 emissions from the purchase of refractories;
5. lobbying governments to invest in the necessary infrastructure to decarbonise the refractory industry and other energy intensive industries, including additional renewable energy generation, hydrogen supply networks, CO_2 transportation and storage and carbon capture and utilisation technologies;
6. working with partners in the private sector to develop new renewable energy solutions, hydrogen energy networks and carbon capture and utilisation technologies.

Theoretical decarbonisation pathway



Offsetting carbon emissions

The Group has significant CO_2 emissions within its own value chain and there are large emissions savings that can be delivered for its customers through improved heat management or other solutions. The Board therefore considers that the priority should be to allocate capital and other resources to reducing the Group's own CO_2 footprint and the emissions of its customers rather than investing in carbon offset projects. The Board believes that taking this approach will deliver a faster, greater and more sustainable decrease in net CO_2 emissions than could be delivered by allocating capital to offsets.

2022 decarbonisation update

Partnership and industry co-operation

RHI Magnesita supports industry partnerships for the development of carbon capture and usage technologies. These include the K1-MET consortium in the Austrian steel industry and the Industrial Advisory Board of the EU-funded MOF4AIR project, a development of the new Metal Organic Framework for capturing CO_2.

In 2022, we progressed a joint programme with the University of Leoben to research the possibility of re-mineralisation of captured CO_2. RHI Magnesita also takes part in broader multilateral platforms to address the most complex sustainability challenges such as the Verbund X Accelerator 2022.

In terms of industrial partnerships, the Group is working with other major CO_2 emitters in Austria and Germany to address key regional constraints such as power access and options to use or transport CO_2. Our customers in the cement, steel and chemical industries face the same challenges and are working to develop similar technologies. An early definition on the future of industrial hubs which could utilise CO_2 and benefit from pipeline access for hydrogen and CO_2 transport will have wider benefits across several different industries.

Carbon capture and utilisation

In 2022, trials were progressed to assess technologies which could be used for CO_2 capture at our raw material production sites.

Addressing climate change

RHI Magnesita Decarbonisation Plan

2018

Key dates regulations

- Bonn Climate Change Conference
- Year of climate extremes
- US National Climate Assessment
- UN Emissions Gap Report
- IPCC Special Report on 1.5°C

Key milestones[1]

- Set up 2018 as baseline
- Set up 10% reduction target of our CO_2 emissions by 2025
- Set up 10% recycling rate of SRM

2019

Key dates regulations

- UN Climate Change Conference in Madrid
- Bonn Climate Conference
- EU Sustainable Finance Disclosure Regulation (SFDR)

Key milestones[1]

- Committed to invest €50 million in new and emerging technologies
- Austrian sites operate with 100% green electricity
- Upgraded CO_2 emission target to -15% by 2025

2020

Key dates regulations

- COVID 19 Pandemic
- UN Climate Change Dialogues (Virtuals)
- Adoption EU Hydrogen Strategy

Key milestones[1]

- Launched Ankrall low carbon bricks
- Project Railway in Hochfilzen, Austria
- Rated B at CDP Climate report — first submission

2021

Key dates regulations

- EU Taxonomy
- TCFD — Aligned Disclosures mandatory in UK
- Establishment of International Sustainability Standards Board (ISSB)
- Chinese Emissions Trading Scheme (ETS) — power sector only

Key milestones[1]

- Performed climate risk assessment for all sites
- Launched net-zero brick project
- Achieved 48% of purchased electricity from low-carbon or renewable sources (German sites operate 100% with green electricity)
- Performed oxyfuel trials in Breitenau

1 Future milestones may vary depending on technology development and external support, provided for illustrative purposes only

2022

- Russia invasion in Ukraine — Gas supply crisis
- COP 27
- EU CBAM
- CDP Methodology changes
- EU CSRD
- Aluminium and Cement included in Chinese ETS

- Launched MIRECO
- Achieved 2025 target of 10% recycling rate
- Implemented fuel switch project in Ponte Alta, Brazil. (charcoal use)
- 6 products containing up to 80% recycled material are part of RHI Magnesita's portfolio
- Rated A- at CDP Climate report

2025

- Mandatory ESG reporting in India from 2023
- Paper and chemicals to be included in Chinese ETS from 2024

- Implement fuel switch projects in York and Hochfilzen
- Achieve 15% recycling rate
- Increase the use of green electricity
- Implement the use of SRM at rotary kilns

2030

- 55% GHG emission reduction against 1990 levels in EU
- 50-52% GHG Emissions reduction against 2005 levels in US

- Implement fuel switch projects in Brumado and Chizhou
- Increase recycling rate
- Further use of SRM in rotary kilns
- Achieve 100% green electricity
- Increase the rate of hydrogen firing in tunnel kilns

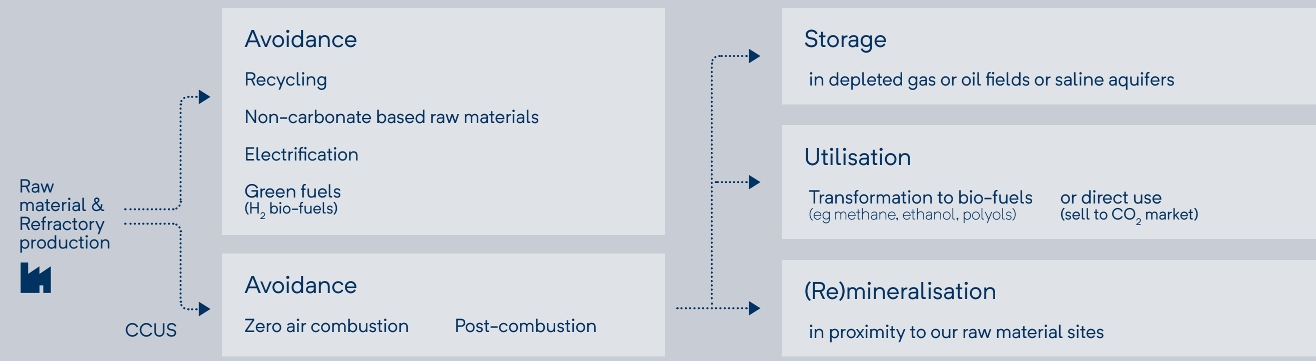
2050

- Net-zero targets for US, EU and UK

- Achieve oxyfuel firing in all rotary kilns
- Increase recycling rate
- Implement green energy (H_2 and electrification) for tunnel kilns
- Implement CCUS technologies
- Address sustainable supply chain (Scope 3)

Our planet
continued

Understanding our reduction measures



In collaboration with a major equipment supplier, a high-density sinter was produced at a test centre in Bethlehem, Pennsylvania, whilst achieving a high level of CO_2 enrichment in the offgas with an efficient sealing concept. Proving this concept is a key step towards large scale CO_2 capture and storage or utilisation.

Research continues on the use of various other post-combustion processes for carbon capture including chemical separation, cryogenic processes and membranes. In the area of carbon utilisation, our focus in 2022 was to investigate options to re-mineralise CO_2, fixing it permanently in a solid state.

Alternative fuels including hydrogen and biofuels

Hydrogen is a potentially carbon-free energy source which offers a promising alternative to fossil fuels for use in high temperature processes. In addition to lab trials for calcination and sintering, the Group is testing the use of hydrogen in production processes. The first pilot will be conducted at the Marktredwitz plant in 2023, including an assessment of the possibility to generate hydrogen on site.

Reducing the carbon intensity of energy

We are continuing our efforts to reduce the carbon intensity of our energy sources. However, in Europe the switch from CO_2 intensive petroleum coke to more CO_2 efficient natural gas in our plants has been postponed due to uncertainty over natural gas supply. To secure energy for our European operations through the winter of 2022-23, the Group has installed multi-fuel burners to be able to use alternative fuels such as fuel oil and liquid petroleum gas. The use of these alternative fossil fuels may result in higher CO_2 intensity at these sites in the short term. We continuously monitor energy markets to ensure that we use the least CO_2 intensive fuel possible.

At the Ponte Alta raw material production site in Brazil, a successful switch away from petroleum coke to sustainably sourced charcoal has delivered 18kt of annualised CO_2 emissions savings (4kt in 2022).

We continue to reduce the CO_2 intensity of purchased electricity. In Brazil and Türkiye, we switched to a fully green electricity supply in 2022. The Group is also investigating potential for solar generation at several of its sites. By the end of 2022, 65% of purchased electricity was from low carbon or renewable sources. This marks an increase of 48% and reduces our Scope 2 emissions to 90kt (2021: 147kt).

Energy use

	2019	2020	2021	**2022**
Total consumption (GWh)[1]	5.227	4,577	5,163	**4.842**
MWh/t[1]	1.97	2.03	1.90	**2.02**

1. Refinement of historical data to reflect new acquisitions in 2022.

In 2022, RHI Magnesita consumed 4.842GWh of energy, an absolute decrease of approximately 6% compared to the prior year. (2021: 5.163GWh). The main reason for lower energy consumption was a lower production volume in 2022 compared to 2021.

The Group has a target to increase its energy efficiency by 5% by 2025 compared to 2018. In 2022, energy efficiency decreased by 6% compared to 2021. The main reason for that was the increase in sourcing of raw material from the Group's own assets as the new rotary kiln processing dolomite ore in Hochfilzen, Austria, was commissioned and ramped up; and overall reduced capacity utilisation. At our Radenthein site in Austria we replaced primary energy with waste heat for drying, saving around 4 GWh per year. At Tlalnepantla, Mexico, improved process control enabled energy savings of c.0.5 GWh and at Niederdollendorf, recipe modifications reduced firing temperature from 1500°C to 1300°C, resulting in a significant decrease in energy required. We continue to roll out the implementation of ISO 50001 across all our operations and by end of 2022, 34% of sites had implemented ISO 50001.

Reducing NOx and SOx emissions

Our target is to reduce our nitrogen oxides (NOx) and sulphur oxides (SOx) emissions by 30% by 2025 compared to 2018. The target was achieved in China in 2021 and the current focus is now on North America. We significantly reduced NOx emissions in York, Pennsylvania, by implementing a two-stage combustion process in the rotary kilns. SOx reduction appliances have also been installed and are successfully reducing emissions.

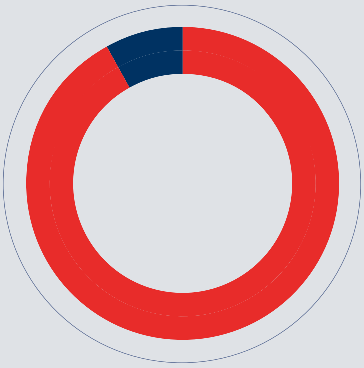
Protecting biodiversity

The Group is committed to protecting biodiversity at its operational sites and taking every possible step to minimise its impact on local plant and animal life. At the Brumado mine and raw material processing site in Brazil the Group is required to restore land to its prior state after use, including the planting of native vegetation which matches that found in the local area. For this purpose and for wider community benefits, over 20,000 seedlings were grown in the on-site tree nursery and planted inside and outside RHI Magnesita's properties by employees and community members in 2022.

Water stewardship

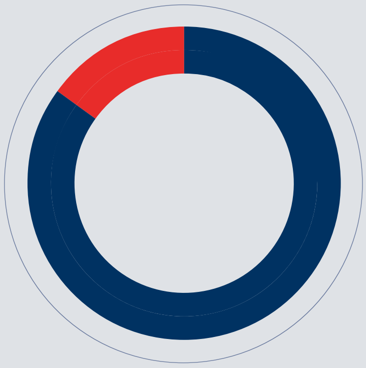
In 2022, we drew 12.1 million m³ of water from surface and groundwater sources, with 15% of this consumption taking place in areas at risk of water scarcity. At Bhiwadi, India, a modification to the cooling system reduced water consumption by 17% and at Flaumont, France, a water underground storage system was implemented to protect nearby rivers from waste water emissions.

Our energy use by source



- Energy use from non-renewable sources 92%
- Energy use from renewable sources 8%

Our Water Use



- Water consumption in non-scarce areas 85%
- Water consumption in water scarce areas 15%

Case Study — Environment

Release of wild animals in the legal reserve of RHI Magnesita

On November 29, 2022, the Centro de Triagem de Animais Silvestres (CETAS) of Vitória da Conquista held together with the RHI Magnesita's Environment team, the release of 164 birds (rescued from animal trafficking), and jiboya at Serra das Éguas, within the legal reserve of RHI Magnesita in Brumado. In Brazil, birds are the mostly captured and sold animals in the illegal market. The most targeted species are psittaciformes (macaws, parrots and parakeets), passerines (birds), dendrobatids (poisonous and coloured frogs), primates and lepidopterans (butterflies). Moreover, nine out of ten animals trafficked die before reaching their final destination. The release held within the legal reserve of RHI Magnesita shows how important is the preservation of native areas and the commitment of RHI Magnesita with environmental sustainability.

Our people

Goal: we aim for 33% women in leadership roles by 2025.

A culture that supports people in reaching their potential

Customer focus is the centre of our culture, which has four key dimensions: innovation, openness, pragmatism and performance. To drive and maintain our culture we must attract, develop and retain a diverse and high-performing workforce. Our colleagues expect and deserve an inclusive, safe and empowering work environment. Employees from over 90 countries bring with them a wide range of experiences, backgrounds, and perspectives. We support and encourage a mindset of lifelong learning, and personal and professional growth.

In 2018, we introduced the 'culture champions' network with over 60 employees worldwide engaging with colleagues on a regular base to promote our corporate culture and this work continued in 2022. In 2023, the cultural champions will include the theme of unconscious bias in their activities.

In 2022, we introduced a new global anti-harassment policy as a further step towards our diversity and inclusion commitment.

RHI Magnesita will continue promoting diversity amongst its employees including in management positions, where good progress has been made to date but further efforts are required to meet our 2025 target.

Developing our leaders

Developing an internal talent pool of future leaders has always been a key focus at RHI Magnesita and we are building our leadership pipeline through strategic succession management. Succession planning secures a sustainable pipeline of internal high performers for our most senior and critical positions, which includes future female leaders. With our global footprint, we aim to reflect the geographic diversity of our business and we have appointed female leaders to senior roles in each of our five regions. We also seek to increase representation from different age groups to enable us to benefit from a multi-generational workforce.

Through our global trainee programme, we aim to attract and retain young talent as the future leaders of our business. In 2022, we introduced a second cohort of global trainees with a 57% female intake.

In 2022, we reported to the FTSE Women Leaders Review.

33%
Of female leaders by 2025

104
Manager roles held by women

5
Women on the Board of directors

This year, we launched the "New Leaders Programme" in Europe, which offers training to newly appointed leaders to help them to excel in their roles. The programme addresses key trends such as digitalisation, decarbonisation, and increasing complexity and volatility in global markets, focusing on leadership in times of change and uncertainty.

> Succession planning and leadership development for RHI Magnesita means sharing one fundamental goal: getting the right people with the right skills in the right place.

Building a diverse and inclusive workforce

As one of our key core values, diversity is promoted within our corporate culture. We are committed to providing equal opportunities for all employees, regardless of age, gender, skin colour, ethnicity, sexual orientation or disability.

Through our diversity and inclusion strategy, our goal is to provide a culture of inclusion and wellbeing for all our employees. RHI Magnesita believes that companies should reflect the world around us. Embracing diversity and building inclusion into everything we do is important for the success of our business and helping us connect with the customers that we serve. The diversity of our employees is key to this, as it gives rise to new ideas and approaches.

We require a broad range of talent and perspectives from a varied workforce, which we assess based on gender diversity, international representation, and generation management.

In December 2021, a new diversity strategy was launched including the adoption of our Diversity Charter. In 2022, key initiatives have included a survey of the needs of female leaders, trainee workshops, external events participation, global anti-discrimination and diversity training and a LinkedIn learning diversity campaign.

Gender diversity

Our internal women's network helps to shape our gender diversity agenda. Its intended refreshment in 2023 will focus on promoting global and regional measures to improve diversity, keep track of progress and co-ordinate roll out of diversity initiatives with line functions

Board female representation at the 2022 year end was 33%. Currently, 21% of all senior leadership positions are held by females (2018: 12%) including the EMT and their direct reports. RHI Magnesita's goal is to increase the share of female leaders at both Board and EMT plus direct report level to 33% by 2025.

Diversity needs Decision, Development & Dedication

RHI Magnesita's 2022 Programme for Gender Equality

Progress of measures, agreed in December 2021, to be executed in 2022:
100% = Ready to be launched

Decision
for diverse leaders

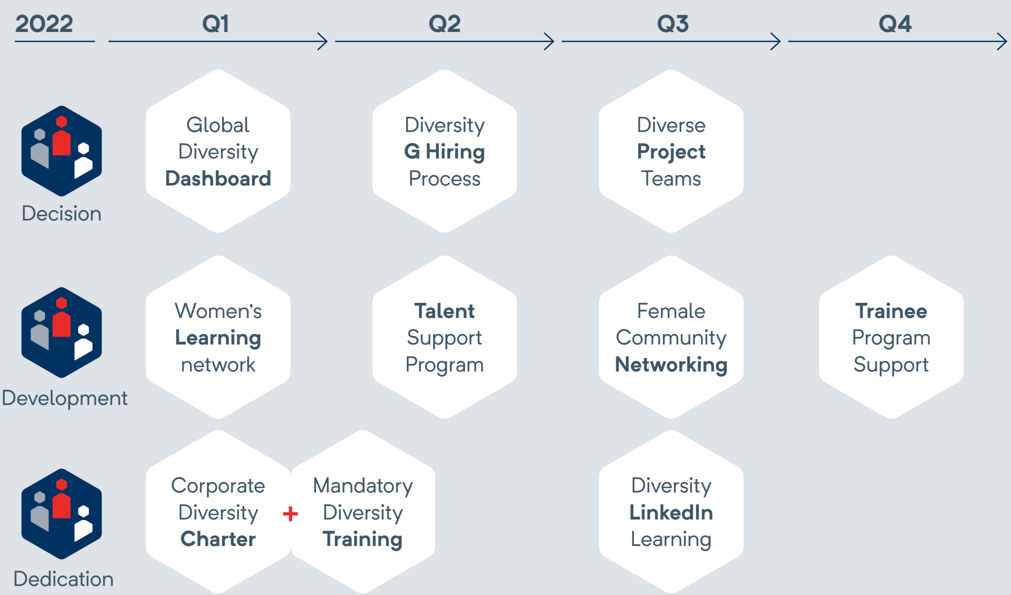
Hire and promote diverse people. Leaders and HR are accountable for execution of future organisation.

Development
of diverse people

Fill the pipeline. Train and support diverse talents. Empowerment of diverse people is key to prepare them for future roles.

Dedication
for a diverse environment

Create and promote a workplace of equity and inclusion: fair working conditions & high awareness at leadership.



Our people
continued

Health & Safety

Our employees and contractors are entitled to a safe and healthy workplace. Since the COVID-19 pandemic, this fundamental employer obligation has taken on even greater significance and we have worked hard to protect health, safety and wellbeing of everyone who works with us.

During 2022, we continued to follow COVID-19 safety protocols. Routine testing helped to protect the safety of our workforce and the continuity of our business.

We strengthened the presence of regional Health & Safety coordination and execution and established a culture of communication, benchmarking and knowledge sharing across the regions.

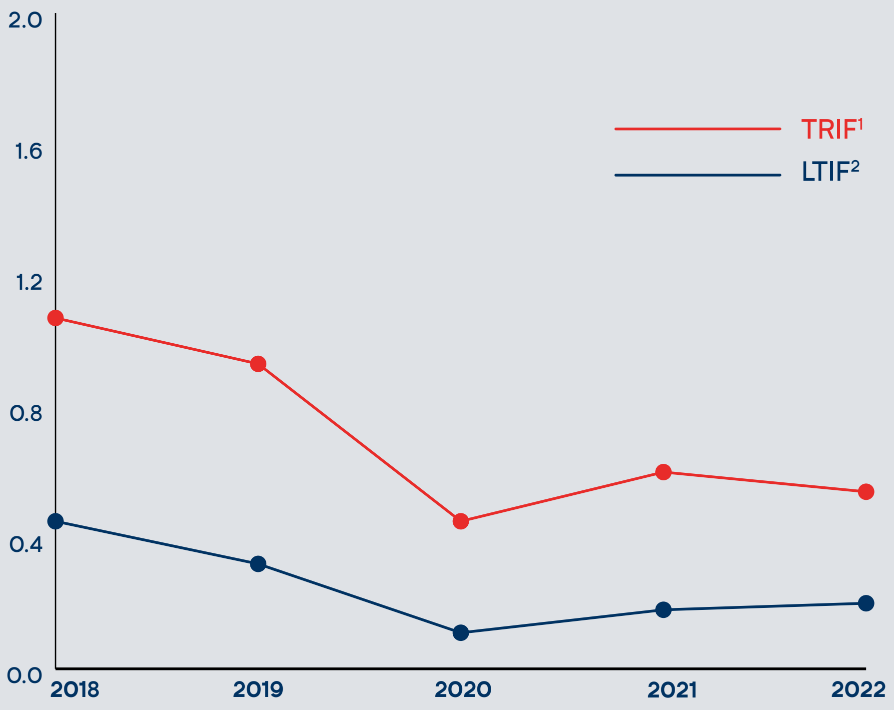
High plant loads combined with reduced staffing due to COVID at the beginning of the year were contributory factors behind a slight increase in LTIF from 0.19 in 2021 to 0.20 in 2022. However, TRIF decreased from 0.61 to 0.54 in 2022. Most regrettably, one contractor died as a result of a workplace traffic accident in India. An urgent investigation into the root causes of this incident was carried out and changes were made to relevant guidelines worldwide to improve safety procedures.

We continued to progress our occupational health & safety programmes, seeking to balance leading and lagging indicators in order to be more pro-active and less reactive. Leading indicators are helping our employees to understand the strengths and weaknesses of their safety efforts, giving direction and insights into the typical behaviour and conditions that precede any incident. We have almost doubled our Preventive Rate indicator compared to last year, demonstrating ongoing improvement in our safety awareness culture and we are extending implementation of ISO 45001 standards to our refractory installations business. Overall, RHI Magnesita proceeds to accelerate the standardisation with a global Health & Safety Management System and its certification by an external notified auditing body including local needs.

Hence, in 2022, the following operational sites have achieved a successful certification against ISO45001 Occupational Health & Safety Management System:

- Anhui (Brick & Sinter) (China)
- Visakhapatnam (India)
- Cuttack (India)

Health & Safety performance



1. Total recordable injury frequency rate per 200,000 hours.
2. Lost time injury frequency rate per 200,000 hours.

Sustainability

Our communities

As a developer of natural resources and major employer in the areas close to our operations, fostering a strong and positive relationship with our host communities is essential to our success. Our sites are located in diverse regions and it is essential for use to understand local context. We regularly engage and consult with our stakeholders, seeking to understand and respect their interests and priorities.

The Group operates a community investment programme in all of its key operational regions, seeking partnerships with local non-governmental organisations (NGOs) or delivering projects using in-house resources or volunteering where appropriate. Each project is designed to bring about long-lasting social improvements.

Our pillars

Our approach to community investment has been developed based on the UN Global Compact, focusing on three main pillars:

Education

Our investments seek to make education accessible, equitable and of a high quality, leading to relevant and effective learning outcomes.

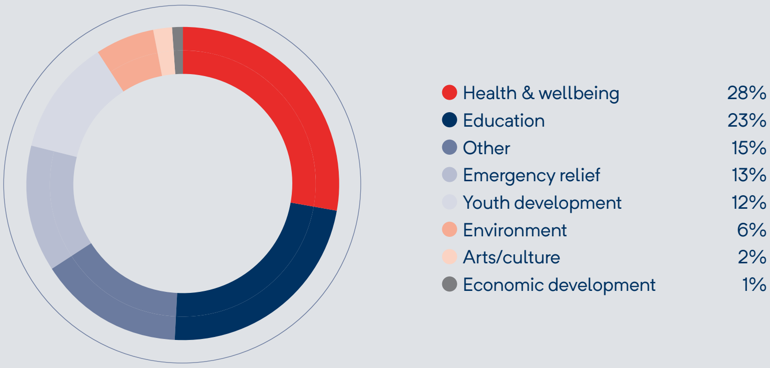
Youth Development

We aim to create and support programmes that engage young people in intentional, dynamic and valuable ways while recognising and enhancing their strengths.

Environment

In addition to the multiple initiatives that we are implementing to decarbonise our business, we seek to support wider environmental projects in our local communities.

Community spend 2022 by focus area



Case study

Teach for Austria

Since 2019, we have partnered with Teach for Austria, a local organisation which enhances educational opportunities for students who haven't had the best start in life. Through their main project, graduates and young professionals are trained to teach in urban low-income schools. The initiative has directly benefited 32 children in 2022.

The Group expanded its participation in 2022 by including the Teach for Austria initiative within its volunteering programme for Vienna-based employees. RHI Magnesita staff gave interview training and career advice for students at an event hosted by the Company.

It was a real pleasure to get to know the bright young minds of the class and contribute to their personal and professional growth. Their curiosity and willingness to learn more impressive.

Aleksandra Sanadrovic
Volunteer

Our communities
continued

Our Initiatives

Sustainable Bonds/Brumado, Brazil

In Campo Seco, a remote community in Brumado, Brazil, the programme "Sustainable Bonds" set up a factory that produces hand-made brooms using recycled PET bottles. In cooperation with a local NGO, 29 women have been trained in the cleaning, preparing and assembling of the necessary materials. The process recycles 14,000 bottles each month with the finished product sold in multiple retail outlets to fund the wages of the project participants.

Through this initiative, more than 40 families from Campo Seco have now a source of income, increasing quality of life and creating a focal point for the community.

Dual Education Program/Ramos Arizpe, Mexico

Facing the challenge of high demand for technically skilled workers in the north of Mexico, RHI Magnesita established the 'Dual Education Programme' in Ramos Arizpe in September 2013 which has now been running for nine years and has had an important impact on the community.

This was the first Corporate Social Responsibility (CSR) project implemented, and its main purpose was the improvement of technical vocational training for high school students. In the final two years of their studies, participants spend 80% of their time in the plant, where they apply what they have learned in the classroom.

Case study

Identid'Art/Brumado, Brazil

This socio-cultural initiative offers violin, viola and flute lessons for free to children aged ten to 14 in Brumado. The project started in 2020 and now over 120 children per year participate.

Identid'Art aims to promote culture and musical education as a catalyst for social inclusion for the participants, their families and local society.

Life can be transformed by music. This project brought to the community much more than an extra activity for the children... some of the children had never seen or heard a violin before, having this opportunity expands their perspective. My musical path comes from a very similar project back in my town.

Ailin Ayres
Project leader

This project is very important for me and all my friends, because it gives everyone the chance to discover something about themselves: either skills, strengths or areas of opportunity.

Maria Luisa
Project participant

> It can be hard to feel like you are able to make a difference to the society you live in. It is great that the Company gives us this chance to take an active role in contributing to our community.

Sally Caswell
Company Secretary

A total of 14 apprentices have graduated through the programme, and the vast majority have continued their professional training. Today, four of the colleagues at Ramos Arizpe are products of the Dual Training programme, working full time as technicians and engineers.

The initiative has positioned RHI Magnesita as a leader in dual training in Mexico and gives real long-term value to apprentices.

"Not a day goes by when Miguel doesn't teach us something. He's always looking out after us, willing to share his knowledge with everyone." Jared Limon Flores, apprentice, Ramos Arizpe.

Volunteering

RHI Magnesita encourages corporate volunteering as a key strategy to increase community engagement and make a positive impact on the communities in which we operate.

In 2022, a pilot programme was launched for the Group's Vienna-based employees, with the longer-term aim of developing a comprehensive framework for the implementation of a global programme.

Under the pilot, every employee in the Vienna office has been assigned one working day of paid volunteer leave per year and access to a programme of events to participate in.

Indigenous people

RHI Magnesita recognises and respects Indigenous people, their rights and heritage, knowledge, and practices. None of the Group's operational sites are located close to any Indigenous communities. RHI Magnesita supports the strengthening of legal recognition for Indigenous territories including protection against illegal mining and guaranteeing Indigenous people a strong voice in local and global dialogues that affect their future.

Appendices

RHI Magnesita Global Reporting Initiative Standards Index

General disclosures 2021		Location/page Annual Report 2022	Additional content
Disclosure number	Description		
The Organisation and its reporting practices			
GRI-2-1	Organisational details	—	Please click **here** for more details.
GRI-2-2	Entities included in the organisation's sustainability reporting	60	This non-financial report covers all activities, sites, and industrial assets operated or contractually managed by RHI Magnesita N.V. or one of its subsidiaries.
GRI-2-3	Reporting period, frequency and contact point	60	Non-financial data in this report are for financial year 2022 sustainability@rhimagnesita.com
GRI-2-4	Restatement of information	— 61	EU Taxonomy 2021 — the revenue, opex and denominator capex reported as part of the EU Taxonomy disclosure table from the economic activity "Material recovery from non-hazardous waste" as eligible in 2021 is restated (originally reported: Revenue 2021: €82 million; opex 2021: €3 million; restated: revenue €34 million; opex 2021: €1 million; Denominator capex (originally reported: capex 2021: €261 million; restated: capex €279,5 million)) (see Appendix — Taxonomy) Historical CO_2 emission data were revised to reflect new acquisitions and changes that were made following an external verification process that took place in July 2022. Adaptations in line with the Greenhouse Gas protocol and refinement in reporting resulted in updated CO_2 and energy efficiency figures for 2018-2022.
GRI-2-5	External assurance	60	RHI Magnesita commissioned Deloitte Audit Wirtschaftsprüfungs GmbH for an independent third-party limited assurance engagement on the non-financial report for the year ended 31 December 2022, according to Dutch transposition of the NFI-Decree, the Taxonomy Regulation ((EU) 2020/852) and GRI Standards. For more information, click **here** for more details on the assurance process and conclusions.
Activities and workers			
GRI-2-6	Activities, value chain and other business relationships	1-9	RHI Magnesita engages mainly manufacturing suppliers. Our largest 20 suppliers cover roughly 20% of our spend, largest 200 suppliers cover roughly 60%. RHI Magnesita engages suppliers that produce raw materials specifically for refractory industry, energy suppliers to allow conversion of raw materials into finished products, transport suppliers as well as manufacturing suppliers. With a few exceptions mainly for critical raw materials and energy supplies, our contractual commitments usually do not exceed one year. In most cases we have recurring demands, only in a few cases our purchases are project specific. RHI Magnesita operates in a capital and energy intensive business regarding the equipment to produce raw materials and finished products for our customers. A high share of specific raw materials to our industry are sourced in China which means a long supply chain. In the industry in which we are operating, the procurement spend equals roughly two thirds of the revenue. With the exception of a higher share of Chinese raw materials, the suppliers are mostly located in the country and region where we operate production facilities. As a result, Europe still has a higher share of suppliers than the other regions, followed by China, Brazil, USA and India.

General disclosures 2021		Location/page Annual Report 2022	Additional content
Disclosure number	Description		
GRI-2-7	Employees	24-25	a. Total number of employees by employment contract (permanent and temporary) and by gender (headcount): • Permanent: 12,248 (of which 10,564 male, 1,684 female) • Temporary: 1,483 (of which 1,157 male, 326 female) b. Total number of employees by employment contract (permanent and temporary), by region (headcount): • Western Europe: Permanent: 3,228; Temporary: 473 • Eastern Europe: Permanent:59; Temporary: 11 • Near and Middle East: Permanent: 613; Temporary: 2 • South America: Permanent: 4,729; Temporary: 153 • North America: Permanent 1,344; Temporary: 34 • Asia Pacific: Permanent: 2,231; Temporary: 807 • Africa: Permanent: 44; Temporary: 3 c. Total number of employees by employment type (full-time and part-time), by gender (headcount): • Full time: 13,515 • Part time: 216 • Full time male: 11,662 • Full time female 1,853 • Part time male: 59 • Part time female: 157
GRI-2-8	Workers who are not workers	—	For 2022, an estimation would result in an average FTE of 1,100.
Governance			
GRI-2-9	Governance structure and composition	100-105/115-117	
GRI-2-10	Nomination and selection of the highest governance body	98	
GRI-2-11	Chair of the highest governance body	98	Herbert Cordt, Chairman of the Board of Directors
GRI-2-12	Role of the highest governance body in overseeing the management of impacts	100	
GRI-2-13	Delegation of responsibility for managing impacts	100	
GRI-2-14	Role of the highest governance body in sustainability reporting	124	Chairman of Corporate Sustainability Committee
GRI-2-19	Remuneration policies	134	Chairman of Remuneration Committee
Strategy, policies and practices			
GRI-2-22	Statement on sustainable development strategy	60	Refer to Sustainability strategy
GRI-2-23	Policy commitments	62	Refer to Ethics & Compliance section
GRI-2-24	Embedding policy commitments	62	See also **here**.
GRI-2-25	Processes to remediate negative impacts	62	RHI Magnesita follows the precautionary principle in all its operations. All major operations in the EU follow the requirements of the EU IPPC Directive on the precautionary principle. Operations outside the EU follow the precautionary principle in line with national regulatory requirements. Please click **here** for more details.
GRI-2-26	Mechanisms for seeking advice and raising concerns	62	See also **here**.
GRI-2-27	Compliance with laws and regulations	—	There were no significant instances of non-compliance with laws and regulations that resulted in fines or sanctions during the reporting period according to Management. Provisions for potential litigations can be seen on Annual Report 2022, Notes 31. The Group will work to establish a comprehensive approach to report this indicator.

RHI Magnesita Global Reporting Initiative Standards Index continued

General disclosures 2021		Location/page Annual Report 2022	Additional content
Disclosure number	Description		
GRI-2-28	Membership of associations	–	• World Refractories Association (WRA) • European Refractories Producers Federation (PRE), via the Association of the Austrian Mining and Steel Producing Industry of the Austrian Federal Economic Chamber • Association of the Austrian Mining and Steel Producing Industry of the Austrian Federal Economic Chamber • Austrian Society for Metallurgy • Association of the German Refractory Industry • Steel Institute VDEh • Brazilian Association of Metallurgy, Materials & Mining (ABM) • Brazilian Association of Refractories Producers (ABRAFAR) • SIRef/MG (Minas Gerais State Refractory Industry Union) • Latin-American Association of Refractories Producers (ALAFAR) • SIR (Brazilian Refractory Industry Union) • Industriellenvereinigung (Federation of Austrian Industries) • Cerame-Unie • Euromines • European Technical Platform of Sustainable Mineral Resources (ETPSMR) • European Cement Research Academy (ECRA) • American Ceramic Society • Bergmännischer Verband Österreichs • US National Lime Association
Stakeholder engagement			
GRI-2-29	Approach to stakeholder engagement	106-109	Stakeholder engagement chapter
GRI-2-30	Collective bargaining agreements		82% of employees are covered
Material topics 2021			
GRI-3-1	Process to determine material topics	60	RHI Magnesita conducts a materiality assessment as part of our sustainability reporting process. This tool is used to identify issues that are important to the Company's long-term value creation and the demands of its stakeholders. Stakeholder engagement is a key component of the process, as it provides an understanding of what is material and allows the Company to work together to establish solutions for future challenges, even if there are conflicting perspectives from different stakeholders. In 2022, RHI Magnesita continued to prioritise stakeholder engagement and launched an online survey to collect the perspectives of different stakeholders in different regions, as well as an internal survey with employees. The Company reconfirmed Health and Safety, Recycling, Climate Change and Decarbonisation, Other Emissions, Energy Efficiency, and Diversity as material topics as they all fell in the quadrant of extremely important for all stakeholders. This materiality includes the double materiality concept, which considers the impact of topics on the value of the company. Three different levels of impact were considered (low, medium, high) based on a risk management approach that takes into account four dimensions (compliance, strategy, financial, and operation), as well as the likelihood of the risk becoming true. For more information, please see our updated **materiality matrix** on our website.
GRI-3-2	List of material topics	60	No significant changes in the list of material topics for 2022 and topic boundaries. Material topics/KPIs review will be based on updated materiality matrix (see above).
Requirement 7	Publish a GRI Index	–	Please click **here** for more details.
Requirement 8	Provide a statement of use	60	RHI Magnesita has reported in accordance with GRI Standards for the period 01.01.2022-31.12.2022.

Specific Standard Disclosures/Key RHI Magnesita Topics		Location/Page Annual Report 2022	Additional Content
Disclosure number	Description		
Economic Performance 2016			
GRI-201-1	Direct economic value generated and distributed	6-9; 16-22; 29-34	
GRI-201-2	Financial implications and other risks and opportunities due to climate change	47; 55; 91	Financial implications are described in our TCFD Report (**pages 90-92**).

Specific Standard Disclosures/Key RHI Magnesita Topics		Location/Page Annual Report 2022	Additional Content
Disclosure number	Description		
Anti-corruption 2016			
GRI-3-3	Management of material topics	62	RHI Magnesita's Code of Conduct outlines anti-corruption, conflicts of interest, and gifts & invitations policies. There are digital workflows in place to report potential conflicts of interest, seek pre-approval for gifts & invitations, and process proposals for community contributions. An independently operated whistleblowing hotline is available for employees and third parties to report potential violations. Regular reporting to executive management, regional management, and the Audit & Compliance Committee is conducted regarding key compliance issues. There is an annual audit of anti-bribery & corruption controls. Sales agents are required to have a TRACE certification and all suppliers are expected to follow the Supplier Code of Conduct.
GRI-205-2	Communication and training about anti-corruption policies and procedures	62	
Energy 2016			
GRI-3-3	Management of material topics	70	• Base year 2018 • Acquisitions conducted in 2022 partly included • Transportation, sales offices and other administrative buildings not included
GRI-302-1	Energy consumption within the organisation	70	• Historical energy data were revised to reflect new acquisitions and integration to the data collection system GET • No steam is used and we use some climate-chambers ISO-production that is reported under electricity.
GRI-302-3	Energy intensity	70	Adaptations in line with the Greenhouse Gas protocol and refinement in reporting result in updated CO_2 and energy efficiency figures for 2018-2022.
GRI-302-5	Reductions in energy requirements of products and services	70	The Group strives to have all sites supplied with renewable sources of electricity; 65% of our sites have green electricity, and increase of 48% against 2021 data (2021: 44%).
Water 2018			
GRI-3-3	Management of material topic	71	• Acquisitions conducted in 2022 partly included (Sörmaş in Türkiye) • Transportation, sales offices and other administrative buildings not included
GRI-303-1	Interactions with water as a shared resource	71	See below
GRI-303-3	Water withdrawal	71	2022 Water withdrawal (million m³): • Groundwater 10.5 • Drinking water 1.6 • Total 12.1 million m³
Biodiversity 2016			
GRI 3-3	Management of material topics	71	All RHI Magnesita sites that are under direct control are considered.
GRI-304-3	Habitats protected or restored	71	
Emissions 2016			
GRI-3-3	Management of material topics	64-70	• Base year 2018 • Acquisitions conducted in 2022 included • Transportation, sales offices and other administrative buildings not included • Historical CO_2 emission data were revised to reflect new acquisitions and changes that were made following an external verification process that took place in July 2022
GRI-305-1	Direct (Scope 1) GHG emissions	66	Biogenic emissions (thousand tonnes): 2018: 5; 2019: 8; 2020: 10; 2021: 13; 2022: 13 For questions on the emission factors and calculation methods, please contact: sustainability@rhimagnesita.com
GRI-305-2	Energy indirect (Scope 2) GHG emissions	66	For questions on the emission factors and calculation methods, please contact: sustainability@rhimagnesita.com
GRI-305-3	Other indirect (Scope 3) GHG emissions	66	Reported Scope 3 covers only CO_2 emissions from purchased raw materials. For questions on the emission factors and calculation methods, please contact: sustainability@rhimagnesita.com
Waste 2020			
GRI-3-3	Management of material topics	—	All RHI Magnesita sites that are under direct control are considered.
GRI-306-3	Waste generated	—	Data reported annually and split into hazardous and non-hazardous waste Hazardous waste:9.8 ktonnes; Non-hazardous waste:82.6 ktonnes
Employment 2016			

RHI Magnesita Global Reporting Initiative Standards Index continued

Specific Standard Disclosures/Key RHI Magnesita Topics		Location/Page Annual Report 2022	Additional Content
Disclosure number	Description		
GRI-401-1	New employee hires and employee turnover	—	a. Total number and rate of new employee hires during the reporting period, by age group, gender and region. i. Age group Under 30 years old: 1,257 (53,2%) 30 - 50 years old: 1619 (18,5%) Over 50 years old: 282 (10,8%) Excluding seasonal staff Total: 3,157 ii. Gender Male: 2,591 (22,1%) Female: 568 (28,3%) iii. Region Western Europe: 752 (20,3%) Eastern Europe: 6 (17,3%) Near and Middle East: 237 (38,5%) South America: 1,203 (24,6%) North America: 433 (31,4%) Asia Pacific: 525 (17,3%) Africa: 1 (2,1%) Excluding seasonal staff Total: 2,468 (18%) b. Total number and rate of employee turnover during the reporting period, by age group, gender and region. i. Age group Under 30 years old: 866 (36,6%) 30 - 50 years old: 1,141 (13%) Over 50 years old: 461 (17,7%) ii. Gender Male: 2,032 (17,3%) Female: 436 (21,7%) iii. Region Western Europe: 849 (22,9%) Eastern Europe: 2 (2,9%) Near and Middle East: 13 (2,1%) South America: 1072 (22%) North America: 338 (24,5%) Asia Pacific: 193 (6,4%) Africa: 1 (2,1%)
GRI-401-3	Parental leave	—	b. Total number of employees that took parental leave, by gender. Total: 53 (Male: 30 (56,6%); Female: 23 (43,4%)) c. Total number of employees that returned to work in the reporting period after parental leave ended, by gender. Total: 49 (Male: 26 (88,5%); Female: 23 (82,6%)) d. Total number of employees who returned to work after parental leave ended were still employed 12 months after their return, by gender. Total: 45 (Male: 19 (42,2%); Female: 26 (57,8%)) e. Return to work and retention rates of employees that took parental leave, by gender. Return to work rate: Total: 49 (Male: 26 (53%); Female: 23 (47%)) Retention rate: see GRI401-3 c
Occupational Health & Safety 2018			
GRI-3-3	Management of material topics	74	All RHI Magnesita employees and contracted workers under direct control as well as contracted workers without direct control considered. For 2022, Health &Safety data are partially considering the acquisitions; only Sörmaş. Other sites are starting the integration of data reporting.
GRI-403-1	Occupational Health & Safety Management System	74	Occupational Health & Safety is part of RHI Magnesita's Integrated Management System (IMS) with respective policy and procedures. ISO45001 certifications based on this MS ongoing (three more plants achieved ISO45001-certification in 2022).
GRI-403-2	Hazard identification, risk assessment, and incident investigation	—	Global procedure for hazard identification and risk assessment as part of IMS implemented. For incident investigations the methodology of 5-Whys and Fishbone are in use.
GRI-403-3	Occupational Health Services	—	By fulfilling local legal obligations and the respective RHIM procedure for Hazard Identification/Risk Assessment the participation of Occupational Physicians is obligatory.

Specific Standard Disclosures/Key RHI Magnesita Topics		Location/Page Annual Report 2022	Additional Content
Disclosure number	Description		
GRI-403-4	Worker participation, consultation, and communication on occupational health and safety	—	For global aspects to be considered as well as for local, detailed information RHIM provides Safety boards, daily/weekly safety talks, participation of workforce-representatives in Safety Committees (also represented at the CSC — Corporate Sustainability Committee).
GRI-403-5	Worker training on occupational Health & Safety	74	Beside legally required trainings for specific tasks and exposures, all persons visiting our operational sites need to participate in a standardised basic Safety-training.
GRI-403-6	Promotion of worker health	74	RHIM provides in every location a set of health promotion offers and activities for which the participation rate for employees is measured.
GRI-403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	—	RHIM performs onsite services (OSS) at customer operational facilities for which the same global requirements as per IMS (integrated management system) apply.
GRI-403-8	Workers covered by an occupation Health & Safety Management System	—	All RHI Magnesita employees and contracted workers under direct control as well as contracted workers without direct control considered.
GRI-403-9	Work-related injuries	74	RHI Magnesita reports in particular on frequency-rates based on 200,000 hours worked, considering the LTI — Lost Time Injuries (41 cases for 2022) and TRI — Total Recordable Injuries (109 cases for 2022), — including employees and non-employees (temporary workers/leased personnel, contractors). The reporting of high-consequence incidents as defined by GRI will be adopted in future.
Diversity and equal opportunity 2016			
GRI-3-3	Management of material topics	73	• Base year: 2018 • Focus on Gender Diversity (Board and senior levels)
GRI-405-1	Diversity of governance bodies and employees	73	a. Percentage of individuals within organization's governance bodies in each of the following diversity categories: i. Gender Executive Management Team (including the Executive Directors): Male: 5 (71%) Female: 2 (29%) ii. Age group: under 30 years old, 30-50 years old, over 50 years old Under 30 years old: 2,363 (17%) 30 - 50 years old: 8,767 (64%) Over 50 years old: 2,601 (19%) b. Percentage of employees per employee category in each of the following diversity categories: i. Gender Male: 11,721 (85%) Female: 2,010 (15%) Salaried staff: Male: 5,146 (75%); Female: 1,651 (25%) Wage earners: Male 6,575 (95%); Female: 359 (5%) ii. Age group: under 30 years old, 30-50 years old, over 50 years old; Salaried staff: Under 30 years old: 1,345 (19%); 30-50 years old: 4,304 (62%); over 50 years old: 1,285 (19%) Wage earners: Under 30 years old: 1,018 (15%); 30-50 years old: 4,463 (66%); over 50 years old: 1,316 (19%)
Non-discrimination 2016			
GRI-3-3	Management of material topics	—	The Code of Conduct of an organisation covers the topic of human rights, such as non-discrimination, prohibition of child or forced labour. RHIM's Code of Conduct is available in 11 different languages and was last reviewed in November 2022. In addition, the organization provides a whistleblowing hotline and other reporting channels for employees and third parties to report any violations of the Code of Conduct. All reports are investigated by the Internal Audit, Risk & Compliance department.
GRI-406-1	Incidents of discrimination and corrective actions taken	—	One incident was reported in 2022 via our whistleblowing channels which proved to be unsubstantiated.
Local communities 2016			
GRI-413-1	Operations with local community engagement, impact assessments, and development programmes	75-77	Acquisitions conducted in 2022 are not included.
Supplier Social Assessment 2016			
GRI-414-1	New suppliers that were screened using social criteria	63	Partially reported

Our performance in ESG rankings

AA	Gold
MSCI	ecovadis
Prime C+	A-
ISS ESG	CDP DISCLOSURE INSIGHT ACTION

ESG ratings

The Group's strong commitment to sustainability is reflected in the ESG ratings that RHI Magnesita scored in 2022. A rating of "A-" was awarded by CDP, which is in the Leadership band. This is higher than the Europe regional average of B, and higher than the global average of C. RHI Magnesita rated "AA" from MSCI and "Gold" for EcoVadis, with an overall ESG score of 69 out of 100.

EU Taxonomy

The EU Taxonomy Regulation ("EU Taxonomy") applies in respect of the financial year to 31st December 2022 and requires the Group to report annually on the proportion of its turnover, operating expenditure and capital expenditure attaching to economic activities that are considered to be environmentally sustainable.

The EU Taxonomy identifies the six environmental objectives: climate change mitigation; climate change adaptation; the sustainable use and protection of water and marine resources; the transition to a circular economy; pollution prevention and control; and the protection and restoration of biodiversity and ecosystems. In respect of the 2022 financial year, the Group, RHI Magnesita has reviewed its activities that qualify as environmentally sustainable according to the EU Taxonomy Regulation. These activities are eligible and aligned according to the published technical screening criteria for climate change mitigation and adaptation.

As no sector-specific guidance for the refractory industry has been published yet and therefore the Group is required to use its own judgement against the eligibility criteria.

The NACE (the statistical classification of economic activities in the European Community) codes most closely describing the activities of the Company are "23.20 Manufacture of refractory products" and "08.99 Other mining and quarrying". These NACE codes are not listed in Annex I or Annex II of the Taxonomy Regulation, but certain activities carried out by the Group do meet the definitions of economic activities listed in Annex I of the Regulation. As elaborated further by the Commission on Taxonomy, if the NACE code of an economic activity is not mentioned in the Climate Delegated Act, but the economic activity corresponds to the description of the activity, it can qualify as Taxonomy eligible.

The EU Taxonomy distinguishes between taxonomy eligibility and taxonomy alignment. An economic activity can be considered eligible if it is listed in the Annex I or Annex II. However, in order to be considered "aligned", further technical criteria must be met. This requires a further assessment of the eligible activities identified. This involves evaluating the Technical Screening Criteria (TSC) and the Do-No-Significant-Harm criteria (DNSH) for each of the environmental objectives associated with the relevant business activities, as well as assessing the Minimum Social Safeguards (MSS) at the corporate level. The overall aim of this process is to establish the taxonomy-eligibility and alignment and to gather evidence of the substantial contribution.

The EU Taxonomy Alignment refers to the process of aligning the EU's Taxonomy Regulation with existing and proposed national and international sustainable finance initiatives.

Accounting policy

RHI Magnesita N.V. prepares consolidated financial information in accordance with generally accepted accounting principles under IFRS, as adopted by the EU and the financial information for turnover, operating expenditure and capital expenditure presented under the EU Taxonomy has been prepared under the same accounting principles.

Taxonomy eligible activities of RHI Magnesita referring to the activities of Annex I and II

Economic activities of RHI Magnesita that are described in Annex I and II of the Delegated Regulation (EU) 2021/2139, are considered eligible. In the case of RHI Magnesita, the following activities are considered relevant:

- Manufacture of other low carbon technologies.
- Material recovery from non-hazardous waste.
- Close to market research, development and innovation.

Manufacture of other low carbon technologies

The economic activity "Manufacture of other low carbon technologies covers the "Manufacture of technologies aimed at substantial GHG emission reductions in other sectors of the economy".[1]

EAF refractories

RHI Magnesita provides refractory products specifically designed for EAFs. Additionally, RHI Magnesita provides heat management solutions and services to its customers to reduce their GHG emissions,including digital solutions as well as advanced refractory products.

EAFs are a vital enabling technology for the reduction of CO_2 emissions in the steel industry. EAFs can be powered using electricity sourced partially or wholly from renewable electricity and replace the BOF phase of the traditional integrated steel manufacturing process, which pairs a blast furnace with a BOF and is highly CO_2 intensive. To replace a BOF, EAF steelmaking requires scrap steel, and a source of virgin iron like DRI or pig iron produced from the reduction of iron ore. EAF steel-making requires a source of scrap steel or sponge iron produced from the reduction of iron ore.

DRI using elevated levels of or exclusively hydrogen is a new technology under development that seeks to eliminate CO_2 emissions from the reduction of iron ore in blast furnaces using coke. If sufficient quantities of hydrogen manufactured from renewable sources can be accessed and if a DRI furnace can be paired with an EAF for the second stage of the steelmaking process that is also powered by renewable energy, CO_2 emissions from steel production can be largely eliminated. A key limiting factor for increased DRI production is currently the availability of suitable iron ore, as DRI production requires highest quality iron ore pellets while blast furnaces can consume almost any kind of iron ore facing no restrictions.

RHI Magnesita has a leading market position in EAF-specific refractories, services and heat management solutions, in part due to the unique chemical composition of the Group's

1. RHI Magnesita offers products and services which help to make CO_2-intensive processes in the steel industry more efficient and therefore achieve emissions reductions in the global steel industry.

vertically integrated raw material supply. EAF refractories produced by RHI Magnesita directly enable substantial reductions in CO_2 emissions at steel plants, if the EAF output is displacing steel that would otherwise have been produced using a blast furnace and BOF.

Digital solutions and other products that increase energy efficiency

RHI Magnesita offers digital solutions and associated physical equipment which achieve CO_2 emissions reductions through process efficiencies, such as wear monitoring and gunning repairs to extend the safe working life of refractory linings. Safely extending the working life of refractory linings can achieve significant energy savings for steel producers by reducing the number of heating and cooling cycles required per unit of steel output.

The Group also offers advanced refractory products which enable its customers to substantially reduce GHG emissions by reducing electricity consumption, improving yield and reducing oxygen consumption, saving up to 13kg CO_2 per tonne of steel produced.

Other solutions and products which directly contribute to CO_2 emissions reductions at customer sites include cold setting mixes, EAF direct purging plugs and converter inert gas purging.

Material recovery from non-hazardous waste

Material recovery from non-hazardous waste covers the “construction and operation of facilities for the sorting and processing of separately collected non-hazardous waste streams into circular raw materials involving mechanical reprocessing, except for backfilling purposes.”

RHI Magnesita increased its SRM input to 10% of raw material used in production of refractories. As part of this effort, RHI Magnesita operates facilities for the sorting and processing of spent refractories from customers' industries. Circular raw materials which are mechanically processed by RHI Magnesita and transformed from waste to raw material are eligible for consideration under the EU Taxonomy, whilst circular raw material processed by a third party and purchased externally by the Group are non-eligible.

Close to market research, development and innovation

Close to market research, development and innovation covers “research, applied research and experimental development of solutions, processes, technologies, business models and other products dedicated to the reduction, avoidance or removal of GHG emissions (RD&I) for which the ability to reduce, remove or avoid GHG emissions in the target economic activities has at least been demonstrated in a relevant environment, corresponding to at least Technology Readiness Level (TRL) 6”.

RHI Magnesita conducts close to market research, development and innovation among others to directly avoid GHG emissions (e.g. research on chemically bonded bricks which do not need firing in kilns) or which support other eligible economic activities (e.g. material recovery from non-hazardous waste). These R&D activities may be included in the operating expenditure of the other eligible economic activity and are therefore excluded to prevent double counting.

KPIs

Share of Taxonomy eligible revenue, operating expenditure and capital expenditure — Climate change mitigation:

Turnover

The turnover KPI is calculated as the ratio of turnover associated with taxonomy-eligible economic activities in the reporting period to total turnover in that period. The total turnover of the financial year 2022 of €3,317 million forms the denominator of the turnover key figure and can be taken from the consolidated income statement on **page 27** of this Annual Report.

The following eligible activities have been identified as relevant in view of turnover:

- Manufacture of other low carbon technologies.
- Material recovery from non-hazardous waste.

The total turnover reported in the consolidated income statement is analysed across all Group Companies to assess whether it is associated with taxonomy-eligible activities. A detailed analysis of the items included in the total turnover is used to allocate the respective turnover to the taxonomy eligible activities.

Capital expenditure

The capital expenditure KPI indicates the proportion of capital expenditure that is either related with taxonomy-aligned economic activities, or related to the purchase of outputs and products from taxonomy-aligned economic activities. There is neither a capex plan to expand RHI Magnesita's Taxonomy-aligned economic activities nor to upgrade Taxonomy-eligible economic activities to render them Taxonomy-aligned.

The following eligible activities have been identified as relevant regarding the capital expenditure KPI:

- Manufacture of other low carbon technologies.
- Material recovery from non-hazardous waste.
- Close to market research, development and Innovation.

The project descriptions of the additions of assets in the reporting year served as a basis for the necessary identification.

The sum of these identified additions of assets in the reporting year equals the numerator of taxonomy-aligned capital expenditure. The total capital expenditures in line with point 1.1.2.1. Annex 1 of the Disclosure Delegated Act equal the denominator.

Total capex consists of additions to tangible and intangible fixed assets during the financial year, before depreciation, amortisation and any re-measurements, including those resulting from revaluations and impairments, as well as excluding changes in fair value. It includes acquisitions of tangible fixed assets (IAS 16), intangible fixed assets[2] (IAS 38), right-of-use assets (IFRS 16) and investment properties (IAS 40). Additions resulting from business combinations are not included.

Operating expenditure

The denominator of the operating expenditure KPI shall cover direct non-capitalised costs that relate to R&D, building renovation measures, short-term lease, maintenance and repair, and any other direct expenditures relating to the day-to-day servicing of assets of property, plant and equipment by the undertaking or third party to whom activities are outsourced that are necessary to ensure the continued and effective functioning of such assets.

The numerator equals to the part of the operating expenditure included in the denominator related with taxonomy-aligned economic activities or related to the purchase of outputs and products from taxonomy-aligned economic activities.

The following eligible activities have been identified as relevant regarding the operating expenditure KPI:

- Manufacture of other low carbon technologies.
- Material recovery from non-hazardous waste.
- Close to market research, development and innovation.

For the identification of relevant operating expenditure, costs including direct noncapitalised costs that relate to R&D as well as maintenance and repair have been considered.

Avoidance of double counting

To avoid double counting, data sources for the various reported items are individually crosschecked to identify overlapping classifications.

Where double counting is identified, overlapping data is removed from the eligible amount.

1. For more information, see Notes 19.
2. For more information, see Notes 18.

Appendices
continued

Material areas identified for removal of double counting are as follows:

- Revenue from EAF (manufacture of other low carbon technologies); and
- Revenue from recycling (material recovery from non-hazardous waste.

Taxonomy aligned activities of RHI Magnesita referring to the activities of Annex I and II

For the eligible economic activities of RHI Magnesita previously described, the following activities are considered aligned:

- Manufacture of other low carbon technologies.
- Material recovery from non-hazardous waste.

Concerning Close to market research, development and innovation activities, an internal assessment identified that figures were not material for the FY2022 and therefore the alignment assessment had not been performed.

In respect to alignment criteria, RHI Magnesita considered its activities under "Material recovery from non-hazardous waste" aligned because for each raw material recovery site, monthly yield reports demonstrate a constant yield above 50% which fulfil the alignment criteria.

In respect to "Manufacture of other low carbon technologies", RHI Magnesita could demonstrate CO_2 emission reductions for those who use its EAF products, solutions, and digital solutions.

Does Not Significant Harm (DNSH)

To fulfil the DNSH criteria for the identified taxonomy-eligible economic activities, corresponding analyses and surveys were carried out in accordance with (EU) 2021/2139 to establish taxonomy alignment.

For the economic activity Manufacture of other low carbon technologies (3.6) the following DNSH criteria need to be met: climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control and protection and restoration of biodiversity and ecosystems.

For the economic activity Material recovery from non-hazardous waste (5.9), the DNSH criteria to climate change adaptation and to protection and restoration of biodiversity and ecosystems need to be met.

DNSH to climate change adaptation

Activities 3.6 and 5.9

For the climate risk and vulnerability analysis for objective 2 "climate change adaptation", potential climate hazards were analysed and assessed for their risk potential in accordance with the requirements of Appendix A (EU) 2021/2139, RHI Magnesita conducted climate risk assessment considering both physical and transitional climate risks aligned with TCFD. Two climate scenarios (representative concentration pathways 2.6, and 8.5) were considered based on the Intergovernmental Panel on Climate Change Fifth Assessment Report and the International Energy Agency ("IEA") Sustainable Development Scenario. The results of the assessment indicated that the impact for physical risks is limited.

DNSH to sustainable use and protection of water and marine resources

Activity 3.6

For objective 3 "sustainable use and protection of water and marine resources", appendix B of Regulation (EU) 2021/2139 was relevant. To fulfil the DNSH criteria, RHI Magnesita conducted a water scarcity risk assessment covering all operational sites. The assessment showed that 10 operations are in locations at risk of water scarcity. For these operations, water management actions have been developed which follow local requirements on water such as ground water level monitoring, water withdrawal limits, and affected sites take water management actions to reduce water consumption.

DNSH to transition to a circular economy

Activity 3.6

The economic activities at RHIM falling into the category of "Manufacture of other low carbon technologies" are mainly the production of refractory products for EAF which are designed for durability. Electric Arc Furnaces (EAF) is a prerequisite for the recycling of steel and other metals. Furthermore, RHIM has made the use of secondary raw materials in its own production as well as recycling a strategic priority, so the DNSH-criteria of objective 4 "transition to a circular economy" are in our business model.

DNSH to pollution prevention and control

Activity 3.6

To meet the requirements for the DNSH criteria of objective 5 "pollution prevention and control", a survey and analysis of the substances listed in Appendix C of Regulation EU 2021/2139 were carried out. RHI Magnesita is fulfiling all requirements for substances and mixtures referred to in appendix C (persistent organic pollutants, mercury, substances that deplete the ozone layer, hazardous substances in electrical and electronic equipment and substances in REACH regulation).

DNSH to protection and restoration of biodiversity and ecosystems

Activities 3.6 and 5.9

The requirements for Objective 6 "Biodiversity" according to Appendix D of Regulation (EU) 2021/2139 are ensured due to the legal framework within the EU. For sites outside the EU, the national legal framework was analysed. RHI Magnesita considers its mining sites as the part of the production process with the highest potential for adverse effects on biodiversity. Therefore, the assessment focuses on mining sites. For all RHI Magnesita's mining sites an environmental impact screening has been conducted. Out of the six mining sites. The mining sites operate within or near IUCN category Ia, II, IV, VI and unclassified (Natura 2000) protected areas. All mining sites fulfil general environmental protection requirements in line with legal requirements. Activity 5.9 Material recovery from non-hazardous waste replaces virgin materials with secondary raw materials; thus, contributes in an effective way to reduce the environmental impact associated with raw material extraction.

Minimum Social Safeguards

To ensure compliance with minimum social safeguards RHI Magnesita established a due diligence process. According to Art. 8 (EU) 2020/852, the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Right were considered by RHI Magnesita.

In 2022, RHI Magnesita adopted a Human Rights Policy. Additionally, the Group revised its Code of Conduct, instituted a global Anti-Discrimination and Anti-Harassment Policy. Our Code of Conduct is available in 11 languages on the internet, intranet, and Compliance Portal. We also update our Anti-Slavery Statement annually and publish it on the RHIM website. We are committed to having our suppliers adhere to the same principles as outlined in our Supplier Code of Conduct, which includes laws related to the protection of human rights. Furthermore, RHI Magnesita has implemented processes to continuously screen business partners in high-risk countries for compliance with fundamental human and labour rights. RHI Magnesita has established an independent whistleblowing hotline and web-based system, which allows both employees and third parties to make reports anonymously. Additionally, other reporting channels are available. All cases reported are investigated by IA, R&C in conjunction with other relevant departments. Moreover, all sales agents must have a Trace certification, which is updated annually and includes a reputational screening that can detect any human rights violations that may have occurred.

With all these measures, RHI Magnesita ensures compliance with the minimum safeguards for itself and its suppliers, and processes are implemented to become aware of suspicious cases of human rights violations, corruption, and bribery and to be able to react accordingly.

Taxonomy disclosure table

Turnover				Substantial contribution criteria					
Economic activities	Code(s)	Absolute turnover	Proportion of turnover	Climate change mitigation	Climate change adaptation	Water and maritime resources	Circular Economy	Pollution	Biodiversity and ecosystems
A. Taxonomy-eligible activities									
A.1 Environmentally sustainable activities (Taxonomy-aligned)									
Manufacture of other low carbon technologies	3.6	€556,524,461	16.8%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Material recovery from non-hazardous waste	5.9	€63,191,061	1.9%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Turnover of environmentally sustainable activities (Taxonomy-aligned)		€619,715,522	18.7%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)									
Close to market research, development, innovation	9.1	€–	0%						
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		€–	0%						
Total A.1 + A.2		€619,715,522	18.7%						
B. Taxonomy non-eligible activities		€2,697,454,640	81.3%						
Total A+B		**€3,317,170,162**	**100.0%**						

opex				Substantial contribution criteria					
Economic activities	Code(s)	Absolute opex	Proportion of opex	Climate change mitigation	Climate change adaptation	Water and maritime resources	Circular Economy	Pollution	Biodiversity and ecosystems
A. Taxonomy-eligible activities									
A.1 Environmentally sustainable activities (Taxonomy-aligned)									
Manufacture of other low carbon technologies	3.6	€16,485,870	12.5%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Material recovery from non-hazardous waste	5.9	€1,875,900	1.4%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Opex of environmentally sustainable activities (Taxonomy-aligned)		€18,361,770	13.9%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)									
Close to market research, development, innovation	9.1	€1,312,216	1.0%						
Opex of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		€1,312,216	1.0%						
Total A.1 + A.2		€19,673,986	14.9%						
B. Taxonomy non-eligible activities		€112,058,281	85.1%						
Total A+B		**€131,732,267**	**100.0%**						

capex				Substantial contribution criteria					
Economic activities	Code(s)	Absolute capex	Proportion of capex	Climate change mitigation	Climate change adaptation	Water and maritime resources	Circular Economy	Pollution	Biodiversity and ecosystems
A. Taxonomy-eligible activities									
A.1 Environmentally sustainable activities (Taxonomy-aligned)									
Manufacture of other low carbon technologies	3.6	€5,329,175	2.7%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Material recovery from non-hazardous waste	5.9	€741,000	1.9%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Capex of environmentally sustainable activities (Taxonomy-aligned)		€9,070,175	4.6%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)									
Close to market research, development, innovation	9.1	€445,630	0.2%						
Capex of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		€445,630							
Total A.1 + A.2		€9,515,805	4.8%						
B. Taxonomy non-eligible activities		€187,884,195	95.2%						
Total A+B		**€197,400,000**	**100.0%**						

Taxonomy disclosure table continued

Economic activities	DNSH criteria ('Does Not Significantly Harm') Climate change mitigation	Climate change adaptation	Water and maritime resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy aligned proportion of turnover year 2022	Taxonomy aligned proportion of turnover year 2021	Category (enabling activity)	Category (transitional activity)
A. Taxonomy-eligible activities											
A.1 Environmentally sustainable activities (Taxonomy-aligned)											
Manufacture of other low carbon technologies		Y	Y	Y	Y	Y	Y	16.8%		E	
Material recovery from non-hazardous waste		Y	Y	Y	Y	Y	Y	1.9%		E	
Turnover of environmentally sustainable activities (Taxonomy-aligned)								18.7%			
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)											
Close to market research, development, innovation										E	
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)											
Total A.1 + A.2								18.7%		100.0%	
B. Taxonomy non-eligible activities											
Total A+B											

Economic activities	DNSH criteria Climate change mitigation	Climate change adaptation	Water and maritime resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy aligned proportion of Opex year 2022	Taxonomy aligned proportion of Opex year 2021	Category (enabling activity)	Category (transitional activity)
A. Taxonomy-eligible activities											
A.1 Environmentally sustainable activities (Taxonomy-aligned)											
Manufacture of other low carbon technologies		Y	Y	Y	Y	Y	Y	12.5%		E	
Material recovery from non-hazardous waste		Y	Y	Y	Y	Y	Y	1.4%		E	
Opex of environmentally sustainable activities (Taxonomy-aligned)								13.9%			
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)											
Close to market research, development, innovation										E	
Opex of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)											
Total A.1 + A.2								14.9%		100%	
B. Taxonomy non-eligible activities											
Total A+B											

Economic activities	DNSH criteria Climate change mitigation	Climate change adaptation	Water and maritime resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy aligned proportion of Opex year 2022	Taxonomy aligned proportion of Opex year 2021	Category (enabling activity)	Category (transitional activity)
A. Taxonomy-eligible activities											
A.1 Environmentally sustainable activities (Taxonomy-aligned)											
Manufacture of other low carbon technologies		Y	Y	Y	Y	Y	Y	2.7%		E	
Material recovery from non-hazardous waste		Y	Y	Y	Y	Y	Y	1.9%		E	
Capex of environmentally sustainable activities (Taxonomy-aligned)								4.6%			
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)											
Close to market research, development, innovation										E	
Capex of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)											
Total A.1 + A.2								4.8%		100%	
B. Taxonomy non-eligible activities											
Total A+B											

EU Taxonomy reporting in the year to 31 December 2022

RHI Magnesita commissioned Deloitte Audit Wirtschaftsprüfungs GmbH for an independent third-party limited assurance engagement on the non-financial report for the year ended 31 December 2022, according to Dutch transposition of the NFI-Decree, the Taxonomy Regulation ((EU) 2020/852) and GRI Standards. For more information, click **here** for more details on the assurance process and conclusions.

Task Force on Climate-Related Financial Disclosures (TCFD)

Introduction

RHI Magnesita is committed to being transparent about its climate-related risks and opportunities. In line with this commitment, we support the Task Force on Climate-related Financial Disclosures (TCFD) and the EU Taxonomy. We have made it a priority to identify, evaluate, and manage climate-related risks and opportunities, and we are always striving to improve our process while providing essential information to our stakeholders to make informed decisions.

RHI Magnesita has reported according to the TCFD Recommendations since 2019 and has updated its climate related risk assessment and enlarged its disclosure in 2022.

The TCFD Recommendations are the world's most commonly accepted standard for disclosing climate-related risks and opportunities. They focus on four key pillars of Governance, Strategy, Risk Management and Metrics and Targets.

Table 1. TCFD Recommendations

Pillar of TCFD Recommendations	Description	
Governance	• Describe the Board's oversight of climate related risks and opportunities	Page 90
	• Describe the management's role in assessing and managing climate related risks and opportunities	Page 90
Strategy	• Describe the climate -related risks and opportunities the organisation has identified over the short, medium and long term	Page 91
	• Describe the impact of climate-related risks and oportunities on the organisation's business, strategy and financial planning	Page 91
	• Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	Page 91
Risk Management	• Describe the organisation's processes for identifying and assessing climated-related risks	Page 91
	• Describe the organisation's processes for managing climate-related risks	Page 92
	• Describe how processes for identifying, assessing and managing climated-related risks are integrated into the organisation's overall risk management	Page 92
Metrics and Targets	• Disclose the metrics used by the organisation to assess climate related risks and opportunities, in line with its strategy and risk management process	Page 93
	• Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	Page 93
	• Describe the targets used by the organisation to manage climate-related risks, opportunities and performances against targets	Page 93

Climate Governance

Appendices
continued

Board oversight

The Board of RHI Magnesita guides the development of our strategy and appetite towards risk. It also has oversight of other material matters such as regulatory developments or reputational and financial topics. Responsibility for and oversight of climate-related risks and opportunities has been assigned to the Corporate Sustainability Committee (CSC).

The Chairman of the Committee, who is responsible for overseeing RHI Magnesita's climate strategy, engages directly with RHI Magnesita managers and employees on climate topics as required between the regular Committee meetings. Certain members of the Executive Management Team regularly attend the Committee meetings. The Committee Chairman reports to the Board on climate-related matters on a regular basis. The CSC regularly reviews climate risks and opportunities, strategy and performance, while the Remuneration committee reviews and approves bonus payment linked to climate. Climate-related progress is discussed at every CSC meeting, with the Chair engaging directly with those driving the CO_2 strategy in between CSC meetings as needed. Recommended disclosures are presented on Table 1. The Audit & Compliance Committee oversees any material ESG risks, including climate-related risks.

Management

At Management level, in the C-Suite, the CTO reports regularly to both the CEO and Board CSC on a quarterly basis and anytime in-between as necessary. The CTO is also on the Executive Management Team. He directly oversees the development of the company's CO_2 strategy and its implementation across the organization. The Global Sustainability Team reports to CTO and manages and facilitates sustainability across RHI Magnesita.

Driven by our Board and led by our Executive Management Team, we engage widely with stakeholders, investigate risks, and identify opportunities aligned with our ambitious strategy. Our climate governance is outlined on the Figure 1.

In 2022 we further integrated carbon considerations into key processes:

- A new internal pricing mechanism was introduced to incentivise sales teams to prioritise products with higher recycled content
- 25% of the Long-Term Incentive Plan (LTIP) payout criteria is linked to the Group's target to reduce CO_2 emissions per tonne against 2018 baseline year
- Increase the use of secondary raw material accounts for 10% of the annual bonus for all eligible employees
- Enhanced monthly monitoring of CO_2 emissions (Scope 1 and 2) was integrated into the Group's enterprise resource planning tool.

In addition to that, we are currently implementing a more structured approach to engage with suppliers to fully integrate sustainability considerations — including climate change — into our procurement process.

Our goal is that by 2025 two-thirds of our suppliers will be rated by EcoVadis. Using the Carbon Action Scorecard of EcoVadis we are provided with a maturity status of a prospective supplier regarding carbon management and mitigation. Engagement on the subject of emissions also highlights to potential suppliers that reducing CO_2 is a key priority for the Group, which is expected to drive changes in supplier behaviour and energy use in the long term.

Climate strategy

Driving down carbon emissions is a key priority for RHI Magnesita. Besides mapping out our own transition path, we would like to be a reliable ally to our customers as they venture into a carbon-reduced economy.

The Group's emission reduction plans target a 15% reduction in CO_2 emissions intensity for Scope 1, 2 and 3 (raw materials) emissions by 2025, compared to 2018. Our climate strategy is based on:

1) reducing the carbon footprint of our raw materials, including through the increased use of circular raw materials;
2) increasing energy efficiency in our operations;
3) reducing the carbon intensity of our energy sources; and
4) providing innovative solutions to reduce customer emissions.

All risks and opportunities were assessed in a qualitative scenario analysis, and the most material climate-related risks and opportunities (those with an inherent risk or opportunity rating of 'high') underwent quantitative scenario analysis to help better estimate the potential financial impact on the business.

For our analysis, we used two climate scenarios to understand the potential range of impacts we face. The climate scenarios considered are based on the Intergovernmental Panel on Climate Change Fifth Assessment Report. and the International Energy Agency ("IEA") Sustainable Development Scenario. The scenarios consider greenhouse gas concentration trajectories in the atmosphere and relate to a below 2°C temperature increase, and above 4°C temperature increase in the global average surface temperature in 2100.

- Below 2°C increase (RCP 2.6): Based on the Intergovernmental Panel on Climate Change ("IPCC") Shared Socio-economic Pathway (SSP) 1 — 2.6 and the International Energy Agency ("IEA") Sustainable Development Scenario. This scenario assumes a gradual buildup of climate policies over time and predicts that through the implementation of moderate mitigation measures, global net zero emissions can be achieved by 2070.
- Hot house World (RCP 8.5): Associated with approximately 4 degrees of global warming, based on the IPCC's SSP 5 — 8.5 scenario. This scenario assumes that without actions to limit emissions, it is likely the rise of temperature, leading to a variety of physical risks and substantial impacts.

We have conducted our analyses across three different time horizons. The short-term (2025) sits within our short-term business plan, while the medium (2030) and long-term (2050) time horizons are oriented towards the broader international policy developments, including the Paris Agreement and the EU Green Deal.

Having reviewed the analysis, the Corporate Sustainability Committee believes the Group is well positioned to mitigate the risks and embrace the opportunities associated with the climate-change related developments across both scenarios. These could range from disruptive regulatory developments, physical hazards for our operations or new business opportunities. The Group believes that through monitoring market developments and enhancing its business adaptability and planning, RHI Magnesita can maintain a strong level of climate resilience over the short, medium and long-term across both scenarios. We remain committed to supporting our customers' decarbonisation efforts as well as actively managing our own climate-related risks and opportunities.

Climate risks management

The Group has an established risk management approach with the objective of identifying, assessing, mitigating, monitoring and reporting uncertainties and risks that could impact the delivery of RHI Magnesita's strategy. Since the environment and climate change represents both strategic and operational risk to our business, they are considered as RHI Magnesita's principal risks (see our risk management approach on our Annual Report 2022, **page 46**). Several mitigation measures are in place to ensure that the risk is appropriately managed and within the Group's risk appetite.

Risks were grouped as physical risks and transitional risks.

Physical risks include greater severity of flooding, droughts or other extreme weather events which could disrupt our operations and supply chain.

Transitional risks range from regulatory frameworks and the rising price of carbon to the viability and customer acceptance of emerging technologies.

Our most material climate-related risks and opportunities result from disruptive regulations for CO_2 emissions reduction.

In 2022, the Group has updated the modelling and analysis of climate related transitional risks and opportunities that are foreseen to impact the Group over the short, medium, and long-term horizons. Results have shown that physical risks remained unchanged, and the impact of transitional risks was reviewed (see table 2).

Short term (2025)

Our first set of sustainability targets are planned within this timeframe. We are also actively monitoring emerging trends and opportunities that may require us to adjust our strategic plans. We are committed to staying agile and adapting our plans as needed to ensure that we remain competitive in the marketplace and continue to meet our sustainability goals, specially our 2025 climate-related target (for more information, see our Annual Report, 2025 Targets, **page 61**).

Medium term (2030)

This is the most likely horizon for the regulatory frameworks (such as the EU Emissions Trading System and Carbon Border Adjustment Mechanism) currently set to come into force in a three years transition period, and set to be expand to all sectors within EU ETS by 2030 thus having partial effect due to the gradual phase out of free allocations. We are anticipating and considering major adjustments to our industrial footprint.

Table 2. Climate-related transitional risks and opportunities

Climate drivers	Risk/Opportunity	Category	Impact (see reference table)	RHI Magnesita response and strategy	Main affected Time Horizon	Related metrics and targets
Policy-making & Regulatory pressure	Carbon Pricing	Risk	RHI Magnesita foresees an impact due to the increase in operating costs because of increase in level or scope of carbon pricing ●●●●●	• The Group integrates carbon permit price projections into its financial planning and has a hedging programme in place to fix future exposures • We are developing new technologies, such as carbon capture and utilisation/storage to reduce our emissions, investing €50 million in research and development of these solutions • The Group aims to increase the use of secondary raw materials which will reduce CO_2 emissions compared to the mining or purchase of fresh raw material • We will continue to invest in fuel switching, renewable energy and energy efficiency as additional methods to reduce our carbon intensity	Medium-Long Term	We have set a 15% emissions intensity reduction target by 2025 on a 2018 baseline of Scope 1, 2 and 3 raw materials emissions. By the end of 2022, our emissions intensity was 8% lower than the 2018 baseline
Market & Customers	Increased demand for the Group's products arising from the development of or transition to lower-carbon emitting industrial processes by our customers	Opportunity	RHI Magnesita foresees a low financial impact regarding the increased demand from customers for refractory products that help them reduce their emissions is considered low (e.g. EAF) ●●	• We are already providing our customers with refractory products that support low carbon production processes. This includes our steel and cement customers who account for 80% of our business. For example, we provide products supporting EAFs for the steel industry, which is an enabling technology for CO_2 emissions reduction • RHI Magnesita has a higher market share in lower CO_2 emitting applications (such as EAF) and a lower relative market share in high emitting applications (e.g. BOF, Blast Furnace) • We will continue to offer our low energy and carbon services and product offering including process optimisation, recycling services, coating technologies and digital solutions	Short-Medium-Long Term	Sales of refractory products supporting EAFs, associated with the lower carbon production of steel, was 552 million in 2022
Market & Customers	Increased demand for RHI Magnesita products that are produced with lower carbon footprint	Opportunity	Higher revenue due to increased demand for low-carbon (e.g. recycled) refractory products ●●●●●	• In the short term, increasing the share of SRM in our products will help us to reduce our geogenic emissions from raw materials and create attractive low-carbon products • In the longer term, if the Group is successful at developing and operating carbon capture and sequestration or utilisation technologies and switching to renewable energy sources, refractory products could be manufactured with low or potentially zero CO_2 emissions • This is expected to translate into a pricing and/or market share advantage compared to competitor products with high emissions, particularly as customers focus more on their Scope 3 emissions	Short-Medium-Long Term	• We have set a target of 10% SRM content in refractory products by 2025. We achieved 10.5% of SRM content in 2022 (2021: 6.8%) • Our target is to reduce CO_2 intensity by 15% by 2025

Opportunities			Risks		
High	>€875m		High	>€875m	
Medium	€175m-€875m		Medium	€175m-€875m	
Low	<€175m		Low	<€175m	

Appendices
continued

Long term (2050)

The deadline that has been set by the UN and many policy-making bodies to set decarbonisation goals is the year 2050. During 2021 and 2022, we completed a detailed assessment of all possible measures to reduce CO_2 emissions in our operations based on proven technology and available financial resources. Whilst it may be possible to reduce emissions in line with a "well below 2 degrees" scenario, it is our current assessment that it is not possible to set a target that is aligned with a 1.5-degree scenario which is not dependent on the development of as-yet unknown technologies or significant external financial and infrastructure support.

We are committed to reduce our carbon footprint and we will continue to monitor the variables which support this conclusion and update our transition plan accordingly if the Group's own R&D activities result in the development of new technologies that could deliver a faster reduction in CO_2 emissions that is financially achievable.

Transition-related risks and opportunities

Operating in an emissions intensive industry, it is likely that RHI Magnesita's business model will be affected by the transition to a low-carbon economy. As well as risks, there are a number of significant opportunities that the Group is well positioned to benefit from.

2022 Valuation Bridge Analysis

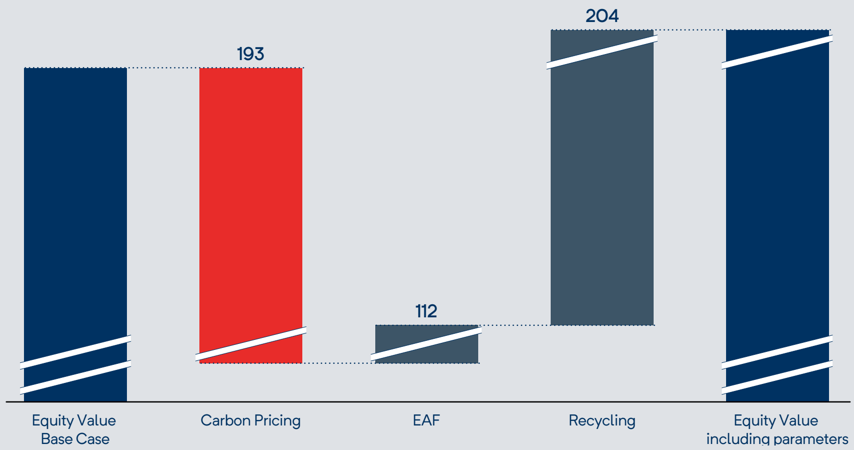


Table 2 illustrates the material climate-related risks and opportunities selected for quantitative scenario analysis.

Risks

RHI Magnesita's main risk is the additional operating expense resulting from carbon pricing developments. The financial impact of this risk has increased due to implementation of CBAM in Europe, which is an EU policy instrument designed to level the playing field for domestic producers subject to carbon pricing by implementing a carbon-based import tariff on goods from countries without equivalent carbon pricing.

The CBAM is designed to protect domestic producers from competitive disadvantages resulting from carbon pricing by making imports from countries without equivalent carbon pricing more expensive. This mechanism would help to ensure that domestic producers and consumers are not put at an economic disadvantage by having to bear the cost of carbon pricing, while their international competitors do not. The CBAM is intended to incentivise countries to adopt similar carbon pricing policies, thereby reducing the global emissions of greenhouse gases.

Table 3. Climate-related physical risks

			RCP 8.5		RCP 2.6	
Country	Plant		Likelihood	Dominant hazard	Likelihood	Dominant hazard
India	**Cuttack**	**2025**	**High**	**Riverine Flooding**	**High**	**Riverine Flooding**
		2030	**High**	**Riverine Flooding**	**High**	**Riverine Flooding**
		2050	**High**	**Riverine Flooding**	**High**	**Riverine Flooding**
France	Flaumont	2025	Moderate	Riverine Flooding	Moderate	Riverine Flooding
		2030	Moderate	Riverine Flooding	Moderate	Riverine Flooding
		2050	Moderate	Riverine Flooding	Moderate	Riverine Flooding
Mexico	Tlalnepantla	2025	Moderate	Soil Subsidence	Moderate	Soil Subsidence
		2030	Moderate	Soil Subsidence	Moderate	Soil Subsidence
		2050	Moderate	Soil Subsidence	Moderate	Soil Subsidence
Brazil	Vale do Aço	2025	Moderate	Riverine Flooding	Moderate	Riverine Flooding
		2030	Moderate	Riverine Flooding	Moderate	Riverine Flooding
		2050	Moderate	Riverine Flooding	Moderate	Riverine Flooding
Mexico	Ramos Arizpe	2025	Moderate	Soil Subsidence	Moderate	Soil Subsidence
		2030	Moderate	Soil Subsidence	Moderate	Soil Subsidence
		2050	Moderate	Soil Subsidence	Moderate	Soil Subsidence
US	Ashtabula	2025	Moderate	Forest Fire	Moderate	Forest Fire
		2030	Moderate	Forest Fire	Moderate	Forest Fire
		2050	Moderate	Forest Fire	Moderate	Forest Fire
China	Chizhou	2025	Moderate	Forest Fire	Moderate	Forest Fire
		2030	Moderate	Forest Fire	Moderate	Forest Fire
		2050	Moderate	Forest Fire	Moderate	Forest Fire

The implementation of the Carbon Border Adjustment Mechanism (CBAM) is expected to have a financial impact on the Group from 2030 onwards as free carbon allowances under EU-ETS are phased-out. This is due to levies on imported materials, which are designed to protect the EU domestic business. This is expected to increase refractory pricing for all suppliers selling into the EU. Additionally, products manufactured in the EU and then exported will incur higher costs, as there are currently no compensation mechanisms for exporters. The financial impacts of the CBAM have been included in the Group's updated TCFD modelling, resulting in impact on equity value ranging from €193 million to €320 million.

Opportunities

Two opportunities were identified (i) increased demand for products that customers will require for technology transition, e.g. EAF refractories, and (ii) increased demand for low-carbon refractory products containing recycled raw materials.

The steel industry is undergoing a decarbonisation process which is predicted to continue into 2050 and beyond. This megatrend has led to an increased demand for electric arc furnaces (EAF) and electric smelter furnaces. As the pressure to reduce carbon emissions intensifies, RHI Magnesita is well-positioned to benefit from this growing trend. With its vertically integrated model, RHI Magnesita has access to the raw material required for an electric arc furnace from its European mines in Austria, Hochfilzen and Breitenau. This gives RHI Magnesita a competitive edge and makes it the leading refractory partner of choice in the green transition of the steel industry (read more on decarbonising across industries on Annual Report 2022, **page 21**).

Besides that, in the first half of 2022, RHI Magnesita entered into a joint venture with Horn & Co. to combine their recycling activities in Europe and increase production, use and offering of secondary raw materials. This will result in a significant decrease in CO_2 emissions. The newly formed entity, MIRECO (Horn & Co. RHIM Minerals Recovery GmbH), will be positioned at the forefront of the circular economy, providing services to customers in steel, cement, glass and other process industries (read more on decarbonising our products on Annual Report 2022, **page 21**).

The net impact on equity value of these opportunities combined is +€123 million (2021: +€352 million).

Table 4. Metrics and Targets[1]

	Absolute emissions (thousand tonnes of CO_2)				
	2018	2019	2020	2021	**2022**
Scope 1	2,400	2,007	1,973	2,499	2,193
of which geogenic emissions	1,305	1,066	1,075	1,340	1,112
of which fuel-based emissions	1,045	918	873	1,146	1,082
of which other emissions	50	24	25	14	—
Scope 2	208	188	143	147	89
Scope 3 (only raw material)	2,875	2,506	2,181	2,404	1,912
TOTAL	**5,483**	**4,702**	**4,297**	**5,050**	**4,196**
Carbon Intensity (t CO_2/t product)[2]	1.90	1.89	1.97	1.85	1.75
Biogenic Scope 1 emissions	5	8	10	13	13

1. Historical CO_2 emission data were revised to reflect new acquisitions and changes that were made following an external verification process that took place in July 2022.
2. Adaptations in line with the Greenhouse Gas protocol and refinement in reporting result in updated CO_2 intensity figures for 2018-2022.

Physical-related risks and opportunities

The Group assessed its major production sites and strategic port locations across a broad range of physical climate hazards. The table 3 presents seven highest risk assets that were selected for 'deep dive' analysis. These sites remain in the 'Moderate' or 'High' VAR[1] categories across 2025, 2030 and 2050 and both scenarios. We considered the impacts including asset damage, disruption to operations and impacts on the value chain (upstream and downstream). Riverine flooding was identified to be the most dominant hazard to our portfolio in relation to value at risk of damage across both scenarios and all three-time horizons.

The results of the assessment indicated that the overall risk profile for physical risks is limited. Our current insurance coverage provides sufficient coverage for asset damage and operational disruption. The assessment did not indicate that there are likely to be any material increases in the cost or coverage of insurance in the future. The results of the assessment will be used to guide resilience building within our operations and value chain.

This assessment will be reviewed to include the new assets RHI Magnesita is acquiring during the year 2022.

Climate risks also form part of our third CDP climate submission, for which we were awarded a A-rating by CDP in December 2022.

Metrics and targets

We continue to publish our Scope 1, 2 and 3 (raw materials) GHG emissions within our Annual Report. In 2022, the Group's new product carbon footprinting methodology was independently verified and we are in the process of integrating monthly monitoring of CO_2 into the Group's enterprise resource planning tool. Reducing CO_2 emissions was introduced as a remuneration target in 2021 and now accounts for 10% of the annual bonus for all eligible employees.

In addition to that, in 2022, the Group completed a major project to increase transparency for its customers by disclosing the carbon footprint of its c.200,000 refractory products. The calculations follow the principles of ISO 14067 standard and include all scope 1 and 2 emissions, as well as relevant scope 3 emissions related to the manufacturing process (known as "cradle-to-gate" greenhouse gases from raw material extraction to production and packaging).

Tracking our progress

We use metrics and targets to track our progress in relation to our material climate-related risks and opportunities.

Outlook

We recognise the importance of understanding our risk and opportunity landscape in guiding our climate strategy. In addition to charting our own transition, we want to be a trusted partner to our customers on their journey to net zero. We will further deepen our climate-related initiatives in the coming years to help us to continue to be a sustainability leader within the sector.

1. MVAR is a measure of the annual risk of damage to an asset. The MVAR captures the costs of expected extreme weather and climate-related damage, relative to the replacement cost of the building.


RHI MAGNESITA

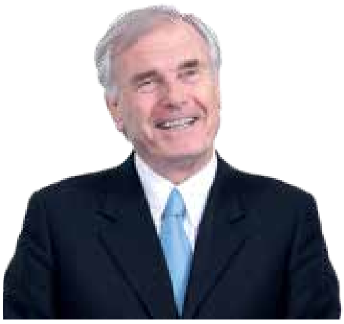
Governance

Companies do not exist in isolation.

Successful and sustainable businesses underpin our economy and society by providing employment and creating prosperity.

— Introduction, UK Corporate Governance Code, 2018

Chairman's introduction to corporate governance



Herbert Cordt
Chairman

In 2022, the Board has focused the management team on operational excellence, driving the principles of regionalisation, and engaged in deep discussion about stakeholder priorities and reflecting those in their decisions.

Dear Shareholder,

On behalf of the Board, I am pleased to present the Corporate Governance Statement for the year ended 31 December 2022, summarising the role of the Board in providing effective leadership to promote the long-term sustainable success of RHI Magnesita. I have taken the opportunity to highlight some of the key points of this section below.

Board composition

In October 2022, Fiona Paulus stepped down from the Board, having joined us in late 2018. We benefited hugely from Fiona's commercial and strategic insights over her years with us and we extend our deepest thanks for the dedication and support she showed throughout her tenure.

We continue to review the skills and experience needed on the Board, as well the diversity expectations that are important to key stakeholders and will underpin our future success. Full details of our Board and Executive succession planning and the current recruitment process for Non-Executive Directors (NEDs) can be found on **pages 121 and 123**. Board and EMT biographies are on **pages 114 to 119**.

Return to in-person meetings and site visits

As a Board, and Company, with international composition, we were seriously hampered by travel restrictions across multiple jurisdictions in 2020 and 2021. In 2022, we returned to in-person meetings for the majority of our sessions, and the Board were delighted to visit multiple sites, engaging with colleagues, observing the culture at different sites, seeing the results of Board decisions and the successes of management, as well as areas for improvement. You can read more about this on **pages 101, 102 and 112**.

Board review

Our review of 2022 is in the process of concluding, and we expect to report fully on the output in next year's reporting. In our Nomination & Governance Committee report, we outline progress made in 2022 on actions identified from prior Board effectiveness reviews. Details can be found on **pages 112, 120 and 121**.

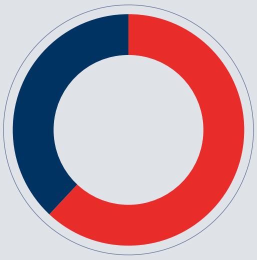
Sustainability, stakeholders, and strategy

Throughout the 2022 Board programme we continued to devote considerable time to the deliberation of the Company's strategy, particularly to assessing progress against our 2025 strategy and the execution capability required to deliver it. Through engaging in discussion with experts, the Board ensured they had the right context to make decisions and guide management.

Sustainability has been a constant seam throughout many of our conversations as a Board and also with stakeholders. It was a cornerstone of the annual strategy discussion and was discussed at nearly every Board meeting in the year, with Directors recognising it as both a risk and opportunity for the business, and our wider communities. The Corporate Sustainability Committee (CSC) has reported back to the Board on the proceedings of each of its meetings and the CSC also welcomed various Board members and key senior management as attendees to those meetings throughout the year, ensuring that conversation has been taking place at the highest levels of the organisation. Sustainability continues to be key for our strategic success and the management is focusing on how to leverage its benefits for the communities we operate in, the customers we serve and our shareholders.

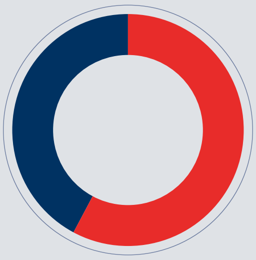
At RHI Magnesita, we recognise the role we play in the lives of our employees, customers, suppliers, shareholders, and the communities in which we operate. You can read more about our stakeholder engagement and how our understanding of stakeholder expectations feeds into our decision making on **pages 106 to 109**.

Board gender diversity[1]



- Male 67%
- Female 33%

Board independence[1]



- Independent 55%
- Not independent 45%

1 As calculated by reference to the UK Corporate Governance Code and excluding the ERDs.

Governance

In the course of 2022, we updated the scope of our Nomination Committee to become the Nomination & Governance Committee. This was to ensure that corporate governance matters, which are subject to upcoming changes in our regulatory geographies, are given chance to be well considered and recommended accordingly to the Board.

The report of our compliance in respect of each of the UK Corporate Governance Code 2018 (UKCGC) and the Dutch Corporate Governance Code 2016 (the DCGC, and together "the Codes") can be found on **pages 98 and 99**. Where we could improve our reporting in line with the DCGC issued in December 2022 we have, and we intend to report against this new Code in our 2023 Annual Report. Our compliance with the new UK Listing Rules on diversity is reported on **page 122**.

At our Annual General Meeting (AGM) in 2023, we will propose a change to the Articles of Association to give the Company flexibility should the Dutch law enabling virtual AGMs to be implemented in the future. In recent years, we have enjoyed the ability to hold our AGM virtually, seeing it as an opportunity for an efficient and cost-effective way of engaging with as many shareholders as possible, given the disparate locations of shareholders and directors. We have seen good levels of participation at these virtual AGMs and our Investor Relations team work tirelessly throughout the year to ensure there are also plenty of other opportunities for shareholders to engage with the Company. Whilst a fully virtual AGM in 2023 will not be possible, for the reasons outlined above, we will hold a hybrid meeting with limited presence in the Netherlands.

Finally, with the exception of Sigalia Heifetz, all Directors will seek re-election at our AGM on 24 May 2023 and we look forward to engaging with our shareholders at that event.

Herbert Cordt,
Chairman of the Board of Directors

Corporate governance statement

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

The Board has applied the principles of, complies with and intends to continue to comply with the requirements of both the DCGC and the UKCGC, save that the Company does not comply with Provisions 9, 19, 24, and reports partial compliance with 36, 40 and 41 of the UKCGC. The explanations are set out below.

Deviations from the UK Corporate Governance Code in 2022

Provision 9 & 19

Provision 9 states that the Chairman of the Board should be independent on appointment. The Chairman is not considered to be independent for the purposes of the UKCGC, having served on the Board for more than nine years (including time on the Board of RHI AG prior to the merger with Magnesita). This also means the Company is not compliant with Provision 19. The Board continues to see the value that Herbert Cordt brings to the Company, being most notably continuity of corporate memory which contextualises, and drives focus on, operational performance improvements through detailed organisational and business knowledge. Further positive assessment by the Board of his Chairmanship can be found on **page 121**.

Provision 24

As detailed in the 2021 report, Wolfgang Ruttenstorfer is no longer deemed to be independent under the criteria outlined in the UKCGC, as a result of his time on the Board, which includes his role on the RHI AG Supervisory Board from 2012. The Board continues to benefit greatly from Wolfgang's financial experience, the continuity he provides, his challenge to management and contributions to the Audit & Compliance Committee, and as such, Wolfgang will continue to be a member of the Committee. We have therefore decided to explain our position in respect of Provision 24 of the UKCGC.

Provisions 36, 40 and 41

Since the introduction of the current UKCGC in 2018, the Company has taken steps in order to be able to report compliance with the principles and provisions relating to remuneration. Following the publication of Financial Reporting Council (FRC) guidance in 2021 titled, "Improving the quality of 'comply or explain' reporting", we report partial compliance with Provisions 36, 40 and 41.

Provision 36

The Company consulted c.70% of its shareholder base about the current Remuneration Policy (the Policy) prior to its approval at the 2021 AGM, explicitly referring to the proposed policy for post-employment shareholding requirements, which comprises the continuation of holding periods for annual bonus shares and the LTIP post-cessation of employment. Our Policy received 95.95% support at the 2021 AGM. However, the Company notes the clarification by the FRC in 2021, specifically that it is not enough to achieve compliance with the UKCGC by including a policy that only provides for holding periods to continue post-employment.

The Board believes that its current Policy for post-employment shareholding requirements is appropriate and, with other elements of the Policy, achieves the right balance between providing a remuneration structure that is both incentivising and retentive. The Policy ensures alignment to shareholder interests and long-term sustainable performance of the business, both whilst the executives are employed by the business post-employment. In reaching this conclusion, the Board has taken into account the different elements of the Policy that together achieve these aims including post-employment holding periods for annual bonus shares and vested LTIPs, for both good and bad leavers, in-flight unvested LTIPs for good leavers, as well as shares beneficially owned by the executives.

As we review our Remuneration Policy in 2023, ready to propose to shareholders at the AGM in 2024, we will be consulting with shareholders and relevant stakeholders, ensuring that we take regulatory guidance and investors' views into consideration.

Provisions 40 and 41

The Company benefits from employee representation on the Board, and the Board annually approves executive remuneration on the recommendation of the Remuneration Committee. This provides a mechanism for our Employee Representative Directors (ERDs) to understand and engage on behalf of the workforce regarding the alignment of executive remuneration with wider Company pay policy and to provide feedback. In 2022, they met with the Chairman of the Remuneration Committee as part of their induction, which gave background to executive remuneration and outlined the key matters the Board are required to decide upon in respect of remuneration.

Our remuneration policies and practices, including our approach to salary increases and annual bonus structure, are aligned throughout the business. Given this alignment, and the extant mechanism for engagement with the ERDs, the Board is comfortable with the existing approach and does not consider it necessary to provide any additional forms of engagement with the workforce to explain how executive remuneration aligns with wider Company pay policy. The Remuneration Committee will continue to keep this under review.

Deviations from the Dutch Corporate Governance Code in 2022

The Company does not comply with best practice provision 2.2.2 of the DCGC which recommends that, in the case of a one-tier board, a Non-Executive Director should be appointed for a period of four years. The appointment of the NEDs (other than ERDs) has been made on the basis of nominations for three-year terms, subject to performance and annual re-election at the AGM. The Board considers that the three-year term is more consistent with UK listed company practice and does not compromise the spirit of the DCGC provision.

In 2022, the Company partially complied with best practice provision 4.1.8, which recommends that Directors nominated for appointment should attend the AGM at which votes will be cast for their nomination. The partial compliance is due to Sigalia Heifetz's non-attendance at the AGM at which she was proposed to be re-elected, owing to a short-notice personal matter. The Company notes this was of an incidental nature, and its policy is to fully comply with this provision, as it has done in all previous years.

As explained on **page 103**, we do not include our ERDs as part of the denominator in our Board independence calculations.

In the Company's assessment of compliance with the DCGC, the Company has used the DCGC published in 2016. The DCGC was updated in December 2022 to be reported on in the reporting period commencing 1 January 2023. In anticipation of this, the Company has assessed its compliance with the 2022 DCGC and has identified areas for focus in 2023 to ensure effective compliance and reporting in next year's report.

Corporate governance declaration

In complying with the requirements of the DCGC, the Company publishes this corporate governance statement including information relating to its compliance with the DCGC, including a further explanation of the Company's Board Diversity Policy and the way in which it is implemented in practice. The information required to be included in this Corporate Governance Statement can be found in the following sections and pages of this Annual Report (Annual Report) and are deemed to be included and repeated in this statement:

- the information concerning compliance with the DCGC can be found on **page 98**;
- the information concerning the main features of the Company's internal risk management and control systems relating to the financial reporting process can be found on **pages 46 to 49**;
- the information regarding the functioning of the General Meeting and its main authorities and the rights of the Company's shareholders and holders of depositary interests in respect of shares in the Company and how they can be exercised can be found on **pages 96 to 157**;
- the information regarding the composition and functioning of the Board and its Committees can be found on **pages 100 to 157**;

- the Diversity Policy with regard to the composition of the Board and its Committees, can be found on **page 121**; and
- the information concerning the disclosure of the following items, where they exist, may be found on **pages 99 to 113**:
  - participations in the Company for which a disclosure obligation exists;
  - special control rights attached to shares and the name of the person entitled to such rights;
  - any limitation of voting rights, deadlines for exercising voting rights and the issue of depository interests for shares with the co-operation of the Company;
  - the regulations in respect of the appointment and dismissal of Executive Directors and NEDs and amendments to the Articles of Association;
  - the powers of the Board, in particular to issue shares and to acquire own shares by the Company; and
  - the number of shares without voting rights and the number of shares that do not give any, or only a limited, right to share in the profits or reserves of the Company, with an indication of the powers which they confer.

Listing Rules information

Certain information is required to be published by the Listing Rules (LR 9.8.4 R and LR 9.8.4C R) and this information can be found in the Annual Report as set out in the table below:

	Item	Location in this Annual Report
1.	Interest capitalised	Page 190
2.	Publication of unaudited financial information	N/A
3.	Details of long-term incentive schemes	Pages 132 to 157
4.	Waiver of emoluments by a Director	N/A
5.	Waiver of future emoluments by a Director	N/A
6.	Non pre-emptive issues of equity for cash	N/A
7.	Item (6) in relation to major subsidiary undertakings	N/A
8.	Parent participation in a placing by a listed subsidiary	N/A
9.	Contracts of significance	N/A
10.	Provision of services by a controlling shareholder	Refer to Note 43
11.	Shareholder waiver of dividends	N/A
12.	Shareholder waiver of future dividends	N/A
13.	Agreements with controlling shareholders	Refer to Note 43

Major shareholdings

The Dutch Financial Supervision Act requires institutions and individuals holding a (potential) capital and/or voting interest of 3% or more in the Company, to disclose such interest to the Dutch Authority for the Financial Markets (AFM). Shareholders only have to update their filings if their capital and/or voting interest crosses the 3% or a subsequent 5% threshold.

The AFM processes these disclosures in its publicly available register, which can be found at www.afm.nl. In providing the table of shareholdings below, the Company has included the total interests registered at the AFM on 24 February 2023, or where the Company has been made aware of more up-to-date information through a direct notification by the shareholder, it has used this information. The total % of issued share capital in the table is calculated excluding treasury shares held by the Company.

These stated interests may differ from the current interests of the relevant shareholders as these interests are based on the number of shares owned at the time of the notification and are not adjusted for any purchases or sales since that date. Additionally, shareholders only have to update their filings if their capital and/or voting interest crosses the 3%, or a subsequent 5%, threshold.

There are no restrictions on voting and profit rights and no holders of any securities with special control rights. Depositary interests in respect of the Company's shares have been issued by the Company with the Company's co-operation, which can be settled electronically through, and held in the system of, CREST. The depositary interest holders hold the beneficial ownership in the shares instead of legal title. Nederlands Centraal Instituut voor Giraal Effectenverkeer B.V. (also known as Euroclear Nederland) holds the legal title to the underlying shares.

Shares may be issued pursuant to a resolution of the General Meeting or of the Board, if and insofar as, the Board has been designated for that purpose by a resolution of the General Meeting. Such designation shall be as set out in the Company's Articles of Association. The Company shall notify each issuance of shares in the relevant calendar quarter to the Dutch Trade Register, stating the number of shares issued.

Transactions with majority shareholders

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

Shareholder[5]	Number of shares	Total % of issued and outstanding capital[1]
MSP Stiftung	13,333,340	28.36%
Fidelity Management & Research Company LLC	4,693,933	9.98%
E. Prinzessin zu Sayn-Wittgenstein Berleburg[2]	2,088,461	4.44%
K.A. Winterstein[3]	2,088,461	4.44%
FEWI Beteiligungsgesellschaft mbH	1,891,292	4.02%
GLG Partners LP[4]	1,788,605	3.80%

1. These percentages have been calculated using the number of shares notified by the relevant shareholder to the AFM or the Company and the current issued and outstanding share capital of the Company (and therefore excluding treasury shares). It is noted that for purposes of the Dutch Financial Supervision Act, the calculation must be made on the basis of the issued share capital, and therefore including treasury shares, and therefore the AFM's register will refer to other percentages.
2. The interest is held through Chestnut Beteiligungsgesellschaft mbH (Chestnut). Ms. Sayn-Wittgenstein made an agreement with Mr. Winterstein which allows Chestnut to exercise the voting rights of Silver Beteiligungsgesellschaft mbH (Silver) in the Issuer. Ms. Sayn-Wittgenstein and Mr. K.A. Winterstein share a family relationship.

   On 6 November 2022, Ms. Sayn-Wittgenstein acquired 1,071,722 shares in the Company from Mr. W. Winterstein (held in part directly and in part indirectly through FEWI Beteiligungsgesellschaft mbH) with whom she shares a family relationship. The acquisition of the 1,071,722 shares by Ms. Sayn-Wittgenstein has been disclosed in the AFM's register on manager's transactions under article 19 of Regulation (EU) No. 596/2014 (MAR) (which can be found at www.afm.nl) and on the Issuer's website. No notification has been made by Ms. Sayn-Wittgenstein in the AFM's separate substantial holdings register for this transfer, and consequently the number and percentage mentioned in the table (reflecting a notification to the AFM on 27 October 2017) will not reflect the actual number of shares of Ms. Sayn-Wittgenstein in the Company.
3. The interest is held through Silver. Ms. Sayn-Wittgenstein made an agreement with Mr. K.A. Winterstein which allows Chestnut to exercise the voting rights of Silver in the Issuer. Ms. Sayn-Wittgenstein and Mr. K.A. Winterstein share a family relationship.
4. GLG Partners LP have notified voting rights of 1,487,887 held directly and 300,718 held via a swap agreement.
5. The Company holds 2,460,010 (4.97%) of its own shares in treasury as a result of the buybacks undertaken during the period, 2019 to 2021. Shares held in treasury cannot be voted upon.

Corporate governance statement
continued

Outline of anti-takeover measures

No anti-takeover measures have been implemented. The Company acquired a secondary listing in 2019 on the Vienna Stock Exchange (Wiener Börse) to extend regulatory protections to its shareholders, which could have been lost as a result of the UK's exit from the EU. Austria has become the Company's sole host member state and the Netherlands continues to be the Company's home member state.

The main effect of this is that the Company notifies disclosures, such as share dealing, to each of the three authorities in the UK, the Netherlands and Austria. The Company complies with the relevant corporate and listing regulations across all three jurisdictions. The Company's governance structure continues to be primarily derived from its primary listing status in the UK, although there are minor areas in which regulations in other jurisdictions take precedence.

Prime listing in Vienna

In December 2022, the Company upgraded its secondary listing on the Wiener Börse, which was the home market for RHI AG, prior to the merger in Magnesita in 2017, to the prime market. This is intended to increase the Company's visibility and accessibility to its Austrian investor base. The prime market listing in Vienna does not affect the Company's Premium Listing on the London Stock Exchange, which remains our primary listing venue.

Furthermore, as the Company already declares compliance with a Corporate Governance Code in an EU Member State, the DCGC, it is not required to report compliance with the Austrian Corporate Governance Code. The Company's compliance with the ongoing obligations of the prime market of the Wiener Börse can be found on the Corporate Governance section of the Company's website and within this report.

Share buyback

As previously reported, the Company undertook share buybacks during the course of 2021 under the authority given by shareholders at the AGM. In 2022, no such share buybacks have been undertaken and the authority received under the AGM 2022 remains at 10%, less the amount of shares held by the Company and its subsidiaries in Treasury.

As at 31 December 2022, the Company held a total of 2,460,010 ordinary shares in Treasury, which represented 4.97% of the issued share capital (including treasury shares) at the date of acquisition of the shares. This number is reduced from 2021 because of the satisfaction of the CFO's conditional award which vested on 26 November 2022, and was satisfied through the transfer of treasury shares. You can find more details about this in the Remuneration Report on **page 150**. The Company continues to assess the treatment of these treasury shares and they may be used to satisfy awards made under the terms of the Company's Long-Term Incentive Plan or cancelled, subject to shareholder approval, in due course.

The Board kept the capital allocation of the Company, including the potential for share buybacks, under review in 2022, discussing the risks and benefits and closely considering the medium-term liquidity, leverage profile, outlook and going concern of the Company with detailed presentations from management and consultations with the corporate brokers. The Board will continue to evaluate the potential for additional share buyback programmes and/or tender offers to further enhance shareholder returns, after taking into account market conditions and the Group's wider capital allocation priorities.

Compliance with Listing Rules on Diversity

In 2022, the UK Financial Conduct Authority introduced new Listing Rules (LR 9.8.6R(9) and LR 14.3.33R(1)), and made changes to Disclosure & Transparency Rule 7.2.8AR. The Company's position against these items is on **page 122**.

Board powers, responsibilities and representation

The Board is collectively responsible for the leadership and management of the Company and its business. Its role is to establish the strategy, purpose and values to ensure the Group's long-term and sustainable success. The Board assesses the strategic risks it is willing to take in pursuit of this strategy, ensures sufficient resources, and measures the performance of the management team against agreed objectives, aligned with the strategy. The Board ensures that appropriate controls and systems are in place to manage risk and considers the Company culture and practices, reviewing alignment with the purpose, values and strategy.

The Board Rules and Matters Reserved to the Board, which are available on the Company website, set out those matters that are reserved for the Board to consider, including, among other items, overall responsibility for strategy and management, major acquisitions and investments, structure and capital, financial reporting and controls, and corporate governance. You can read more about the matters considered by the Board in 2022 on **pages 110 to 111**.

The Board has delegated some responsibilities to Committees of the Board, which are outlined in the respective Committee Terms of Reference, available on the Company website, and summarised in their individual reports on **pages 120 to 157**. The Chairman of each Committee provides a report to each Board on the matters discussed and resolved upon in the recent Committee meetings.

Each Board Committee has considered the required matters from the respective Terms of Reference and has assessed its performance in 2022. The composition of the Committees, the number of meetings, attendance at those meetings and key items discussed can be found in each Committee Report on **pages 120 to 157**.

Pursuant to the Articles of Association, the Board may, if it elects to do so, assign duties and powers to individual Directors and/or committees that are composed of two or more Directors, with the day-to-day management of the Company entrusted to the Executive Directors. Both Executive Directors and NEDs must perform such duties as are assigned to them pursuant to the Articles of Association and the Board Rules or a resolution of the Board. Each Director has a duty towards the Company to properly perform the duties assigned to them. Tasks that have not been specifically allocated to a specific Director fall within the power of the Board as a whole. The Directors share responsibility for all decisions and acts of the Board, and for the acts of each individual member of the Board, regardless of the allocation of tasks. Furthermore, each Director has a duty to act in the corporate interests of the Company and its business. Under Dutch law, corporate interest extends to the interests of all stakeholders of the Company, such as shareholders, creditors, employees and other stakeholders. You can read more about stakeholder engagement on **pages 106 to 109**.

The Board as a whole is entitled to represent the

Corporate governance structure

Company. Additionally, (i) the CEO and the Chairman, (ii) the Senior Independent Director (SID) and Deputy Chairman[1] and the Chairman and (iii) two Executive Directors, acting jointly, are also authorised to represent the Company. Pursuant to the Articles of Association, the Board may appoint officers who are authorised to represent the Company within the limits of the specific powers delegated to them. You can find our Articles of Association and the role profiles of the above roles on our website.

The Board has delegated responsibility for day-to-day management of the Company to the CEO and the EMT. There is a clear separation of responsibilities between the Board and the EMT, and the main responsibilities of the EMT are to assist the Board with its oversight of strategy, which involves making strategic recommendations to the Board, being accountable for implementing the Board's decisions, and being responsible for directing and overseeing the Company's operations, investments, resources, and delivering the Company's purpose and value to stakeholders.

EMT & delegation of authority

The Board has documented the matters reserved for its approval, including approvals of major expenditure, investments, and key policies. This was revisited and revised as part of the annual review to ensure it reflected the current organisational structure, and provided as much clarity as possible to the Board, and the organisation as a whole, to enable effective delegation of authority.

The EMT then work within this delegation of authority, as approved by the Board, and set out parameters for the rest of the organisation to work within.

The EMT comprises senior managers reporting to the CEO who are accountable for the key functions in the business. They convene meetings at least monthly to discuss key business performance indicators, to drive operational performance and to agree strategic initiatives to be proposed to the Board. The EMT members attend each Board meeting, giving reports on both standing items and ad-hoc initiatives, per the approved forward agenda planner. Individual EMT members are responsible for the reporting to the Board Committees and leading the organisation in meeting objectives as set out by the Executive Directors and NEDs of the Board. As part of this, they meet and discuss matters one on one with the Chairmen of the Board Committees.

Board appointment

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

NEDs (other than ERDs) will be nominated for a term of three years, subject to satisfactory performance and annual reappointment by the General Meeting. ERDs are appointed for a term of not more than four years. The term of office for each Director (other than ERDs) will end on the day of the AGM in the year following appointment. Pursuant to the Articles of Association, Directors may be reappointed for an unlimited number of terms, but the Board's consideration of NEDs (other than ERDs) for reappointment for a third term would always take into account overall Board independence and stakeholder views, as well as relevant Corporate Governance Codes and associated guidance.

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

Conflict of interest

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

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

Board site visits

The agreed Board pattern is that one Board session per annum, typically over a week in April, is held at a location other than the Vienna headquarters. In April 2022, travel was still somewhat restricted and so the Board travelled to European sites, being in closer proximity to the majority of Directors. Over a period of five days the Directors visited our plants in Hochfilzen (Dolomite Resource Centre Europe in Austria, focused on mining of magnesite and dolomite, sinter production and production of monolithic mixes), Marktredwitz (a plant in Germany producing slide gate systems for tundishes, converters and ladles), and Urmitz (Central European hub in Germany for non-basic refractory products such as bricks, mixes, and pre-fabricated components).

At the sites, Board members met employees involved in a variety of different tasks from mining, health and safety, plant management, lean process management, quality assessment, supply chain management, production, capex investments as well as works council representatives. They also met cultural champions and had the opportunity to observe working practices and discuss the culture at our European plants. The newly appointed Regional Presidents also joined part of the trip and the Board heard from them on their challenges, opportunities, and strategic priorities in the respective regions. Topics included customer and employee focus areas, capex investments, market share and progress against KPIs. The Board also advised what their priorities were for the Regional Presidents. Feedback on the overall trip was very positive and the experience was felt to be extremely valuable for the Board and the colleagues whom they met.

Other site visits by certain Directors took place throughout 2022 and reports were provided to the rest of the Board at the following relevant meetings to share learnings and perspectives from the experience:

- Mitterdorf, Austria — the CSC, along with additional Directors, visited the newly acquired recycling plant in Mitterdorf, Austria, seeing secondary raw material sorting in action and meeting local management. They also received presentations at the Leoben pilot plant of the in-trial sorting initiatives to demonstrate what would be implemented in future.
- Interstop, Switzerland — a Director visited the robotics-focused site to understand more about our progress in digitalisation and automation.
- Siegen, Germany — a Director visited the MIRECO joint venture site to understand the sorting, processing and finishing operations of the newly formed joint venture.
- Rotterdam office, the Netherlands — a Director visited our Global Supply Chain team to enhance the Board's understanding of the implications of extant external factors on our Supply Chain strategy. They had an opportunity to jointly host, with management, a townhall for employees based there.

In April 2023, the intention of the Board is to visit the North America region, including Mexico.

Culture and purpose

In 2022, the Board took all available opportunities to engage with colleagues in the business in order to observe and understand the culture within the Company. Some examples are given above in the description of the Board site visits.

Cultural values support the Company purpose, and the purpose underpins the Company's stakeholder engagement, demonstrating the Company's place within our wider environment and society. You can read more about how the Board incorporates stakeholder viewpoints into its decision-making process on **pages 106 to 109**.

1. A dual role held by one individual, John Ramsay.

Corporate governance statement
continued

Culture has remained an integral element of NED discussions, and the Board and its Committees use many sources to assess culture. Given that culture can arguably best be described as "the way we do things around here", it is difficult to use quantitative metrics that accurately communicate the culture to the Board.

The matters reserved to the Board include monitoring Group culture and workforce policies and practices to ensure these are aligned with the purpose, values and strategy of the Group, and seeking assurance that management has taken corrective action where this is not the case. Policies reserved for Board approval include the Code of Conduct and the Whistleblowing Policy.

Nonetheless, inputs used by the Directors to measure culture include whistleblowing reports, Code of Conduct compliance reports, reports from the Internal Audit and Compliance teams, talent assessment and succession planning, Health & Safety reports, responses to Internal Audit reports and the corresponding outstanding actions, and workforce remuneration. Directors engage directly with management at EMT and below, throughout the meeting cycle and also beyond, which enables their assessment of management culture, being that which sets the tone from the top of the organisation, in more intangible ways. When receiving presentations in meetings, the Board uses these opportunities to seek input from management, asking direct questions, particularly of those at the level below EMT, focusing on how a team operated or a region approached problems to broaden their understanding.

As the Board considered the various operational difficulties and changes in the year, management were prompted to consider how culture contributed to root causes of issues and the solutions. On business-critical projects, the EMT ensured the Board had face time with colleagues working directly on key matters who could communicate and demonstrate the culture of the Company.

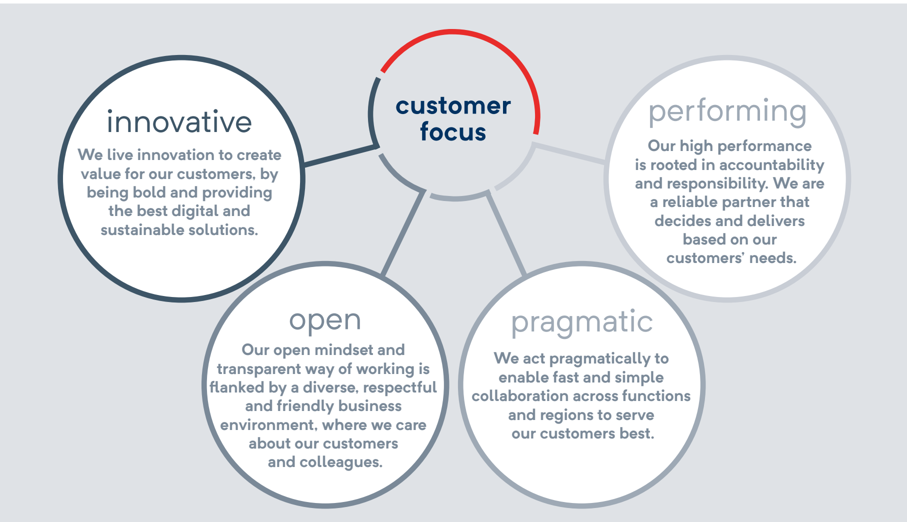
Culture continues to be a central part of performance evaluations for employees and the Company's internal communications are underpinned by our cultural values. Given the multiple global locations of operations, local culture is also discussed by the Board when considering the impact and likely success of initiatives, particularly when planning the integration of newly acquired businesses, which is going to be a significant focus in 2023. The Internal Audit reports to the Audit & Compliance Committee demonstrate that organisational culture is a key factor in achieving good audit results and, where there are improvements to be made, culture is a focus to enable successful implementation. Culture is considered in discussions to identify trends and challenges facing the business. The CSC specifically considers behaviour and culture as key success factors of health and safety campaigns; you can find more details on **page 124**.

The consideration of culture at Board level has provided context to performance in teams such as supply chain management, finance and sales, as well as on the ground in our plants and operations. The Board has considered the culture of different teams, and discussed with management how that culture has contributed to decision making and performance levels of the business. The Board continues to consider how best to effectively measure and assess culture at Board level. The below key cultural themes determine the actions of the Company and specifically feed into performance reviews across the Group, succession planning and risk management.

Whistleblowing

Potential concerns about ethical misconduct or any compliance matters can be reported by all stakeholders (both internal and external) to an independently operated, confidential, and anonymous whistleblowing hotline, available in areas where the Company operates as well as other locations, in several languages. Contact details are communicated throughout the business and are available externally on the website. In addition to the hotline, whistleblowing reports can also be submitted via other channels, such as to a dedicated email address. All reports are assessed by the Internal Audit, Risk & Compliance team and then addressed on a case-by-case basis.

The Audit & Compliance Committee and Board reviews this process and the reports arising from it, ensuring there are arrangements in place for the appropriate and independent investigation of these cases and that follow-up actions to address the root causes are completed.



Board workforce engagement

RHI Magnesita's governance structure has, from the beginning, included ERDs. This was a requirement from the merger between RHI AG and Magnesita in 2017 and reflects the approach in continental Europe, particularly the DACH region. The ERDs, currently Michael Schwarz, Karin Garcia, and Martin Kowatsch, have been appointed by their respective works councils in line with the Company's Articles of Association, and, with experience of the frontline of operations, seek to directly represent the views of the workforce at the highest level of the Company.

The Board welcomes the different viewpoints they provide, bringing increased opportunity for challenge of the executive management, and holding them to account from a different perspective, being that of the workforce who are on the ground. The ERDs can attest to the impact of the executives' actions within the business and contribute to the Board accordingly. Not only do the ERDs have the ability to challenge management, but they can also contribute to the NEDs' view of management and understanding of the Company culture, strengthening the independence the NEDs have, through providing a broader knowledge of the Company.

The information and discussions at Board meetings helps the ERDs' support of the workforce and provide a mutually beneficial link between colleagues and the Board. Specific details are included in the Board stakeholder engagement report on **pages 106 to 109**.

The effectiveness of this approach to workforce engagement is considered from time to time by the Directors.

Board composition

The Board is composed of 15 Directors, which includes two Executive Directors, three ERDs and ten NEDs.

The size of the Board at 15 Directors continues to be a challenge, as seen in findings of the Board reviews. However this is mitigated by the careful behaviour of Directors in meetings, the dedicated work of the Committees, who then feed their pre-work on matters into the Board meetings, and the familiarity of the Board with the nuances of being a dual-listed Company with obligations in three jurisdictions.

Independence

Under the UKCGC, the Company's practice has been when calculating the length of time served by a Director on the Board, to include time served by that Director on the board of RHI AG prior to the merger with Magnesita in 2017. On this basis, in 2021 Wolfgang Ruttenstorfer ceased to meet the independence criteria of the UKCGC, having joined RHI AG's Supervisory Board in 2012 and therefore exceeding nine years of service. He meets no other criteria in Provision 10 of the UKCGC and the Board continues to be comfortable that he provides strong, independent challenge to management, particularly on financial business cases, balance sheet management and risk assessments.

Additionally, per our 2021 annual report, as European corporate law requires the Company to allow for a significant portion of the Board to be ERDs, the Board feels it is appropriate to follow the process of calculating independence as it is undertaken in the relevant jurisdiction. Which is to say that only Directors who can be appointed by shareholders are counted in the calculation and ERDs are excluded from the denominator.

Accordingly, the Board has six Directors out of 11 eligible Directors, who are deemed independent (as set out in the table below), thereby constituting a Board that is composed of at least half NEDs (excluding the Chairman) considered by the Board to be independent.

The Board has considered the independence of the NEDs, including potential conflicts of interest. Each of these Directors has also confirmed that there is no reason why they should not continue to be considered independent.

Skills and experience

The Nomination & Governance Committee seeks to ensure the right balance of skills, knowledge and experience on the Board, taking account of the business model, long-term strategy and the sectors and geographic locations in which the Group operates.

The Board is structured so that the following experience and capabilities are adequately represented across the Board:

- knowledge and understanding of the business and products of the Company and its subsidiaries, and the markets and geographies in which the Company and its subsidiaries operate, in particular the trends and future developments of these markets and geographies;
- an international background and geopolitical exposure;
- broad Board experience, including knowledge of corporate governance issues at main Board level as appropriate for the Company with reference to its size and international spread of activities;
- understanding of corporate social responsibility and sustainability matters;
- practical experience in, and relating to, financing and accounting and/or experience in relation to IFRS, as well as in the areas of risk management and internal controls;
- understanding of the markets where the Company is active, in particular emerging markets;
- science, technology and innovation expertise;
- experience and understanding of human resources and remuneration-related matters; and
- personal qualities such as impartiality, integrity, tolerance of other points of view, ability to challenge constructively and act critically and independently.

The Nomination & Governance Committee considers that all of these aspects are well represented across the Board. In the search for new NEDs, the Board has agreed to seek

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

Name	Position	Gender	Nationality	Year of birth	Date of appointment	Expiry/ reappointment date
Herbert Cordt	Chairman[1]	Male	Austrian	1947	20 June 2017	2023 AGM
John Ramsay	Deputy Chairman and Senior Independent Director[2,3]	Male	British	1957	6 October 2017	2023 AGM
Stefan Borgas	Executive Director (CEO)[4,5]	Male	German	1964	20 June 2017	2023 AGM
Ian Botha	Executive Director (CFO)[4,5]	Male	British/ South African	1971	6 June 2019	2023 AGM
Janet Ashdown	Independent Non-Executive Director[2,3]	Female	British	1959	6 June 2019	2023 AGM
David Schlaff	Non-Independent Non-Executive Director[4,5]	Male	Austrian	1978	6 October 2017	2023 AGM
Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg	Non-Independent Non-Executive Director[4,5]	Male	German	1965	6 October 2017	2023 AGM
Jann Brown	Independent Non-Executive Director[2,3]	Female	British	1955	10 June 2021	2023 AGM
Karl Sevelda	Independent Non-Executive Director[2,3]	Male	Austrian	1950	6 October 2017	2023 AGM
Marie-Hélène Ametsreiter	Independent Non-Executive Director[2,3]	Female	Austrian	1970	10 June 2021	2023 AGM
Sigalia Heifetz	Independent Non-Executive Director[2,3]	Female	Israeli	1961	10 June 2021	–
Wolfgang Ruttenstorfer	Non-Independent Non-Executive Director[6]	Male	Austrian	1950	20 June 2017	2023 AGM
Karin Garcia	Employee Representative Director[4,5]	Female	Spanish	1970	9 December 2021	9 December 2025
Martin Kowatsch	Employee Representative Director[4,5]	Male	Austrian	1972	14 December 2021	14 December 2025
Michael Schwarz	Employee Representative Director[4,5]	Male	German	1966	8 December 2017	9 December 2025

1. Herbert Cordt is not deemed to be independent on appointment within the meaning of the UKCGC on the grounds of his length of service (including time served on the Supervisory Board of RHI AG).
2. Independent within the meaning of the UKCGC.
3. Independent within the meaning of the DCGC.
4. Non-Independent within the meaning of the UKCGC.
5. Non-Independent within the meaning of the DCGC.
6. Wolfgang Ruttenstorfer is considered independent under the DCGC and non-independent under the UKCGC.

Corporate governance statement
continued

additional capabilities and experience in operational excellence in supply chains and processes, with desirable expertise in digital initiatives and sales & marketing. The Board is committed to encouraging diversity to deliver long-term sustainable success for the Company and will continue to pursue its programme in this regard.

You can read about Board diversity in the Nomination & Governance Committee report on **pages 121 and 122**.

Individual roles

Roles of Chairman, SID & Deputy Chairman, and CEO

The roles of Chairman, CEO, SID & Deputy Chairman have been formally recorded by the Board. All of these documents can be found on the Company website. The composition of the Board has been structured such that no one individual can dominate the decision-making processes of the Board.

Non-Executive roles

The Employee Representative, Non-Independent, and Independent NEDs engage with the business of the Board from different perspectives, enabling multifaceted scrutiny to be applied to the Board's decision-making, ensuring that the viewpoints of the Company's key stakeholders are represented. All Directors are required to exercise their independent judgement and act in the best interests of the Company, taking into account the interests of its stakeholders, in their decision-making.

Non-Independent Non-Executive Director roles

Herbert Cordt, Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg, David Schlaff and Wolfgang Ruttenstorfer are not considered independent under the UKCGC, on the grounds of length of service (including time served on the Supervisory Board of RHI AG prior to the merger in 2017 with Magnesita). However, because of that experience, they contribute strongly to the Board's culture and personality, adding valuable insight gained through experience of the markets in which the Group operates and corporate memory. They can constructively challenge the Executive Directors and scrutinise the performance of management in meeting their objectives with the benefit of historical experience of the operations and industry of the business. Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg and David Schlaff can provide an investor perspective to the management team and challenge them accordingly. The detail of all the Directors' independence and the detail of compliance with the criteria of each Code can be found above and on **page 103**.

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

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

Time commitment

On appointment, and each subsequent year, NEDs confirm that they have sufficient time to devote to the Company's affairs. The Nomination & Governance Committee considers any additional external commitments, and the Board is advised of any changes The Board is satisfied that, having considered the demands of the external appointments of each NED and the time requirements from the Company, all NEDs standing for re-election at the upcoming AGM are contributing effectively to the operation of the Board. Whilst the NEDs are re-elected each year at the AGM, their letters of appointment state a term of three years.

Executive Directors

In accordance with Dutch law, an Executive Director may not be allocated the tasks of: (i) serving as Chairman; (ii) participating in the adoption of resolutions (including any deliberations in respect of such resolutions) related to the remuneration of Executive Directors or instructing an auditor to audit the Company's annual accounts if the General Meeting fails to do so; or (iii) nominating Directors for appointment.

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

Company Secretary

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

Board and Committee structure

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

The Board has four Board Committees to ensure a strong governance framework for decision making and assessment of performance against the Company's strategy: the Audit & Compliance Committee, the Remuneration Committee, the Corporate Sustainability Committee, and the Nomination & Governance Committee. Each Committee receives support from the Company Secretary. The Terms of Reference of these Committees can be found on our website and the reports of each Committee, including membership and attendance at meetings in 2022, can be found on **pages 120 to 157**.

Information and support for Directors

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

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

In order to build and increase the NEDs' appreciation and understanding of the Group's people, businesses, and markets, senior managers are regularly invited to make presentations at Board meetings. The strategy meeting involved multiple break-out sessions to provide detail on certain areas of business focus such as initiatives to reduce CO_2 emissions, and digitalisation projects.

Training and discussion sessions were held with the Directors throughout 2022 on topics such as macroeconomic and geopolitical factors, and how they would impact on the business and markets, including the historical development of interest rates, inflation events, the trends and patterns in the labour market, teach-ins about changeable regions in which the Company operates, and Market Abuse regime training.

Training and additional information sessions took place with certain directors as desired on areas such as M&A, equity financing, capital allocation and financial reporting. Directors also maintain their own individual training schedule based on their known needs and interests and have therefore attended a variety of virtual training events hosted by external providers.

Induction

Upon joining the Board, any new Director is offered a comprehensive and tailored induction programme covering all aspects of the value chain, with visits to key sites and meetings with senior managers and other colleagues or advisers as required. New members to Committees are provided with the opportunity for a full and detailed induction, even if they are existing members of the Board.

In late 2021, two new ERDs joined the Board and were provided with a tailored induction programme taking into account their employment and existing knowledge of the Company. Their induction programme covered topics such as M&A and strategic considerations, finance, and balance sheet management. They also met with the Company Secretary to discuss their duties as Directors of a listed company, the Company's corporate make-up, listing requirements in London and Vienna, disclosure requirements and corporate governance matters pertinent to the Company. She also covered Board processes and procedures, with reference to Board policies, the Matters Reserved and Board Rules.

The ERDs also met with the Chairmen of Board Committees to discuss the Committee functions, recent topics and ongoing discussions with management and key areas of focus.

In addition, the Remuneration and Corporate Sustainability Committees welcomed new members who were already on the Board. These new members were offered inductions specific to the Committee; each received access to all the historic Committee documents and met with key members of management, as required, to understand the details of ongoing matters at the Committees. Additional external briefings on remuneration were provided to give an overview of stakeholder expectations, regulations and market practice. The Chairman of each Committee made time available as required to discuss the key relationships, stakeholder views and recent decisions taken.

Board attendance

Seven Board meetings were planned for the year (2021: ten). An additional five ad-hoc meetings were required in the year on topics such as discussion and approval of M&A opportunities and activities, and on matters that received insufficient time in the previous meetings to reach a decision. These ad-hoc meetings took place in a hybrid or entirely virtual setting and were naturally shorter meetings, given their focused agendas. Where they were called on short notice, it was not always possible for them to be at a time suitable for all Directors to attend.

The adjacent table shows the number of scheduled meetings attended and the maximum number of scheduled meetings that the Directors were eligible to attend.

Only in exceptional circumstances would Directors not attend Board and Committee meetings. None of our NEDs have raised particular concerns over the time commitment required of them to fulfil their duties and the Nomination & Governance Committee considered the time required of NEDs as part of its regular programme.

Board attendance 2022	Total attended	Total meetings[1]
Herbert Cordt	12	12
John Ramsay	12	12
Stefan Borgas	12	12
Ian Botha	12	12
Janet Ashdown	10	12
David Schlaff	12	12
Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg	12	12
Fiona Paulus[2]	9	9
Jann Brown	12	12
Karl Sevelda	12	12
Marie-Hélène Ametsreiter	12	12
Sigalia Heifetz	6	12
Wolfgang Ruttenstorfer	12	12
Karin Garcia	12	12
Martin Kowatsch	12	12
Michael Schwarz	12	12

1. In the year, six Board sub-committees were held to approve matters specifically delegated by the Board in accordance with article 17.5 of the Company's Articles of Association. These are not included in the table above.
2. Fiona Paulus resigned on 17 October 2022 and these are the meetings she was eligible to attend.

Board operation

The Board meets regularly throughout the year at Board and Committee sessions, which are usually spread over two days, in person in Vienna. Board meetings can also be convened as deemed necessary by the Chairman or the Senior Independent Director and Deputy Chairman.

In 2022, the Board was delighted to return to meetings in person. Those who could not attend in person from time to time were facilitated via video conference. In the meetings, the Chairman takes care to ensure that each Director has opportunity to comment and be heard, whilst enabling an orderly flow and healthy discussion.

At the end of each Board meeting, the NEDs meet, without the Executive Directors and management, to enable an open and frank exchange of views and assessment of performance. Additionally, the SID holds a meeting with the other NEDs to discuss the Chairman's performance in the course of the year, in conjunction with the Board review process. The Chairman and other NEDs hold regular informal, individual, meetings with the Executive Directors and other senior managers in the business, providing the opportunity to raise questions and cover points of interest, which contributes to the development of both the NEDs and the management.

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

The Board takes the views of its key stakeholder groups into account when challenging management, and in its discussions and decision-making. Inputs to this process include the Company's Net Promoter Score, the ERDs' views, regular Investor Relations reports, analyst coverage and views of two Non-Independent NEDs who represent shareholders.

The Board recognises the importance of balancing stakeholder views, whilst acting in the best interests of the Company. In the event of a decision which has a potentially negative impact on a specific stakeholder group, efforts are made to mitigate these. As an example, in the event of an organisational restructure, which does not benefit certain employees, a detailed communications strategy is designed to explain the decision and employees are treated in a respectful and generous manner. This aligns with the Company values to be open in decision-making and accountable for actions taken.

Stakeholder engagement

Consistent, effective and transparent engagement with our stakeholders helps us better understand their needs and opinions, thereby informing our strategy and enabling us to meet their expectations.

Shareholders

Why they are important
As providers of capital and owners of the business, our shareholders play a central role in the Company's growth and development. By fostering and maintaining their support, we are able to implement our strategy and objectives.

How the Company engages
The Executive Directors meet regularly with investors and analysts (both in person and via digital channels).

The Investor Relations department maintains an ongoing, transparent dialogue with shareholders and analysts and reports regularly to the Board.

Regular engagement with our shareholders is facilitated via one-on-one meetings, investor presentations and webcasts, the AGM, industry conferences and events, capital markets days and site visits.

In December 2022, RHI Magnesita upgraded to the prime segment of the Vienna stock exchange. Its primary listing remains on the premium segment of the London Stock Exchange.

How the Board engages
The Investor Relations team regularly presents analyst coverage of the market and shareholder sentiment to the Board. This includes verbatim shareholder feedback.

Where required, on behalf of the Board, the Investor Relations department engages regularly with shareholders on a range of issues including sustainability and governance. The relevant Board Committee Chairmen and SID participated in annual shareholder roadshows organised by the Investor Relations team.

Priority topics raised by stakeholders
- Company strategy and implementation
- Operational and financial performance
- Capital structure and liquidity
- Capital allocation
- Sustainability agenda — specifically, climate change, diversity, supply chain sustainability and preventing modern slavery
- Linking remuneration to ESG

Outcomes
Shareholder perspectives were considered in Board discussions on capital allocation decisions, remuneration, sustainability governance and ESG strategy.

Feedback about the Group's acquisition strategy from shareholders informs the business strategy and planning for the future in terms of liquidity and business capacity. A number of acquisitions were made in 2022.

Two dividends were paid in 2022, in line with the dividend policy and shareholder expectations.

Achievement of better accessibility for Austrian investors through the prime listing on the Wiener Börse.

Debt holders and lenders

Why they are important
Our lenders and debt holders are an important source of the financial liquidity that the Group requires to operate and are integral to the long-term sustainable success and growth initiatives of the business.

How the Company engages
The CFO and Group Treasurer execute strategies approved by the Board by regularly engaging with debt holders and lenders to secure favourable terms, mitigate risks and ensure sustainable and solid relationships.

How the Board engages
The Treasury department maintains an ongoing, transparent dialogue with its debt holders and lenders, and reports regularly to the Board.

Regular engagement with these stakeholders is facilitated via one-on-one and Group meetings and presentations.

The Board has a clearly defined approval and delegation of authorities matrix for the contracting of debt instruments, and actively contributes and engages in discussions with the CFO and Group Treasurer.

Priority topics raised by stakeholders
- Company strategy and implementation
- Operational and financial performance and outlook
- Capital structure and liquidity
- Sustainability initiatives
- Risk management

Outcomes
In 2022, the Treasury department engaged with its debt holders to refinance two of its structural debt facilities. A €260 million OeKB Term loan maturing in 2023 was increased to a notional amount of €350 million while extending the final maturity date to 2027. A $200 million term loan maturing in 2023 was converted to EUR and increased to €250 million, extending maturity to 2027.

Both refinanced debt facilities are ESG-linked and have been refinanced at competitive rates.

Additionally, the maturity of the Group's €600 million Syndicated Revolving Credit Facility has been extended by one year to 2028 through the exercise of the third extension option.

> Our people are the driving force of our culture. Our culture activation programme strongly supports us in bringing our Company culture to life and launching local initiatives.

Claudia Bergner
Global Senior Vice President, People & Culture

Employees

Why they are important

Attracting, retaining and developing talent is central to the success of the Company. We aim to cultivate an engaged, innovative and collaborative workforce, with a strong focus on diversity.

How the Company engages

We emphasise the importance of frequent, constructive and open communication with our employees.

Communication channels include townhall meetings, social media, email and an employee app (MyRHIMagnesita).

Colleagues throughout the Company, who are designated as Culture Champions, engage with the workforce on an ongoing basis to embed our culture and values.

Regional leadership teams hold townhalls to address regional specific issues e.g. local supply chain issues, local COVID-19 updates and restrictions, vaccinations and production site or office changes.

Our annual Leaders Conference focuses on processes, culture, collaboration and specific KPIs.

Implemented the Supply Chain Academy to reinforce the Group's efforts to manage supply chain volatility in 2022. This training has increased the understanding of important processes and KPIs, giving colleagues knowledge that makes their daily work easier and connects them better with their colleagues across the globe.

How the Board engages

Three ERDs sit on the Board, feeding in on a range of workforce issues such as remuneration, feedback on executive management, shift patterns, and the COVID-19 response.

The Chairman of the Board attended the annual RHI Magnesita Austrian Works Council Conference to present on challenges such as labour shortages, pricing, Russia/Ukraine conflict, climate change and inflation.

The Board carries out both individual and group site visits to meet with plant employees and management. More details can be found on **page 101**.

Local and global townhalls and Q&A sessions are run both virtually and in person, at both regular intervals and when there are specific communications to be delivered.

The CSC considers employee safety KPIs at each meeting, including a root cause analysis of any safety incidents. The Board also receives a report of Health & Safety statistics from the CEO at each meeting.

Priority topics raised by stakeholders

- Operational and financial performance including process and controls improvement
- Business restructuring
- Production halts and plant closures
- Recruitment, talent development and retention
- Job safety
- Cost of living and inflation
- Workforce remuneration
- Health and safety

Outcomes

The employer brand was refocused with the intention of attracting more female talent.

Communications were tailored to support recruitment and retention in the changing labour market.

An employee engagement team was set up in Q4 2022 and is implementing digital tools to help people management and cultural value development.

Social plans for plant closures in Austria (such as Trieben) were implemented in 2022, which included support for outgoing employees like additional training for a new job and career counselling sessions. Under this social plan, entitlement to unemployment benefits is extended to a maximum of three years. This can be used to complete training, apprenticeships, degrees, etc., to upgrade skills or gain additional qualifications before starting a new job. RHI Magnesita invested almost €1 million to financially support valuable employees who have to leave the Company by mutual agreement.

The workforce's overall average remuneration increased, taking into account inflation and collective and union agreements. A strata approach to pay increases was taken to support lower paid employees.

The CSC encouraged management to improve Health & Safety performance, through challenge of the performance reported to the CSC.

Employees' concerns regarding climate change supported our focus on decarbonisation.

Integration planning is undertaken to support and retain employees following completion of M&A transactions.

> By investing in alternative energies and its own gas reserves, RHI Magnesita is taking an important step towards independence and setting a good example.

Austrian Chancellor Karl Nehammer
after his visit to RHI Magnesita's plant in Veitsch

Customers and innovation partners

Why they are important

Our customers are at the heart of our business model. They are fundamental to the sustainable future of the Group.

We collaborate with external partners such as accelerators, start-ups, open innovation platforms, companies and institutions to foster innovation and drive developments in R&D.

How the Company engages

The Company is increasingly connecting with partners from the private and public sector, innovators and academia to exchange ideas and build trust.

We work closely with our customers to ensure we are aware of their needs through day-to-day contact fact-finding, technical consulting, installation and operations supervision and site visits.

The Company runs regular Customer Satisfaction surveys and the Company's Net Promoter Score is measured regularly. It is used as a key metric for customer-facing teams, to ensure focus on providing a positive customer experience in every interaction.

Our R&D and Commercial Excellence & Digital Solutions teams, amongst others, collaborate and engage with innovation partners on an ongoing basis.

How the Board engages

Customers continue to be at the heart of the Company's values and culture, and as such form a central part of every Board decision.

The Executive Directors meet regularly with customers to discuss joint strategies, at industry congresses, seminars and webinars, and at technology events and fairs.

The CSC works with innovation partners on the development of the Company's sustainability strategy, and feeds into the Board.

Priority topics raised by stakeholders

- Climate action
- Partner of choice in the green transition of steel and cement
- COVID-19
- Customer service levels, lead times and supply chain issues
- Price increases in response to widespread inflationary costs

Outcomes

Customer feedback informed the Board's decisions around product pricing to manage inflationary pressure, as well as the strategy for developing the service offering and product portfolio, particularly with regard to sustainable and tailored products.

Impact on customers is considered when exploring M&A opportunities.

The Board made changes to the EMT and introduced regional leadership teams in 2022 to deliver strong customer experience and alignment.

After receiving a lower delivery performance customer rating during 2022, management focused on improving outcomes, resulting in improved customer satisfaction for delivery performance six months later.

All relationships with Russian sanctioned customers were terminated in 2022.

Communities

Why they are important

Wherever we operate, our business depends on maintaining the trust of local communities. In return for this social licence to operate, we must conduct our business ethically and responsibly. We must also strive towards sustainability, not only in our own operations but also to support socio-economic development and environmental protection.

How the Company engages

As a member of the UN Global Compact, we support the UN Sustainable Development Goals and implement the Global Compact principles (anti-corruption, human rights, labour rights and environment). These commitments drive our engagement with policymakers, Non-Governmental Organisations, and others at a national and international level.

At a local level, each operation engages with local communities and other stakeholders to understand their concerns and how we can support them.

In 2022, we specifically focused on education, youth development and environmental protection.

How the Board engages

The Board received regular updates on COVID-19 infection rates and received reports from management on how Group resources were deployed to help its global communities with their COVID-19 response.

The CSC considered, and reported back to the Board, on community engagement, including charitable fundraising for local communities and received updates from management on projects in communities in Mexico, China, the US and Brazil. You can read more about these initiatives on **pages 75 to 77**.

Priority topics raised by stakeholders

- COVID-19
- Climate change
- Skills and employment programmes
- Protecting existing programmes and partners

Outcomes

Employees are encouraged to volunteer in our community programmes. A new programme was launched in 2022, initially through a pilot in the Vienna-based headquarters, through which we are partnering with six non-profit organisations.

When concluding that the Mainzlar plant, Germany, should remain open, the Company considered the plant's impact on the local community and accordingly, it was agreed that railway would be used to transport raw material and finished goods, rather than road transport.

We made further progress on our decarbonisation plan to help improve the world we live in for future generations and were pleased to see an increase in our use of secondary raw materials from 6.8% in 2021, to 10.5% 2022.

Governments and authorities

Why they are important

Governments and authorities set the regulatory framework within which we operate. Where appropriate, we engage with politicians, industry associations and officials to ensure that we can help in shaping new policies, regulations and standards, and ensure compliance with existing requirements.

How the Company engages

We have further intensified our collaboration with government officials in 2022 when geopolitical uncertainties called for urgent action from many industries.

You can find a list of our industry associations on **page 80**.

The Company welcomed Austrian Chancellor Nehammer to our plant in Veitsch to demonstrate the Company's efforts to transition to alternative energies.

We were also honoured to welcome Austria's Federal President Alexander Van der Bellen to our Veitsch plant to celebrate the 120th anniversary of its workers' band and the contribution of the plant towards Veitsch's social and economic empowerment. He took the chance to meet with young female employees to understand their perspective on sustainability, peace, innovation, and inclusion.

The Company has actively participated in forums such as the Clean Energy Action Forum in Pittsburgh in September 2022.

In North America, RHI Magnesita has held meetings and tours at our York plant and quarry for Pennsylvania state legislators and local economic council members to discuss the Company's commitment to the local community and ways in which RHI Magnesita's focus on sustainability and a circular economy align with state priorities regarding alternative energy and emissions reduction.

How the Board engages

The Board approved an €8 million capital expenditure investment to diversify energy sources at its European plants to alternative fuels.

The Chairman and broader management welcomed Austrian Vice Chancellor Werner Kogler to the Company's recycling hub in Mitterdorf in April 2022.

Priority topics raised by stakeholders

- COVID-19
- Inflation
- Russia/Ukraine conflict
- Supply chain issues
- Energy market volatility
- Alternative energies
- Sustainability, climate change, and decarbonisation

Outcomes

Transparent communication and open information sharing supports a collaborative relationship with the Austrian government, where RHI Magnesita operates four plants.

The strong progress in the field of recycling and activities such as the establishment of a joint venture with Horn & Co (MIRECO). has garnered great interest from government officials. In 2022, the recycling rate increased to 10.5% (2021: 6.8%)

During the Clean Energy Action Forum in Pittsburgh, management met with international energy ministers and environmental experts from around the world. This resulted in fruitful discussions about visions and solutions in the areas of climate change, energy security and decarbonisation.

Suppliers

Why they are important

Strong relationships with our suppliers are vital for the effective running of our operations. We rely on our suppliers to deliver services and materials, and we recognise that the availability of these goods impacts how we operate as a Company.

How the Company engages

The Company evaluates its suppliers through:

- a sustainability risk matrix that assesses suppliers according to country and category risk; and
- a goal-based framework to evaluate the majority of RHI Magnesita's purchase spend by supplier under its sustainability criteria, until 2025.

All suppliers are requested to sign the Supplier Code of Conduct, and a Sustainable Procurement Guideline and Supplier Audit Guidelines are implemented consistently across our operations.

A risk-based approach is taken with external parties undertaking audits on behalf of the Company in higher risk areas.

The Company operates fair payment terms for suppliers, whilst leveraging benefits for its own financial health.

How the Board engages

The CSC received reports from management on supplier audits and engagement and considered progress on the Company's sustainable procurement initiatives.

The Board receives regular updates on the business's work to future-proof our supply chain and the work undertaken to adapt our processes to an increasingly volatile environment.

In 2022, the Board considered and approved the Modern Slavery Act Statement for publication, following a recommendation from the CSC. The statement can be found on our website.

Priority topics raised by stakeholders

- The impact of supply chain volatility on profitability
- Inventory levels
- Shipment delays
- COVID-19
- Climate action
- Safety
- Raw materials
- Sustainable procurement

Outcomes

The Group made good progress throughout 2022 on sustainable procurement in a more challenging supply chain environment. Specialist consultants were engaged to guide management in 2021 on tactical and strategic supply chain management and this work continued in 2022.

The 2021 taskforce implemented changes such as more efficient transportation reporting, regular updates of freight costs, the creation of a lead time dashboard, an automated critical raw material check and regional support for backlog prioritisation. The focus of management in 2022 has been on driving sustained, better performance in supply chain management and demand planning.

Suppliers are requested to sign up to the Supplier Code of Conduct and will increasingly be part of our supplier audit programme.

Financial process work has included some specific work packages that provide better outcomes for suppliers. Focus has been applied to improving the effectiveness of the purchase order process to accelerate the matching of purchase invoices to orders with a consequent improvement in the timeliness of the payments process, providing a better outcome for our suppliers.

Corporate governance statement
continued

Key areas of Board focus and activity in 2022

Amongst other matters, the Board focused on the following areas in the year:

Group strategy and long-term value creation/ preservation

- Conducted an annual two-day strategy meeting session with members of the EMT and senior management team to assess the current strategy and ensure it was fit for purpose. As part of these discussions, the Board considered the global outlook and macroeconomic trends, developments in key markets in each region, structural trends, technical innovation, and sustainable product initiatives, review of the business model, and the competitive environment.
- Participated in a risk-management workshop, discussing risks aligned with the strategic opportunities and focused break-out sessions on future opportunities and current position of topics such as the European steel markets and digitalisation.
- Received reports throughout the year outlining potential business development opportunities as they arose, including strategic M&A.
- Approved disposals and acquisitions, with reference to the Company's strategic intent and the balance sheet capacity. In approving M&A, the Board focused on the synergies to be leveraged, which will support a sustainable business model, and any risks to that development that are to be mitigated. Furthermore, the impact on the Company's sustainability strategy was considered with each potential acquisition.
- Considered geopolitical and macroeconomic trends and factors, particularly those impacting employees, costs of production, delivery to customers and the implementation of the strategy.
- Discussed the Company's Raw Materials strategy, the strategy for provision of products and services to customers.

- Considered progress against the 2025 strategy, through consideration of a strategic initiatives dashboard, and discussed the execution of the strategy and any associated barriers.

People, succession and leadership

- Board composition, particularly that arising from the departure of Fiona Paulus and Sigalia Heifetz's decision to stand down at the 2023 AGM.
- Reviewed Board Committee composition and received updates from the Nomination & Governance Committee on the Board composition and skills represented.
- Considered the executive management structure, arising from changes proposed by the CEO, considering the capability and capacity of various members for changed roles.
- Considered talent pipeline, EMT succession and particularly CFO and CEO succession plans and related actions.
- Considered the 2021 internal Board review and the actions relating to the review, including progress against the actions identified in the year. Considered the scope and approach of the 2022 Board review.
- Reviewed and approved the bonus for 2021 performance and the remuneration of the Chairman, Executive Directors and EMT.
- Discussed retention, performance and resourcing. Made recommendations to management in respect of training, incentivisation and external support.
- Discussed employee engagement, morale and wellbeing, particularly in the context of key decisions such as regionalisation and organisational restructure.
- Received presentations on organisational diversity, ratified the EMT-signed Diversity Charter, and agreed the focus areas for improvement to drive greater gender diversity, as well as other forms of diversity.

Financial performance

- Approved the annual budget for 2022.
- Reviewed and approved the Group's full-year 2021 and half-year 2022 results together with the 2021 Annual Report, including ensuring that it was fair, balanced and understandable, and confirming that the Group was a going concern. As part of this, the Board considered the external auditor's reports and the key matters raised.
- Received regular financial updates covering revenue, margins, costs, performance year-to-date and outlook on a monthly basis.
- Reviewed the Group's debt, capital, and funding arrangements, particularly in respect of ensuring the ability to take advantage of any opportunities as they arise, such as acquisitions that were considered at various points in 2022.
- Reviewed liquidity, cash flow and scenario planning, particularly with reference to macro factors such as inflation and supply chain issues, requiring careful management of inventory.
- Considered capital allocation and payment of dividends, including the approval of the interim dividend at H1 2022.
- Considered disclosures to the market and noted the work of the Disclosure Committee to continually monitor matters at hand.
- Received updates on the Company's tax position and matters at hand with local authorities in various locations.

Markets and sales

- Received updates at each meeting on sales performance, market share and progress against sales initiatives, particularly with reference to customers.
- Considered strategic pricing and costs of production, particularly in the context of inflation.
- Received reports on sustainable recycling and digital initiatives designed to meet customer expectations and develop the Company's offering.
- Discussed with management the sales teams' behaviours, and the consequent links to the operational performance of the Company.

Operational performance

- Received updates at each meeting on operational performance, including any impacts to customers and current H&S compliance levels.
- Received briefings on operational projects, including project management, business cases for payback, timescales, and any barriers to completion.
- Considered reviews of completed projects, which included lessons learned by management for use in future projects and planning.
- Considered individual plant performance as appropriate and, with reference to the Company's strategy, noted management's decisions to pause production and project work at plants as required.
- Received frequent reports on supply chains and value chains, including the work of the project to address the issues and considered management's proposals to improve performance across the value chain.
- Appraised the principal risks, mitigating actions and controls around operational performance.
- Approved ad-hoc requests to facilitate flexibility in the face of energy shortages and considered the contingency planning accordingly.

Technical innovation and sustainability

- Received updates on the development of low-carbon products and market developments in carbon capture and storage.
- Considered future strategy, partnerships with external parties, and processes to encourage innovation.

Legal and compliance matters

- Received regular updates on whistleblowing, including an annual review of the process.
- Reviewed and approved a refreshed Code of Conduct and the associated compliance report.
- Received updates on the Group's compliance and cyber security programmes.
- Considered compliance reports, and also received a benchmarking report on the number of compliance cases compared with peers.
- Received updates on any legal developments as they related to the Company.
- Considered and approved revised share dealing and inside information policies, Matters Reserved to the Board, the associated Delegation of Authority matrix, and Board Rules.

Stakeholder engagement and governance

- Approved the Notice and business of the AGM.
- Received input from the ERDs.
- Considered the Company culture as an ongoing matter.
- Received reports on investor engagement, including verbatim feedback, the discussions held as part of the annual roadshow, and the detailed perception study.
- Approved the annual statement for the Modern Slavery Act and California Transparency in Supply Chains Act.
- Received reports on customer satisfaction levels, including Net Promoter Scores and feedback from customers.
- Received a report from the Remuneration Committee on the workforce remuneration and operation of various bonus schemes in the organisation designed to incentivise good behaviours.
- Received regular updates on corporate governance and other matters from the Company Secretary, including reviews of any potential conflicts of interest.

See stakeholder report for more details on **Pages 106 to 109**

Corporate governance statement
continued

Board review

In 2022, the Board considered the findings of the 2021 Board review and the progress against actions. This review was conducted internally through completion of questionnaires by each Board director. Areas that were felt to have improved included the diversity of the Board, updates on key developments between Board meetings, Board cohesion, as a result of COVID-19 crisis, the clarity of strategy, the integration of sustainability matters, and understanding of strengths and weaknesses.

Areas for improvement in 2022 included Board papers and the Board continued to request more understanding of stakeholders as a priority, such as employees, minority shareholders, customers, and suppliers. In 2022, no formal Group-wide employee surveys were undertaken, but management reported anecdotal feedback they heard from selected groups in response to questions from the NEDs and ensured the Board had opportunities to engage with colleagues on site visits. The Board has encouraged management to request more structured feedback from employees. More detail on actions from the 2021 review and progress can be found on **page 121**.

As outlined in the Chairman's introduction, the Board decided to engage EY to conduct interviews for the internal Board review of 2022. This review is ongoing at the time of publication and will be reported on in full in our 2023 Annual Report; the initial indications are the Board can be comfortable that it is operating effectively. It has been conducted through interviews in Q1 2023 and is designed to be more discursive. The scope of the review is therefore more high level but has been designed to focus on:

- Board dynamics, communication, and cohesion, including, support and challenge of the EMT, quality of discussion, and relationships between Directors and management;
- Chairman's performance of his duties;
- governance, how it is demonstrated in the Company, including the Company culture, risk management, internal controls and succession planning;
- priorities for 2023 — both for the Board and the Company as whole; and
- any other matters for comment, such as Board support, meeting management and focus, quality of Board materials, and oversight of stakeholders' priorities.

Board Committees considered their respective Committee effectiveness in 2022 with input from management who regularly attend the meetings and other Directors who regularly attend as guests. Each Committee identified areas of progress and any matters for improvement. You can read more details in each Committee report on **pages 120 to 157**.

Statement of Directors' responsibilities

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

a) select suitable accounting policies and then apply them consistently;

b) make judgements and accounting estimates that are reasonable and prudent;

c) state whether applicable IFRS as adopted by the EU and the relevant provisions of the Dutch Civil Code have been followed, subject to any material departures disclosed and explained in the Annual Report; and

d) prepare the Annual Report on the going concern basis, unless it is inappropriate to presume that the Company will continue in business.

> The Group's liquidity position at the beginning of 2023 is strong due to the additional refinancing conducted in 2022 to maintain our liquidity levels and extend debt maturities.

John Ramsay
Chairman of Audit & Compliance Committee

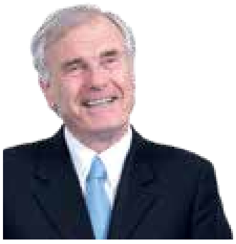
The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose, with reasonable accuracy at any time, the financial position of the Company and the Group, and enable them to ensure that the Annual Report complies with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

Each of the Directors, whose names and functions are listed on **page 219** confirm that, to the best of their knowledge:

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

After conducting a review of management's analysis, the Directors have reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. For this reason, the Directors consider it appropriate to adopt the going concern basis in preparing the Annual Report. Directors are also required to provide a broader assessment of viability over a longer period which can be found on **pages 50 to 51** (the "Viability Statement") of the integrated report and accounts. The consolidated financial statements on **pages 160 to 219** were approved and signed by the Board on 26 February 2023. There are no special events that should be taken into account for these consolidated financial statements.

Board of Directors



Herbert Cordt N
Chairman

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

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

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

John Ramsay A N
Senior Independent Director and Deputy Chairman

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

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

Current external appointments: Koninklijke DSM N.V. (Supervisory Board Member), Croda International plc (Non-Executive Director, Chair of Audit Committee) and Babcock International plc (Non-Executive Director).

Stefan Borgas
Chief Executive Officer

Stefan's career has focused on business transformations. He was CEO at RHI AG from December 2016 until October 2017, when he became CEO of RHI Magnesita, following the merger.

Prior to that, he was president and CEO at Israel Chemicals Ltd and between 2004 and 2012, he was CEO at Lonza Group. In his early career, he worked at BASF Group, where he held various management positions.

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

Current external appointments: Afyren SAS (Chairman) and Borgasadvisory GmbH (owner).

Ian Botha
Chief Financial Officer

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

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

Current external appointments: none.

Board Committee member

- N Nomination & Governance Committee
- A Audit & Compliance Committee
- S Corporate Sustainability Committee
- R Remuneration Committee
- Chairman of Committee

Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg S

Non-Independent
Non-Executive Director

Stanislaus was a member of the Supervisory Board of RHI AG from 2001. He has been a Supervisory Board member on several "Stadtwerke" (municipality owned utilities) as well as undertaking senior executive roles, including CEO and CFO, in the energy industry. He has deployed industrial knowledge combined with financial detail throughout his career, and was an Investment Banking Director at Deutsche Bank AG. Over the past five years he has focused on private equity work in a German mid-cap environment and also engages in a broad range of asset management activities in a family office environment.

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

Current external appointments: STUV Steinbach & Vollmann Holding GmbH (CEO).

David Schlaff

Non-Independent
Non-Executive Director

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

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

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

Wolfgang Ruttenstorfer A

Non-Independent
Non-Executive Director

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

Wolfgang graduated from the Vienna University of Economics and Business.

Current external appointments: Erne Fittings GmbH (Supervisory Board member).

Janet Ashdown S R

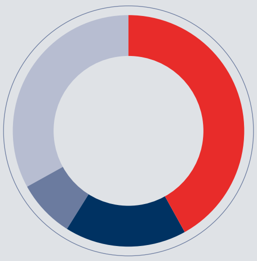
Independent
Non-Executive Director

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

Janet holds a BSc in Energy Engineering from Swansea University.

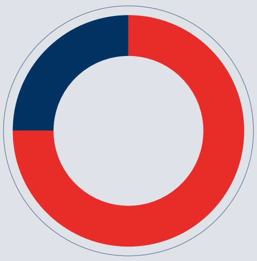
Current external appointments: Nuclear Decommissioning Authority UK (Senior Independent Director and Chair of Safety & Sustainability), Victrex plc (Non-Executive Director, Chair of Remuneration) and Stolt-Nielsen Limited (Non-Executive Director).

Directors by length of tenure



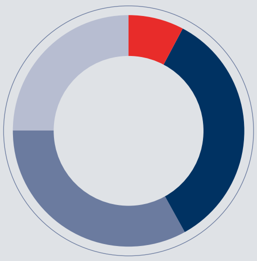
0–3	42%
3–5	17%
5–9	8%
9+	33%

Directors by ethnicity



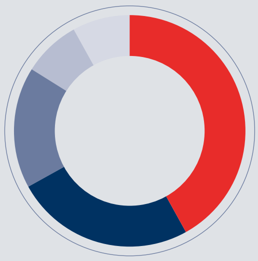
White	75%
Prefer not to say	25%

Directors by age



40–49	8%
50–59	34%
60–69	33%
70–80	25%

Directors by nationality



Austrian	42%
British	25%
German	17%
Israeli	8%
South African / British	8%

As described in the Corporate Governance Statement, these statistics do not include the Employee Representative Directors.

Board of Directors
continued

Independent Non-Executive Directors

Janice "Jann" Brown A R
Independent Non-Executive Director

Jann started her career with KPMG, where she qualified as a Chartered Accountant and a Chartered Tax Adviser, moving into industry in 1998 and since then has worked in a number of roles, both executive and non-executive, primarily in the energy sector but also in engineering services, manufacturing and investment management. As a result of these roles, Jann has extensive international business experience, particularly in India and the Middle East. Her listed company board experience, both as an executive and a non-executive, brings an awareness of the importance of governance, culture and strong ethics. She is an experienced financial professional and is a Past President of the Institute of Chartered Accountants of Scotland.

Jann is a Chartered Accountant, and also holds an Honours Degree in History from Edinburgh University.

Current external appointments: Pharos Energy plc (Managing Director), and ICAS Foundation (Trustee and board member).

Karl Sevelda R N
Independent Non-Executive Director

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

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

Current external appointments: SIGNA Prime Selection AG (Supervisory Board member), SIGNA Development Selection AG (Supervisory Board member), Liechtensteinische Landesbank AG (Non-Executive Director), and Custos Privatstiftung (Management Board member).

Marie-Hélène Ametsreiter S
Independent Non-Executive Director

Marie-Hélène has been a General Partner with Speedinvest, a leading European Venture Capital firm, since 2014. As the lead partner of the Industrial Tech team, she drives seed stage investments in start-ups supporting the digitisation of Europe's industrial sector, including manufacturing, logistics, construction and climate technology. Before Speedinvest, Marie-Hélène was responsible for the Corporate Sustainability Program at OMV, a leading Austrian oil and gas producer, and prior to that was CEO of the Croatian mobile telecom operator Vipnet. She has extensive skills and experience in sustainability, digitisation and automation.

Marie-Hélène graduated in Business Administration from the Vienna University of Economics and studied at the University of California.

Current external appointments: Greyparrot.ai Ltd (Non-Executive Director), AMODO, Inc. (Non-Executive Director) and Speedinvest Deutschland GmbH (Managing Director).

Sigalia Heifetz
Independent Non-Executive Director

Sigalia served in the Israeli Air Force as Operation Room Controller and Training Commander, and later joined BDO. She was a member of professional committees at the Israeli Institute of CPAs until 1997, when she became a Partner at BDO until 2003. Since 2008 Sigalia has provided consulting services to international investors. She holds non-executive directorships at a number of leading public corporations across a range of sectors and industries. She brings a wealth of international experience and geopolitical exposure, alongside solid business and financial acumen. Sigalia will not stand for re-election at the 2023 AGM.

Sigalia holds a BA in Accounting & Economics from the University of Tel Aviv (Israel) and is a Certified Public Accountant. She has completed two Executive MBAs with INSEAD (France) and Tsinghua (China).

Current external appointments: Plus500 Ltd (Non-Executive Director), Maman Cargo Terminals and Handling Ltd (Non-Executive Director), Tamar Petroleum Ltd (Non-Executive Director), Clal Biotechnology Industries Ltd (Non-Executive Director, including Clal Industries and subsidiaries within the group) and Vesta Investment and Management Ltd (Owner).

Board Committee member
- N Nomination & Governance Committee
- A Audit & Compliance Committee
- S Corporate Sustainability Committee
- R Remuneration Committee
- Chairman of Committee

Employee Representative Directors

Karin Garcia

Employee Representative Director

Karin studied at the University of Oviedo and finished her degree in computer science in 1994, specialising in systems support. She started with the Group at RHI in 1997, first working in the commercial execution team and then she transferred to the IT on-site support in Oviedo as a Regional Site Service Coordinator where she continues to work as a senior site coordinator.

Karin has been appointed as an Employee Representative Director by the Spanish Works Council.

Current external appointments: none.

Martin Kowatsch

Employee Representative Director

Martin has been with the Company since 1987. He is Chairman of the Group Works Council, as well as the Chairman of the Works Council at the Digital Plant Flagship in Radenthein. He is a trained industrial electrician, and has completed a one-year Chamber of Labour/trade union training. He successfully completed a Master´s degree programme in "Education and Group Dynamics".

Martin received his doctorate in history (focusing on educational development) from the Alpen-Adria-Universität Klagenfurt.

Current external appointments: none.

Michael Schwarz

Employee Representative Director

Michael has been with the Group since 1983 and is a member of the works council at RHI Magnesita Deutschland AG.

Michael has been appointed as an Employee Representative Director by the German Works Council.

Current external appointments: none.

Directors serving part of 2022

Fiona Paulus

Independent Non-Executive Director

Appointment date: 6 June 2019
Resignation date: 17 October 2022

Executive Management Team

The EMT combines broad experience and complementary skill sets to deliver the Group's strategic priorities.

Stefan Borgas
Chief Executive Officer

For full biographies, see **Page 114**

Ian Botha
Chief Financial Officer

Gustavo Franco
Chief Customer Officer

Gustavo was appointed Chief Sales Officer in January 2019, prior to which he was Senior VP of Process Industries and Minerals. He joined Magnesita in 2001 as a Technical Marketing Engineer, after finishing his Bachelor's degree in Mechanical Engineering at the Federal Center for Technological Education of Minas Gerais and since then has developed his career in the refractory industry.

Over the course of six years, he progressed through various sales managerial roles in South and North America and was part of the Executive Committee of Magnesita Refratários from 2015 to 2017. In 2018 he completed the Senior Executive Programme with the London Business School.

Rajah Jayendran
Chief Technology Officer

Rajah has held various senior operational and strategic development roles at multinational companies such as Thyssen-Krupp Uhde GmbH, Bayer MaterialScience AG, Lonza AG, and ChemChina-Bluestar Group Co, working in China, Singapore and Switzerland. He has valuable experience in the industry in Asia. He also has experience in renewable solutions and operational performance management. In 2018, Rajah became a key team member at RHI Magnesita, holding the position of Senior Vice President Operations Europe/CIS/Türkiye until, in October 2021, he joined the EMT as Chief Operations Officer (COO), before his role became Chief Technical Officer. Rajah brings a detailed knowledge of the Company's global operations and expertise in production efficiencies.

Rajah graduated in engineering from TU — Ruhr-Universität Bochum.

Executive serving in 2022

Simone Oremovic

Executive Vice President, People, Projects and Value Chain

Simone joined RHI Magnesita in an executive capacity in November 2017. Simone has 20 years of experience in Human Resources.

She started her career at General Electric where her main focus was on leadership and talent management, as well as Human Resources process. She is a certified Six Sigma Master Black Belt. She has held leading Human Resources roles in Telekom Austria Group, IBM Austria, and Baxter AG. Her role since October 2021 covers People, Culture, Global Projects for the Group as well as building the new end-to-end Value Chain and running the operational supply chain.

Simone has a degree from the European Business School (Paris) and from the Economic University of Vienna.

Ticiana Kobel

Executive Vice President, Legal & Digital Transformation

Ticiana has extensive legal experience in a wide range of global businesses, such as SR Technics Group and Bühler Group, leading legal departments in manufacturing, aviation, technology, the service sector and engineering industries. In these roles. She was in charge of crucial projects pertaining to varied matters, such as complex strategic procurement, spin-offs, sales and acquisitions, and corporate governance issues, and assisted with the design and implementation of compliance functions, mergers and acquisitions, and partnerships.

Ticiana has a law degree with an emphasis in corporate law from the Federal University of Minas Gerais and an LLM in International Economic Law and European Law at the University of Geneva.

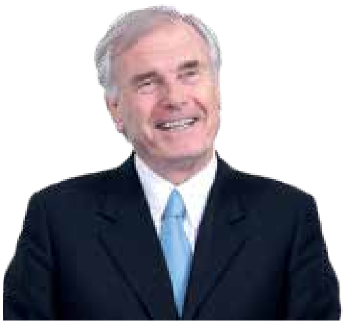
Luis Rodolfo Bittencourt

In February 2023, Luis took a senior specialist role, focusing on Company's Global Research & Development and Raw Materials strategy. He was Chief Technology Officer in 2022.

Luis started working for Magnesita in 1986 and has held several positions in his career in the refractory and mining industry including Mining/Geology Manager, Technical Purchasing Manager, Plant Manager, and R&D VP.

He is a past President of the Brazilian Refractory Producers Association and the Latin America Refractory Producers Association. He holds a Bachelor's degree in mining engineering from the Federal University of Minas Gerais, a Master's degree in Metallurgical Engineering from the University of Utah, and a PhD degree on Ceramic Engineering from the University of Missouri.

Nomination & Governance Committee report



Herbert Cordt
Chairman of the Committee

Committee members and meeting attendance

	Attendance in 2022	Member since
Herbert Cordt (Chairman)	3/3	October 2017
John Ramsay	3/3	October 2020
Karl Sevelda	3/3	June 2021

The Committee continues to consider what skills and experience are required on the Board to best progress management's strategic focus and operational execution to achieve sustainable success for the Company.

Committee purpose, roles and responsibilities

The Committee's purpose is to ensure that the Company has the competencies and depth of skills within the Board and senior executives to meet the demands of a global business and to support the development of the Group's strategy, whilst paying particular attention to independence and diversity.

Roles and responsibilities:

- Review the structure, size and composition (including the skills, knowledge, experience and diversity) of the Board and its Committees, recommending any changes to the Board.
- Consider succession planning for Directors and the senior executives.
- Lead the process for recruitment of any new Directors, including the Chairman, and their recommendation to shareholders.
- Assess annually the time commitment required from NEDs, including the approval of any additional external appointments on behalf of the Board.
- Review the results of the Board effectiveness review relating to composition of the Board or the effectiveness of any individual Director.
- Consider annually the Company's compliance with the UK & Dutch Corporate Governance Codes and review key documents related to corporate governance.

More detail on the duties of the Committee can be found in its Terms of Reference on the corporate governance section of our website.

Activities in 2022

The Committee met three times in 2022, covering the roles and responsibilities set out above and in particular, the Committee considered the following matters:

Scope of the Committee

In 2022, the Committee resolved to widen its scope to consider governance matters, changing its name to reflect this, and updating the Terms of Reference accordingly. The Company reports against two corporate governance codes, in the Netherlands and the UK, and there are an increasing number of matters for consideration in respect of corporate governance such as those arising from the UK Government's Corporate Governance & Audit reforms and UK Listing Rules changes. Furthermore, the Dutch Corporate Governance Code was updated in December 2022 (to be reported against from 1 January 2023) and the UK Corporate Governance Code is expected to be updated in the near future. The intention is that the Committee will support the Board with these changes through focused attention and relevant knowledge.

Time commitment from NEDs

The Committee considered, as it does annually, the review of time required from the NEDs to fulfil their duties satisfactorily. This covered meetings, required preparation time and any additional time Directors spent outside of meetings in discussion with management. For 2022, this assessment recognised the additional complexity of Company operations, given the ongoing volatility in the business environment and additional time required from the Board to consider M&A opportunities in the year. No NED has raised significant concerns about the time requested of them in 2022 and the Committee will continue to keep this under review.

The Board received a report detailing the external appointments held by Directors and was comfortable that none of the Directors standing for re-election in the 2023 AGM are compromised by their other commitments in the time they can dedicate to the Company.

Board review

The Committee takes responsibility for the preparation of the annual Board effectiveness reviews. In 2021, following three years of external reviews facilitated by Lintstock, the Board review was undertaken internally.

The findings of the 2021 Board review still showed significant impacts from COVID-19 restrictions; in 2022, a much greater number of physical meetings was possible. The role of the Chairman in generating greater cohesion, despite the limitations on personal interaction, was highlighted by respondents. Particular improvements were noted on updates in between meetings, particularly on current and emerging matters, on the clarity of strategy, understanding of strengths and weaknesses, and the integration of sustainability.

The Board agreed actions for focus in 2022, with a view to further improving its effectiveness. Key points considered are outlined in the table below.

The Board has been satisfied to see sustained improvement in Board effectiveness since listing in 2017. For the 2022 internal Board review, the Directors agreed that interviews would be an effective use of time, and EY were engaged to support the Company Secretary with this approach.

The effectiveness of each Board Committee for 2022 has been reviewed, with inputs from management and suggestions for practical improvements, such as trackers of strategic goals and continuation of certain practices like deep-dive topics and site visits. Generally, actions from Committees' 2021 review had been progressed with improvements observed, and the Board is comfortable the Committees have continued to operate effectively.

Board diversity

The Committee and the Board have dedicated time in the annual schedule to discussing diversity, both at Board level and within the organisation. Board gender diversity for the majority of 2022 was at 38% and with the new appointments currently being sought, the Board will ensure this level of diversity is maintained.

The Board Diversity Policy (available **here** on our website) outlines an aspiration of 45% gender diversity at the Board level which continues to be the aim. The policy also takes account of diversity represented through an individual's background and ethnicity. It is being implemented through all-female shortlists for the open positions, with ethnicity as a further key consideration, providing the required experience and skills can be also identified in the candidates. In respect of the currently ongoing NED recruitment process, the Committee is confident it can identify an all-female shortlist who can meet the specified criteria.

Of the collective Board Committee member positions, 42% are held by women and two of the Committees have a female Chairman, as a result of the Board's pursuit of gender diversity in recent years. Committee composition is considered carefully by the Committee and extant Company commitments, experience and skills are considered when making changes.

This policy will be reviewed in 2023 to consider any desired changes arising from the new DCGC and revised UK Disclosure and Transparency Rules, DTR 7.2.8AR.

Board Review improvement area	Progress in 2022
Stakeholder oversight	ERDs were encouraged and expressly invited to speak directly on topics to give the employee voice at the Board table. The Chairman attended the Works Council Conference 2022 to hear directly from Works Council members in Austria and to give the perspective of the Board in a two-way conversation. Please see **pages 106 to 109** for more detail.
Delivery of the 2025 Strategy	Management have been focused on ensuring lessons learned are outlined and considered with the Board for improvement in future projects. This enables the Board to hold the wider management to account more effectively to ensure delivery of the 2025 Strategy. The structure of agendas and topics for discussion are evolving to focus on strategic matters and the results of the 2022 Review will be the indicator of progress here.
Board papers	The Board paper portal remains under consideration with respect to available developments and products. Paper quality is improved from some areas of the business, with areas of further focus from other departments identified for improvements.
Board skills	In 2022, the Board has had focused sessions led by an external expert in a particular field on strategic topics related to the Board discussion. Directors continue to pursue their own structured learning and useful resources such as webinars and articles are circulated by the Company Secretary. There was formal training on Market Abuse Regime and responsibilities as Persons Discharging Managerial Responsibilities to the EMT and the Board.
Culture	Opportunities to experience organisational culture directly were taken by the Directors on their site visits and one director co-hosted an employee townhall on site in Rotterdam. Please see more details on **pages 101 to 102**.

Nomination & Governance Committee report continued

Compliance with Listing Rules on Diversity

In 2022, the UK Financial Conduct Authority introduced new Listing Rules relating to diversity (LR 9.8.6R(9) and (10), and LR 14.3.33R(1)). The Company's position against these items is set out within this report (right).

The Company agreed on a reference date of 31 October to align with reporting to the FTSE Women Leaders Review. The Company's reported data (right) shows the position as at 31 October 2022. The EMT has changed composition and consequently is now 50% male and 50% female (the Executive Directors are included under the Board reporting).

As discussed in the Corporate Governance Statement, the ERDs, being appointed by the workforce with no input by the Board or shareholders, are not able to be influenced in terms of appointment. Therefore, the Board's view is that it is inappropriate to include them in any calculation of Board diversity, unless defined by law. Nonetheless, the Board were pleased to welcome Karin Garcia, as the nomination from our Spanish Works Council, to the Board in December 2021.

The Committee and the Board will continue to support the Company's approach in facilitating people development, ensuring that talent, regardless of age, gender, and background, enjoys career progression within the Group. Diversity of nationality, culture and ethnicity are all important factors to engender diversity of thought. The Committee believes that the diversity of nationalities and culture represented amongst the Board and EMT provides a diverse and global perspective. More details on the Group's diversity and inclusion work can be found on **pages 25 and 73**.

Listing Rule target	Company's position	Comment
At least 40% of the board are women.	33%	Our aspiration is to achieve 45% gender diversity, recognising that it requires a careful and measured approach to accommodate Board attrition, whilst maintaining the existing profile of desired skills and experience. The Board in 2022 comprised 38% female representation prior to the resignation of Fiona Paulus.
At least one of the senior board positions (Chair, Chief Executive Officer (CEO), Senior Independent Director (SID) or Chief Financial Officer (CFO)) is a woman.	0 positions meet this target	This is an area that would require sudden and significant change, and cannot be immediately implemented without disruption to the organisation. The intention is to take this into consideration as part of succession planning.
At least one member of the board is from a minority ethnic background (which is defined by reference to categories recommended by the UK Office for National Statistics (ONS)).	0 Board members meet this target	The Board continues to take ethnic diversity into account when considering appointments, as per its Diversity Policy, whilst noting it will continue to consider diversity of the Board and the Company as a whole, based on our global footprint and operations, in a way which is best aligned with our growth agenda. Being an international company, we naturally reflect many different nationalities in the Board and senior management. This is a valuable input to ensure different cultures are represented within decision makers, warding against groupthink.

Table 1: Reporting table on sex/gender representation

	Number of board members	Percentage of the board	Number of senior positions on the board (CEO, CFO,SID and Chair)	Number in executive management	Percentage of executive management
Men	10	66%	4	3	60%
Women	5	33%	0	2	40%
Not specified/ prefer not to say					

Table 2: Reporting table on ethnicity representation

	Number of Board members	Percentage of the Board	Number of senior positions on the Board (CEO,CFO,SID and Chair)	Number in executive management	Percentage of executive management
White British or other White (including minority -white groups)	12	80%	4	4	80%
Mixed/Multiple Ethnic Groups					
Asian/Asian British				1	20%
Black/African/ Caribbean/Black British					
Other ethnic groups, including Arab					
Not specified/ Prefer not to say	3	20%			

Notes to the tables:

1. Data collection of the Board and the EMT was undertaken as part of our regular year-end data collection.
2. The Board and EMT were provided with the categories above and asked to advise how they identified.
3. The personal data has been collected once and it will be up to the individuals to advise of any changes.

Succession planning

EMT succession planning

The Committee monitors the development of the EMT below the Board to ensure that there is a diverse supply of senior executives and potential future Executive Directors with appropriate skills and experience.

The Committee considers the skills and experience of individuals at different levels in the organisation with an indication of their expected time to develop to the next level, and requirements in order to achieve that progression, such as experience of a different business function or additional training. Furthermore, it considered how succession planning would be treated in different scenarios (e.g. in an immediate scenario or in an orderly fashion). A summary of this was provided to the Board for its consideration. Diversity is considered as part of succession planning, and management are encouraged to incorporate tools and measures to further generate and encourage diversity in the pipeline of the organisation.

The continuing decrease in gender diversity of the EMT's direct reports, as a result of various restructures and departures of individuals who were not replaced, was noted by the Board as disappointing. The associated causes have been noted and in Board discussions, management have been encouraged to refocus their efforts in order to drive progress in 2022. The Head of Diversity, People & Culture has outlined the initiatives being taken by the organisation to promote diversity, particularly gender, in recruitment processes and networking support for existing female leaders. Information on the gender diversity of the EMT and its direct reports is on **page 61**. Board members have also offered their assistance with mentoring to further support efforts.

As a result of the regionalisation and the SG&A cost reduction programme, the CEO, supported by the Board, took steps to reorganise the allocation of responsibilities amongst the EMT. The role profiles, capability and capacity of each EMT member were considered and responsibilities reallocated so as to better align with the regional focus and the strategic priorities of the business. This resulted in Luis Bittencourt stepping away from his EMT role to take on a specialist role focused on Global Research & Development and Raw Materials strategy. Rajah Jayendran will take on responsibility at the EMT for the Group's sustainability governance and will be the interface with the CSC. The EMT as whole is involved and active in the sustainability strategy and agenda.

These EMT changes were effected in early 2023, with further organisational changes occurring below EMT in Q2 2023, and the Board expects that the organisation will benefit from fresh perspectives and reinvigorated approaches.

Board succession planning and composition

Since the Committee last reported to shareholders, Fiona Paulus resigned her position as an Independent NED and Sigalia Heifetz has indicated her intention not to stand for re-election at the next AGM in 2023. The Committee has recommended to the Board that a search for two new Independent NEDs be undertaken. The Committee is leading this search and is considering a clear scope of desired attributes, skills and experience agreed with the Board. As part of its ongoing monitoring of Board composition, the Committee takes into account the independence and diversity of the Board, and these are cornerstone considerations in the search for new Directors.

A range of candidates are being considered, and in order to make a selection, a shortlist will be made and then a thorough interview process undertaken, with a number of different Directors, and detailed references obtained before nomination by the Board to shareholders. The Committee is focused on ensuring a full and detailed, open search for the right persons for the roles who meet the business' needs, and do not want to undertake this search with undue haste. The Committee is aided in the comprehensive search by Egon Zehnder, signatory to the Voluntary Code of Conduct for Executive Search Firms. Egon Zehnder has no other connection to the Company or individual Directors.

The Committee considers succession planning for key roles such as the CEO and CFO on an ongoing basis, both on the basis of immediate and orderly succession. The development of internal candidates for these roles is considered by the Committee and the Board, along with the wider assessment of talent and resources to enable consideration of succession planning in the organisation.

On an ongoing basis, the Committee considers the tenure of Directors with reference to the retirement and resignation profile, which can be found on the Company website. In thinking about future recruitment to the Board, the Committee continues to monitor Directors' skills and experiences, as well as diversity, to engender constructive debate and a varied mix of ideas. The Board profile is published on the Company website.

As of November 2022, there were changes in Board Committee composition following the departure of Fiona Paulus:

- Jann Brown became a member of the Remuneration Committee.
- Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg became a member of the CSC.

The Committee ensured that the refreshment of Board Committee composition made use of the Directors' skill sets and experience, and complied with the parameters of the respective terms of reference. The induction plans provided gave opportunity for greater understanding of these areas and the Committees are benefiting from fresh perspectives.

The membership of Board Committees can be found on **pages 114 to 116**.

Herbert Cordt
Chairman, Nomination & Governance Committee

Corporate Sustainability Committee report

Janet Ashdown
Chairman of the Committee

Committee members and meeting attendance[1]

	Attendance in 2022	Member since
Janet Ashdown (Chairman)	5/5	June 2019
Fiona Paulus[2]	4/4	June 2019 to October 2022
Marie-Hélène Ametsreiter	5/5	June 2021
Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg[3]	1/1	November 2022

1. One meeting was a joint meeting of the Audit & Compliance and Corporate Sustainability Committees.
2. Fiona Paulus resigned as a Director of RHI Magnesita NV on 17 October 2022 and accordingly ceased to be a Committee member.
3. Stanislaus Prinz zu Sayn-Wittgenstein was approved as a Committee member by the Board on 29 November 2022 and attended one meeting in 2022 as a nominee.

Committee purpose, roles, and responsibilities

The role of the Corporate Sustainability Committee is to support the Board and act as an advisory body to ensure the long-term sustainability of the business and the communities in which it operates.

- Through the oversight of relevant KPIs and the Group's performance against them, the Committee ensures that the Group's activities generate sustainable value, not only for customers and shareholders, but also for employees, suppliers and communities wherever the Group operates.
- On behalf of the Board, the Committee oversees the effective management of ESG risks including, but not limited to, climate change, health and safety and diversity.

More detail can be found in the Terms of Reference in the corporate governance section of our website.

Activities in 2022

The CSC met five times in 2022. In addition to performing the duties listed above, the Committee addressed the following issues:

Climate change

- Reviewed progress against RHI Magnesita's 2025 Targets including, but not limited to, CO_2 emissions intensity reduction targets.
- Reviewed the achievability of a Paris-aligned 'Science Based Target' and supported a decarbonisation strategy based on the proven and existing technologies that are feasible and commercially available.
- Received reports on the Group's carbon capture technologies research programme, pilot plants and reviewed opportunities to reduce customer CO_2 emissions.
- Received reports on the increased use of secondary raw materials, including undertaking a site visit to the Group's new recycling facility in Austria, new technologies, and trials of products with higher recycled content.
- Discussed management's approach to Internal Carbon pricing.
- Received reports on CBAM forthcoming regulation and its associated impacts on RHI Magnesita's operations.

Health & Safety

- Monitored RHI Magnesita's Health & Safety KPIs against 2025 Targets and benchmarking.
- Monitored performance at operational sites both employees and contractors and reviewed the incident reporting process, followed by recommendations of improvement and setting high priority on:
  - Preventing injuries and minimising risks.
  - Investing in control measures.
  - Engaging your entire workforce in health and safety.
  - Leading and striving for continual improvement in Health & Safety performance.

Sustainability risks

Reviewed revised sustainability risks in the context of the evolving regulatory environment, increased stakeholders' focus, and the Group's commitment to sustainability:

- Reviewed RHI Magnesita's sustainability risk assessment for 2022.
- Main changes in comparison to 2021 were in the fields of climate and environment, diversity, health and safety.

Communities

- Reviewed community relations and initiatives across the Group, followed by recommendations for improvements.

Diversity

- Monitored progress of RHI Magnesita's Diversity KPIs against 2025 Targets and the organisation's plans to improve the position.

Sustainable Supply Chain

- Received updates on sustainable procurement initiative to assess suppliers against ESG criteria via EcoVadis.
- Reviewed status quo of data gathering for product carbon footprint (PCF) data and the outlook for 2023.

Sustainability data assurance

- The Committee held a joint meeting with the Audit & Compliance Committee to consider the sustainability reporting data assurance plan. This joint meeting approved management's plan and requested that they continue to respond to stakeholders' expectations and check for conformity with the forthcoming legal requirements (e.g., CSRD sets out compulsory external assurance for FY 2024). The scope of assurance comprises conformity with GRI Standards, ISAE3000 (International Standard on Assurance Engagements) and EU Taxonomy regulation.

Group Policies

- Diversity Charter
- Quality, Health & Safety, Energy and Environment (IMS) Policy
- Human Rights policy
- Code of Conduct

External ESG ratings

The Committee was pleased to note that RHI Magnesita maintained its leading ESG score for CDP and a Gold rating from EcoVadis, amongst other positive ratings from independent analysts.

- CDP — A-
- EcoVadis — Gold
- MSCI — AA
- Sustainalytics — medium ESG risk

Janet Ashdown
Chairman, Corporate Sustainability Committee

> The role of the Corporate Sustainability Committee is to support the Board and act as an advisory body to ensure the long-term sustainability of the business and the communities in which it operates.

Audit & Compliance Committee report

John Ramsay
Chairman of the Committee

Committee members and meeting attendance

	Attendance in 2022[1]	Member since
John Ramsay (Chairman)	6/6	October 2017
Jann Brown	6/6	June 2021
Wolfgang Ruttenstorfer	6/6	October 2017

1. One meeting was a joint meeting of the Audit & Compliance and Corporate Sustainability Committees.

The primary role of the Committee is to assist the Board in fulfilling its oversight responsibilities in relation to the Group's audit, the effectiveness of the risk management framework and system of internal control, the integrity of the financial reporting as well as consideration of compliance and ethics matters.

Committee purpose, roles and responsibilities

The Committee monitors the effectiveness of the Group's corporate reporting, systems of internal control and risk management and the integrity and quality of the Group's external and internal audit processes.

The Committee's key responsibilities include but are not limited to:

Financial reporting

- reviewing the potential impact on the consolidated financial statements of the implementation of the Company's strategy, climate change and energy transition work;
- advising the Board on whether, taken as a whole, the reported financial information is fair, balanced, and understandable and provides the information necessary for shareholders to assess RHI Magnesita's position and performance, business model and strategy; and
- reviewing and discussing with management the appropriateness of judgements involving the application of accounting principles and disclosure requirements.

Risk management and internal control

- advising the Board on the Group's overall risk appetite, tolerance, current risk exposures and future risk mitigation strategy; and
- evaluating the effectiveness of the system of risk management and internal control.

Internal audit

- monitoring the functioning and quality of the Internal Audit department;
- reviewing and approving the annual Internal Audit work plan and taking note of the findings and considerations of the Internal Audit department;
- supervising the compliance with recommendations and observations of the internal and external auditors;
- assessing annually Internal Audit's performance and effectiveness.

Compliance and governance

- overseeing compliance with applicable legal and regulatory requirements, including monitoring ethics and compliance risks;
- reviewing the adequacy and effectiveness of the Group's Compliance function.

External audit

- considering the annual external audit plan, approving related remuneration, including fees for audit and non-audit services;
- assessing the performance, qualifications, effectiveness and independence of the external auditor and the audit process, including assessing the quality of the audit; and
- recommending the appointment of the external auditor to the Board for approval at the AGM.

Financial management

- advising the Board on the appropriateness of management Capital Allocation Policy; and
- reviewing on behalf of the Board management Treasury debt and Funding proposals.

Committee governance

Committee meetings normally take place the day before the Board meetings. The Committee Chairman reports to the Board, as a separate agenda item, on the activity of the Committee and matters of particular relevance. The Board has access to the Committee's papers and receives copies of the meeting minutes.

The Committee Chairman, the CFO, the Head of Financial Reporting, the Head of Internal Audit, Risk and Compliance and the External Auditor attend the Committee meetings and the Company Secretary acts as Secretary to the Committee. Board members can attend at their discretion; the Company Chairman and the CEO typically attends each meeting and other Company executives are invited to attend for specific agenda items. The Committee has had private sessions throughout the year with the External Auditor and Chief Audit Executive to discuss views on management and responses to issues raised in the meetings. The Committee Chairman has had regular private discussions with the External Auditor, the CFO, the Head of Financial Reporting and the Chief Audit Executive during the year.

Wolfgang Ruttenstorfer, a member of the Committee, is not independent under Provision 24 of the UK Corporate Governance Code. He is, however, independent under the Dutch Corporate Governance Code. The Committee's Terms of Reference clarify that a member must be independent under either Code and the Directors remain comfortable that Wolfgang remains independent in his approach and actions as a Director and member of the Committee. Further explanation of the position under Provision 24 of the UK Corporate Governance Code can be found on **page 98**.

Activities during the year

Contact with regulators

In November 2022, the Committee reviewed a letter received from the UK FRC on its review of the Group's 2021 Annual Report and Accounts. Their review was limited to those aspects of the report and accounts that relate to the application of 'IAS 33 Earnings per Share (EPS).

The FRC had no questions or queries that they wished to raise with the Group. The FRC highlighted a number of areas where it believed that users would benefit from further improvements to the disclosures as explained in more detail within APMs section below; where appropriate, the Group has enhanced these disclosures in its 2022 Annual Report and Accounts.

In February 2023, the Committee reviewed the Company's response to the FRC Consultation on Audit Committee Standard.

Financial reporting

How the Committee reviewed financial disclosures

The Committee reviewed the half-year and annual financial statements with management, focusing on:

a) Integrity of the group's financial reporting process

b) Compliance with the relevant legal and financial reporting standards

c) Application of significant judgements and estimates

d) Clarity of disclosures

As part of its review, the Committee received regular updates from management and the External Auditor in relation to accounting judgements and estimates, including those relating to recoverability of asset carrying values, provisions and uncertain tax treatments. Furthermore, the Committee received an update as to how Management have complied with the European- Single Electronic Format requirements in 2022.

Alternative Performance Measures

RHI Magnesita uses APMs to provide greater insights into its financial and operating results and provide readers with a more understandable and comparable view on underlying performance. The Committee regularly considers the APMs used in RHIM's reporting, the reconciliations to IFRS financial statements and explanations for changes from the previous quarter. The Committee reviews the overall presentation of APMs with management to ensure they are not given undue prominence in relation to IFRS financial measures. The Committee discusses adjusting items with management including any changes to methodology.

Following the letter received from the FRC, management have clarified the definition of 'Adjusting items' to provide further transparency on the items it includes. The Committee has also considered the presentation of Generally Accepted Accounting Principles (GAAP) and non-GAAP measures to ensure appropriate prominence is given to GAAP measures and that non-GAAP measures are presented consistently and can be clearly reconciled.

Fair, balanced and understandable

The Group's Annual Report should be fair, balanced, understandable and provide the information necessary for stakeholders to assess the Group's position, performance, business model and strategy. The Committee and the Board are satisfied that the 2022 Annual Report meets this requirement, with appropriate weight having been applied to both positive and negative developments throughout the year.

To arrive at this conclusion, the Committee critically assessed drafts of the 2022 Annual Report, including the financial statements, and discussed with management the process undertaken to ensure that the relevant requirements were met. This process included: review structural changes to the financial statements in 2022 to make them clear, concise and focusing on enhancing the disclosure on key accounting judgement and estimates, verifying the consistency of the narrative disclosures and the financial statements, the assurance received for non-financial reporting. Further actions included comparing the contents of the 2022 Annual Report to ensure it is consistent with the information shared with the Board and with disclosures to shareholders during the year to support the Committee's assessment of the Group's position and performance; ensuring that consistent materiality thresholds are applied for favourable and unfavourable items; and receiving assurance from the Executive Management.

Compliance

Compliance programme

The Committee reviewed and challenged the annual Compliance programme as presented by management. The Committee sought to ensure that the Compliance programme remained fresh, as well as enquiring of management to understand resource levels, capabilities and training. The Committee discussed investigations of cases involving ethics and compliance concerns. The Committee discussed management's findings in such cases to satisfy itself that a rigorous process had been followed, and that appropriate disciplinary action had been taken where necessary and management had embedded learnings into RHI Magnesita's systems and controls. Furthermore the Committee reviewed and approved the anti-corruption policy and updates to the Code of Conduct.

Whistleblowing programme

The whistleblowing programme, which is monitored by the Committee and overseen by the Board of Directors, is designed to enable employees, customers, suppliers, managers, or other stakeholders to raise concerns on a confidential basis where conduct is deemed to be in violation of our Code of Conduct or contrary to our values.

The Committee discussed with management the whistleblower reports received in 2022. The Committee made enquiries of management in relation to the reports received on the whistleblowing programme in order to conclude its effectiveness during 2022. The Committee accepted management's explanation that the cases in 2022 each related to individual circumstances and had been appropriately investigated and root causes addressed.

Audit & Compliance Committee report
continued

Examples of how accounting judgements and estimates were considered and addressed

Significant financial judgements and areas of estimation	How the Committee addressed these judgements and areas of estimation
Carrying value of property, plant and equipment (PP&E)	The Committee reviewed the assessment prepared by management on certain assets. In particular, management presented a detailed overview of the assessment in relation to the impairment and impairment reversal indicators. The Committee enquired on the judgements made and the sensitivities to the Group weighted average cost of capital. Conclusion: The Committee concurred with management's assessment and ensured there was an adequate disclosure of this judgement in the Annual Report and Accounts.
Going concern and viability	A detailed cash flow analysis was prepared by management and provided to the Committee, including a number of sensitivity scenarios. The Committee then reviewed and challenged the assumptions and judgements in the underlying going concern and viability statement forecast cash flows. Following the feedback and challenge from the Committee, management have introduced a reverse stress test as part of their analysis. The Committee discussed with management the risks, sensitivities and mitigations identified to ensure the Company can continue as a going concern and viable. Conclusion: The Committee concurred with management's assessment and ensured there was an adequate disclosure of this judgement in the Annual Report and Accounts.
Own use exemption on take or pay gas and electricity contracts	The Committee review management's judgement on the use of take or pay gas and electricity contracts used in 2022. Management uses judgement to conclude that the Group can use the 'own use exemption' under accounting standards. Conclusion: The Committee is satisfied by the judgement applied and the disclosures made in the Consolidated Financial Statements. Please refer to Note 3 of the financial statements.
Goodwill	Management provided the Committee with an update on the Goodwill impairment review that it is performed annually. Management makes use of various estimates and assumptions in determining the cash flow forecasts used in the impairment testing for goodwill, including terminal value, inflation, and discount rates. Conclusion: The Committee concurred with management's assessment and ensured there was an adequate disclosure of this judgement in the Annual Report and Accounts.
Uncertain tax and regulatory treatments	The Committee reviewed management's assessment of the Group's uncertain tax treatments, which took into account the views of the relevant tax authorities and any external advice it received. In particular, it considered the Group's claims in Brazil given the total exposure to the Group. Conclusion: The Committee was satisfied that the provisions and disclosures made in respect of uncertain tax positions were appropriate. The relevant disclosures are set out in Note 39 of the financial statements.
The impact of climate change on the Group's financial reporting and financial statements.	The Committee was briefed on key regulatory requirements including the FRC and EU disclosure requirements and their implications for RHI Magnesita's external disclosures. The Committee reviewed the new Note 4 of the financial statements summarising the key climate risks impacts on the Financial Statements as well as the new impairment sensitivity disclosures using carbon price outlooks based on different external climate change scenarios. Conclusion: The Committee, recognising the evolving nature of climate change risks and responses, concluded that climate change has been appropriately considered by management and agreed with the disclosure made by management. The relevant disclosures are set out in Note 4 of the financial statements.
Retirement benefit obligations	The value of the Group's defined benefit pension plan obligations is determined by making financial and demographic assumptions, both of which are significant estimates made by management. The Committee was briefed on the risks in relation to retirement benefits in 2022, including financial, operational, and regulatory developments. The Committee reviewed the key assumptions, including inflation, discount rates and sensitivities as part of the 2022 Annual Report review. Conclusion: The Committee was satisfied that management had used appropriate assumptions that reflected the Group's most recent experience and were consistent with market data and other information. The Committee was also satisfied that the Group's disclosures made in respect of retirement benefit obligations are appropriate. The relevant disclosures are set out in Note 29 of the financial statements.
Assessing control over Horn & Co Minerals Recovery GmbH & Co KG ('Horn & Co')and recognition of non-controlling interest.	During the year, the Group acquired a 51% interest in Horn & Co which has been fully consolidated as part of the Group. In arriving at this conclusion, management provided the Committee with a review of the judgement they applied to assess the level of control in Horn & Co. In particular, the ability to exert control through its voting rights at the shareholding meeting which is deemed the ultimate decision-making body. Conclusion: The Committee agreed with management that the Group has the ability to direct the relevant activities of Horn & Co joint venture and therefore. The relevant disclosures are set out in Note 3 of the financial statements.

Risk management

How risk management was assessed

The Internal Audit, Risk & Compliance team provides key assurance to the Committee on the Group's governance, risk management and internal control. Throughout the year, the Committee discussed the reports on risk management and challenged management on whether risks had been sufficiently considered and reflected. Management took onboard the comments and adjusted assessments as necessary.

The Committee evaluated a presentation that discussed the risk of 'black swan' events. As part of this discussion they challenged capital expenditure and the benefit realisation, considered the competitive landscape with reference to regional strategies, and the associated supply-chain costs of such strategies.

The Committee also received reports with an overview of the effectiveness of the programme to manage ethics and compliance risks in the Group's business activities, regulatory developments, and compliance activities. The Committee also discussed investigations of cases where ethics and compliance concerns were highlighted. The Committee discussed management's findings in such cases to satisfy itself that a rigorous process had been followed, that appropriate disciplinary action had been taken, where necessary, and management had embedded learnings into RHIM's systems and controls.

Internal control

In order to monitor the effectiveness of the procedures for internal control over financial reporting, compliance and operational matters, the Committee reviews reports on risks and controls, including the annual assessment of the system of risk management and internal control. This annual assessment includes the Committee's review of outcomes from the Group management representation letter process. The Group management representation letter process involves each EMT member and Regional President and their direct reports conducting a structured internal assessment of compliance with internal controls, legal and ethical requirements.

The Committee discussed a number of areas where further straightening of internal control can be achieved. These are noted on **page 49** of the Annual Report.

Internal audit

Reviewing the results of Internal Audit work and the 2023 plan

The Committee reviewed the effectiveness and resources of the Internal Audit department and concluded that the Internal Audit function is effective and has adequate resources. The Committee gave particular focus to the assessment of the independence of Internal Audit within the combined departmental model of Internal Audit, Risk & Compliance. The Committee recognised the range of findings from Internal Audit work which demonstrated the required level of Internal Audit independence and the overall high quality of the audit work performed. The Committee satisfied itself that the 2022 internal audit plan was on track and discussed areas where control improvement opportunities were identified, particularly enquiring into the root causes and the embedding of internal control improvements. The Committee also reviewed progress in completion of agreed management actions.

In 2022, the role of the Chief Audit Executive (CAE) has been outsourced to EY whilst the former CAE moved to a role leading an internal project for the enhancement of financially-based processes. The Committee reviewed the effectiveness of this set-up and concluded it to be effective.

The Committee reviewed the proposed 2023 Internal Audit plan. The Committee raised a series of challenges to the plan focusing on any impact to Internal Audit quality and independence and following receiving appropriate assurances and supplementary information, the Committee approved the proposed approach. The Committee approved the 2023 Internal Audit plan, having discussed the scope of work and its relationship to the Group's risks.

The Committee considered and endorsed the proposal to retain the outsourced CAE until 31 March 2023. From 1 April 2023, the former CAE will return to the role having completed the role leading the process improvement project.

External audit

How the Committee assessed audit risk and audit effectiveness

PricewaterhouseCoopers Accountants N.V. (PwC) set out its audit plan for 2022, identifying significant audit risks to be addressed during the course of the audit. These included:

- significant assumptions used to estimate the impairment of goodwill are not reasonable;
- significant assumptions used to estimate the impact of uncertain tax treatments on current and deferred taxes are not reasonable;
- management override of controls; and
- fraud in revenue recognition.

In view of the Group's elevated levels of inventory and a deteriorating macroeconomic outlook, the Committee directed the external auditors to enhance the testing on inventory and trade receivables.

The Committee reviewed and discussed the audit plan and evaluated whether the planned materiality levels and proposed resources to execute the audit plan were consistent with the scope of the audit. The Committee received updates throughout the year on the audit process, including how the auditor had challenged the group's assumptions on the significant audit risks.

As part of its oversight of the External Auditor, the Committee annually assesses the performance and effectiveness of the External Auditor and the audit process. This includes assessing the quality of the audit, how the auditor handled key judgements, and the auditor's response to the Committee questions.

The Committee receives a summary of areas of opportunity for improvements to processes related to financial reporting or internal control identified as part of the audit process and management's response to recommendations identified and progress made against prior year.

Audit & Compliance Committee report
continued

How the Committee assessed the audit fees

The Committee reviews the fee structure, resourcing, and terms of engagement for the External Auditor once a year; in addition, it reviews the non-audit services that the auditor provides to the Group half-yearly.

How the auditor independence and objectivity were assessed

The Committee considers the reappointment of the External Auditor each year before making any recommendation to the Board. The Committee assesses the independence and objectivity of the External Auditor on an ongoing basis, taking into account the assurances provided by the External Auditor and the level of non-audit fees. Furthermore, the External Auditor is required to rotate the lead partner every five years and other senior staff every five to seven years.

The Committee reviews on an annual basis updates to the auditor independence policy in respect of the provision of services by the External Auditor for necessary changes in response to changes in related standards and regulatory requirements.

During 2022, non-audit work mainly relate to the interim review of the Consolidated Financial Statements at 30 June 2022 amounting to €0.2m (2021: €0.2m)

Other matters:

Enhancement of financially based processes

The Committee received three updates on the timescale, scope, progress and outcomes of the project driving enhancements to financially based processes. The Committee discussed with management the root causes for the challenges faced in driving effective process execution. Various team members from the project presented to the Committee to show the achievements and respond to challenges from the Committee on the solutions being adopted. The Committee made enquiries to understand the historical context and status of the processes and to challenge the impact of corporate strategies (such as devaluation of responsibility to geographical region) on core process execution and internal controls. The Committee welcomed the transparency, requested additional clarity in the update reporting of the project and emphasised the important roles of ongoing training and change management in the continual improvement and the effectiveness of the organisation and its culture.

Tax

The Committee reviewed and approved the Global Tax Policy as well as the Tax Control Management System, The Committee challenged Management on the methodology to calculate the ETR and the impact to the ETR calculation in respect to the unrecognised Austrian tax asset following the discussions with the Austrian Tax authorities. The Committee received an update of the progress with these discussions.

Information security risks

The Committee continued to focus on information security risks, particularly as specified in the Dutch Corporate Governance Code. Cyber and information security risk is included as one of the Group's principal risks on **pages 52 to 57**. Multiple presentations were received by the Committee to both inform the Committee of the emerging risks and outline the internal controls. The Committee gave specific attention to the results of "phishing" tests and the measures taken by management to improve awareness levels amongst staff of this risk. The Committee requested a greater insight into the Company Crisis Management plans and their application to any information security risk based incident.

Treasury

The Committee reviewed the Treasury policy and made enquiries of management in relation to the funding options to support the delivery of the Company's strategy. Furthermore, the Committee reviewed the syndicated loan term refinancing and recommended the Board for its approval. Management also presented the proposed hedging strategy, its policy, the delegated authority levels and the different accounting consequences.

Regulatory developments

In June 2022, the UK Government's Department for Business, Energy & Industrial Strategy (BEIS) released the response to the consultation paper entitled "Restoring trust in audit and corporate governance" launched in March 2021. The Committee and management discussed the Government's response to the consultation paper, including implications for the Company, the Board, and the Committee. The Committee reviewed management's proposed plans to address the changes and discussed the potential implementation roadmap to certain topics in the consultation paper, whilst acknowledging that further clarity and precision is expected in due course.

Disclosure committee

The Disclosure Committee, chaired by the CFO, ensures compliance with the Market Abuse Regime. It shares the minutes and matters considered with the Committee on an ongoing basis to provide transparency of matters considered by the management to keep the Company compliant with its disclosure requirements.

Committee effectiveness

As part of the overall Board Effectiveness review 2021, the Committee considered its performance in early 2022 which continued to be rated as highly effective. The Committee agreed on areas of focus for 2022 around financial and business systems and process improvement, ensuring the effectiveness of the Internal Audit function in being outsourced to EY, the increase in non-financial disclosures and their importance, and cyber security in the environment of increased threats. The Committee reviewed its 2022 performance in February 2023 and the assessment will be reported on in the 2023 Annual Report.

Site visit during the year

In April 2022, the Directors of the Board conducted a week-long visit to sites in Austria and Germany, and a Committee meeting took place in the course of the trip. Key areas of discussion during the site visit included inventory management, feed of financial information from the plants to the central teams and how this impacts on the overall financial reporting. More details on the Board site visit are provided on **page 101**.

John Ramsay
Chairman, Audit & Compliance Committee

Remuneration Committee report

Janet Ashdown
Chairman of the Committee

Committee members and meeting attendance[3]

	Attendance in 2022	Member since
Janet Ashdown **(Chairman)**	5/5	October 2020
Karl Sevelda	5/5	October 2017
Fiona Paulus[1]	4/4	June 2021, resigned October 2022
Jann Brown[2]	1/1	December 2022

1 Fiona Paulus resigned as a Director on 17 October 2022.
2 Jann Brown was appointed to the Committee by the Board on 29 November 2022.
3 Each Committee meeting was constituted, in line with the Committee Terms of Reference, with membership that was compliant with the Dutch and UK Corporate Governance Codes.

The Remuneration Committee ensures that rewards are consistent with performance and that the Company's Remuneration Policy provides a strong alignment between its shareholders and executives.

Current Committee membership and operation

Janet Ashdown is the Chairman of the Committee. Jann Brown and Karl Sevelda are current members of the Committee. All Committee members are Independent NEDs within the meaning of the UK and Dutch Corporate Governance Codes. The Company Secretary is the secretary to the Committee. Other individuals, such as the Chairman of the Board, the Chief Executive Officer, the Executive Vice President People, Projects & Value Chain (who is responsible for Human Resources), and external professional advisers may be invited to attend for all or part of any meeting as and when appropriate and necessary. No individual is present when their own remuneration is discussed. The Committee meets at least three times a year and at such other times as the Chairman of the Committee shall require or as the Board may direct.

Committee purpose, roles and responsibilities

The Remuneration Committee's purpose is to develop a reward package for Executive Directors and senior managers that supports our vision and strategy as a Group, and to ensure the rewards are performance based, encourage long term shareholder value creation, and take account of the remuneration of the whole workforce. Please click **here** to Terms of Reference.

Changes in the Committee

Jann Brown joined the Committee as a member following Fiona Paulus who stepped down as a Director on 17 October 2022.

Activities in 2022

The key activities and decisions taken throughout the year were:

- Considering market and corporate governance trends and how they might apply to the Company. Reviewing and amending the Terms of Reference of the Committee
- Committee effectiveness review and action steps agreed
- Considering retention and incentivisation concerns in light of LTIPs continuing not to vest
- Considering the outturn of the 2021 and 2022 bonus, the performance of in-flight LTIPs, reviewing the 2022 and 2023 bonus and LTIP performance conditions and targets
- Reviewing the remuneration of the Executive Directors, EMT, and Senior Management within the context of wider global workforce remuneration
- Reviewing the fee for the Chairman of the Board
- Overview of the incentivisation and remuneration of the Group's wider workforce to ensure that it is competitive and aligns with Company culture
- Review of the performance of remuneration advisors and their scope of services

Dear Shareholders

On behalf of the Board, I present our 2022 Directors' Remuneration Report. This report includes my letter to the shareholders, our Directors' Remuneration Policy, approved by shareholders at the 2021 Annual General Meeting and our Annual Report on Remuneration for the year ending 31 December 2022.

RHI Magnesita is incorporated and registered in the Netherlands, making it subject to Dutch corporate law. It has its primary listing on the London Stock Exchange and a secondary listing on the Vienna Stock Exchange. We are required to comply with UK, Dutch and Austrian reporting requirements and the UK and Dutch Corporate Governance Codes. You can read more about our Governance on **page 97**. Our Remuneration Report is therefore presented on this basis and, recognising transparency of reporting, includes certain voluntary disclosures. This letter on **pages 132 to 135**, the summary on **page 135** and the Annual Report on Remuneration on **pages 137 to 147** will be presented for approval by an advisory vote at our AGM on 24 May 2023.

Remuneration is aligned with our strategy, culture and operations

Our Remuneration Policy is to maintain a competitive remuneration package that promotes the long-term success of the business, avoids excessive or inappropriate risk taking and aligns management's interests with those of shareholders. We are committed to transparent communication with all our stakeholders, including our shareholders. Performance for senior management and all other managers is measured against one set of Company KPIs. There is clear alignment between the performance of the Company, the business strategy, and the reward paid to Executive Directors.

RHI Magnesita's performance during 2022

2022 has been another extraordinarily difficult year for everyone, including RHI Magnesita. Business volatility has continued, arising from global supply constraints, including energy supply and pricing, and more general inflationary pressures (caused by the Russia/Ukraine conflict); stagnation and recession remain evident. The Russia/Ukraine conflict has significantly impacted our business with both Ukraine and Russia. The cost escalation and inflationary pressures persist in spot energy markets and on certain freight routes utilised by RHI Magnesita. Despite this the Company continues to demonstrate resilience due to its balanced and diversified global footprint. Some costs have been successfully passed on to customers via increased product pricing and our plans for ensuring continuity of energy supplies in Europe are on track including new infrastructure to offset potentially reduced gas availability through switching to alternative fuels. All measures together will replace up to 50% of our normal usage of natural gas in Europe in the event of supply rationing.

However, our order books are full and demand of refractories for steel and cement remain broadly stable. Our working capital has also increased due to increases in raw material inventories ahead of anticipated shortages as detailed on **page 39**. As laid out in the Chairman's Statement and the CEO Review, despite all these difficulties, the Group recorded in 2022 a robust revenue of €3,317 million, which means an increase of 30% against the prior year; adjusted EBITA of €384 million, an increase of 37.1% compared to 2021; and an increase in operating free cashflow of €155 million compared to € (236) million in 2021. It has been within this context that the Committee has considered the Annual Bonus scheme, the 2022 outturn and the 2023 targets, as well as reviewing 2020 LTIP performance and agreeing 2023 LTIP performance conditions.

Executive Directors' remuneration 2022

As set out in the Annual Report on Remuneration, our remuneration outcomes for the year were as follows:

Salary and benefits

As set out in the 2021 Remuneration Report, the salary of the CEO and CFO were increased by 4.5% which aligned to the workforce in Austria. The CEO's benefits were also reviewed for 2022 to include health insurance and tax advisory support.

Annual Bonus Plan

As part of target setting for the 2022 annual bonus the Committee reviewed and set the threshold level of payment for the Executive Directors at 25% of maximum to align with the rest of the business and to reflect the level of stretch set in the threshold targets.

Despite the continued economic uncertainty and the general impact the Russia/Ukraine conflict has had on the global economy, EBITA performance was just above threshold with Operating Cash Flow below. Performance against our strategic objectives has been strong. The resulting bonus of 42% of maximum for both Executive Directors is considered fair and appropriate taking into account the alignment to bonus payments for the rest of the business and in the context of overall performance of the business against the continuing economic and market challenges. The Committee has noted the exceptional work that has been undertaken to manage the business including ensuring continuity of energy supplies through this continued period of uncertainty. As a result, the Committee agreed that the level of formulaic bonus was appropriate and the exercise of discretion was not required.

Further details of our performance against 2022 bonus targets can be seen on **page 150**.

LTIP

With regard to performance over the longer term, the 2020 LTIP Awards will vest to the extent that the EPS growth and Total Shareholder Return (TSR) performance targets are met. The EPS targets were assessed against performance to 31 December 2022 and there is maximum vesting under this element. For the TSR element, performance is assessed for a period of three years from the date of grant, therefore the Company's TSR and vesting of the TSR element cannot be ascertained until April 2023. Based on a recent assessment of the Company's TSR the threshold target for the TSR element is close to being met but is still below threshold. On this basis, the total estimated vesting for this award is therefore 50% of maximum. The Committee considered business performance during 2022 as well as over the longer three-year performance period for the 2020 awards and is comfortable that the formulaic outcome of the incentives, based on vesting of the EPS element only at this time, appropriately reflects Group performance as well as the executives' individual contribution and that no discretion to adjust is necessary. The Committee is also very pleased to see the first vesting of an LTIP award since our initial public offering (IPO). The actual TSR performance and vesting level will be provided in the 2023 Directors' Remuneration Report.

More details are available on **page 150**.

Windfall gains

The Committee is aware of investor and proxy agency concerns regarding LTIP "windfall gains" and has considered whether market movements risk creating a windfall gain for executives on the vesting of the 2020 LTIP. RHI Magnesita's share price volatility has resulted in LTIP awards being granted over a number of years at wide ranging share prices. Because of this year to year volatility, it is very difficult for the Committee to assess and determine a prior year grant price against which a level of scale back for future LTIP grants should be considered. Therefore, the Committee has taken the approach of reserving discretion to scale back awards at vesting if it considers the level of vesting in all the circumstances to be inappropriate including where the resulting vesting would give rise, in the Committee's view, to a "windfall gain".

The 2020 award will not vest until the third anniversary of grant on 8 April 2023 and the matter of windfall gains will not be finally determined until that time. However, given the current share price of broadly £27 and the grant price of £19.98, the level of estimated vesting at 50% of maximum, the total estimated vesting value and noting that this is the first award since IPO where there is some vesting, the Committee does not consider at this time that there will be "windfall gains" that require the Committee to consider a scale back of the vesting level.

The Committee is comfortable that the Policy operated as intended during the year.

LTIP awards granted in the year

LTIP awards were made to the CEO and CFO on 8 March 2022 at normal grant levels of 200% of salary for the CEO and 150% of salary for the CFO. The measures for the 2022 awards were of 50% adjusted EPS, 25% absolute TSR and 25% Reduction in CO_2 emissions per tonne to support management's focus on delivering material increases in the share price (plus dividends) and sustained aggregate EPS over the performance period as well as our environmental commitments. Details of the awards and performance conditions can be found on **page 151**.

Implementation of the Remuneration Policy for 2023

Base salaries

The base salaries of the CEO and CFO were increased by 4% with effect from 1 January 2023 compared to average employee increase in Austria of 8.9%. The same 4% increase for the Executive Directors has been applied to the Chairman and Non-Executive Director fees.

More generally the Committee has noted, and is comfortable with, the overall approach that has been made to salary increases. The business has focused the most significant part of the salary budget on the lower paid who have faced the greatest challenge with inflation and cost of living pressure with broadly all of our employees, except of the most senior levels of management, receiving salary increases based on actual inflation rates in their country of employment.

Annual bonus

The maximum bonus opportunity for 2023 is unchanged from 2022 at 150% of salary. The Committee has reviewed the performance measures for 2023 and has made the following adjustments which reflect the key priorities of the business for the year ahead. Profit of course remains a key performance indicator accounting for 55% of the bonus opportunity. We have increased the weighting to Group EBITA (excluding new acquisitions) from 35% to 45% of the total bonus with a further 10% focused on EBITDA from new acquisitions. Operating Cash Flow has not been an effective measure over the year primarily because of the impact of cost inflation on working capital and our sales cycle. We are therefore replacing it with Inventory Coverage and reducing the weighting to 25% of the bonus focusing the business on managing costs and product availability within acceptable ranges. Within our strategic bucket we are retaining our focus on recycling, measuring the use of secondary raw material and have introduced a customer focused measure, PIFOT (produced in full on time), measuring delivery of product and transport in time to your customers. Our bonus metrics are cascaded throughout our business and PIFOT is a specific area of focus for the year ahead. The targets and performance against them will be disclosed retrospectively in the 2023 Remuneration Report, provided they are not considered to be commercially sensitive at that time.

LTIP

The quantum of the CEO and CFO's LTIP awards for 2023 remain unchanged with a face value of 200% and 150% of salary, respectively. The awards will be made in March 2023 based on the share price at that time. Executives will receive the award shares in 2028 (following the three-year vesting period and two-year holding period) if performance targets are met. The performance targets that will determine vesting of the share awards, will continue to be based on absolute TSR and Adjusted EPS targets reflecting the ongoing focus of management to deliver material increases in the share price (plus dividends) and sustained EPS growth. The Committee continues to include a third ESG related performance measure, the reduction of CO_2 emissions intensity supporting the longer-term focus of management on reducing carbon emissions with our targets aligned to our updated 2025 plan which is referred to in further detail on **page 65**. The performance targets are set out on **page 157**. The Committee is comfortable, taking into account the ongoing economic and market uncertainty as well as the business outlook that the targets are as challenging as those set for prior LTIP awards, whilst recognising the need to provide the right balance in terms of incentivisation and retention.

The Committee will review the share price at the time the 2023 LTIP awards are made. However, at this time, noting that the current share price at circa £27 and the price at which awards were made last year, it is not concerned that the 2023 LTIP award could result in windfall gains.

ESG metrics

RHI Magnesita continues to demonstrate significant commitment to ESG matters through relevant initiatives and measures. We are proud to be the first company within our industry to make the CO_2 footprints of our c.200,000 products transparent and comparable by disclosing them in our technical data sheets.

The Company has also set ambitious targets in respect of reducing CO_2 emissions ("CO_2 intensity reduction target"). Since the baseline year of 2018, the Group has exceeded its targets in use of Secondary Raw Materials which has contributed to progress against the CO_2 intensity reduction target, but this has been offset by slower progress on switching to alternative fuels. These fuel switches are now uncertain due to disruption in the market for natural gas. If reliable supplies of natural gas are not secured by 2025, the Group may fail to meet its CO_2 intensity reduction target, with the current estimated outcome, excluding fuel switches, being at 12%. For further details on progress against our sustainability targets, please refer to **page 65** of this document.

We continue with the approach taken in 2022 to include Secondary Raw Materials and CO_2 emissions intensity targets in our bonus and LTIP respectively. The Chairman of the Committee is also the Chairman of the Corporate Sustainability Committee, our ESG targets are quantifiable, based on regularly reported operational and management information, and CO_2 emissions intensity are assured by an independent third party.

How our remuneration practices support our strategy

Element of reward	Metrics	Strategic Pillar- Market Leadership	Strategic Pillar- Enhance Business Model	Strategic Pillar- Execute Cost Reductions
Bonus	Profit		●	
	Free Cash Flow			●
	Inventory coverage		●	●
	Strategic initiatives	●	●	●
LTIPs	Earnings Per Share			●
	Total Shareholder Return	●		●
	Economic Profit	●		●
	Use of Secondary Raw Materials		●	
	Reduction of CO_2 emissions	●	●	

Engagement with the workforce

In 2022 the Board continued with visits to several plants including Leoben, Marktredwitz, Hochfilzen, Urmitz and Koblenz, taking the opportunity to hear feedback directly from colleagues across the Company. The feedback we received was very supportive. During the year, the Committee also reviewed the bonus structure for all employees. The Chairman of the Board participated in the Austrian Works Council Conference where he gave insights on the world economy situation and a macroeconomic outlook.

Our conversations with our shareholders

Our current Remuneration Policy was approved at the 2021 AGM. The Committee is comfortable that the Policy meets shareholder expectations, and that the Remuneration Policy has operated as intended during 2022. The remuneration outcomes for 2022 are aligned to the Company's strategy, the complex structure of the business and the long-term shareholder interests.

Last year I mentioned that during 2022 the Committee would take the time to consider the Company's remuneration practices and Remuneration Policy afresh in light of the macro-social economic changes we had experienced as a result of the COVID pandemic, to ensure it remains fit for purpose. The Committee did this but concluded that no immediate changes were required, given the triennial review timetable requires shareholders to approve an updated policy at our 2024 AGM. During the course of 2023 I will therefore be reaching out to our shareholders to seek feedback on our current policy and any changes that we are proposing.

As outlined in the Corporate Governance Statement on **page 98**, we are reporting partial compliance with Provisions 36, 40 and 41 of the UK Corporate Governance Code on Remuneration. We explain our partial compliance in the Corporate Governance Statement and will continue to keep our practices under review in respect of these provisions, particularly as part of the review during 2023 of our Directors' Remuneration Policy which is subject to shareholder approval at our 2024 AGM.

At the 2023 AGM, shareholders will be asked to vote on the Directors' Remuneration Report (excluding our Remuneration Policy which is subject to a shareholder vote at our 2024 AGM). I hope that the Committee will have your support.

On behalf of the Committee, I would like to thank shareholders for their input and engagement in the year, and we welcome any comments you may have on this report.

Janet Ashdown
Chairman, Remuneration Committee

At a glance: Operation of Remuneration Policy for the financial year ending 31 December 2022

Policy element	Implementation
Annual Base salary from 1 January 2022	• CEO — €1,098,800 • CFO — €642,300
% Increase from prior year	4.5%[1]
Retirement allowance	Allowance of 15% of base salary
Annual bonus	Up to 150% of base salary
Annual bonus metrics	Adjusted EBITA (35%) and Operating Cash Flow (35%) measured on a constant currency basis and strategic deliverables (30%). The strategic element was equally weighted on: increasing global value market share, reducing conversion cost and the use of secondary raw material.
Amount paid for threshold performance	25% of maximum annual bonus
Amount paid for target performance	50% of maximum annual bonus
Actual bonus result for 2022 performance	42% of maximum (€ 695,286 for the CEO and € 406,427 for the CFO).
Payment of bonus in shares	50% of annual bonus in excess of target after tax is used by the executive to acquire shares that are held for a minimum of three years. There is no deferral for 2022 annual bonus.
LTIP Award	• CEO — 200% of salary • CFO — 150% of salary
LTIP metrics	50% of the award: Adjusted EPS (cumulative for the three-year performance period) 25% of the award: Absolute TSR 25% of the award: Reduce CO_2 emissions per tonne
Payment for threshold performance	25%
2020 LTIP vesting	50% of maximum vesting[2]
Performance & post vesting holding periods	3 years and 2 years respectively
Malus and clawback	Malus applies to the period prior to vesting for LTIP awards and payment of the annual bonus Clawback applies to cash bonus and LTIP awards for a period of three years following the date of vesting and three years following any cash payment
Dividends on vested awards	Participants are eligible for dividend equivalents on performance shares awarded under the LTIP
Shareholding requirement	200% of base salary to be met within five years
Shareholding as % of salary at 2022 year-end	• CEO — 56% • CFO — 73%

1. Salary increases are 4.5% rounded down to the nearest 100.
2. The performance period for the TSR element of the award was not complete at the time of writing and so the level of vesting provided is estimated. The actual vesting level will be provided in the 2023 Directors' Remuneration Report.

Directors' Remuneration Policy

The forward-looking Remuneration Policy for Executive Directors and Non-Executive Directors was approved at the AGM held on 10 June 2021 and applies for three years from that date. A summary of the policy, including key remuneration elements, is set out below and is provided for information only. Some of the following sections refer to the implementation of Policy and change from year to year. The full Remuneration Policy as approved by shareholders is available in the 2020 Annual Report on our website under Reports & Presentations. No changes have been made to our policy since its approval.

Policy overview

The aim of the Company's remuneration strategy is to provide a level of fixed pay that, together with incentives, will attract, retain and motivate high-calibre, high-performing executives, aligning them to the long-term performance of the Company and its long-term share performance while rewarding them for creating and delivering shareholder value.

The policy is aligned to and supports our cultural values which are set out below:

- Innovative
- Open
- Pragmatic
- Performing

The mission of the Company is "Taking innovation to 1200°C and beyond". Achieving our mission requires high-performing senior management and the Policy is designed to motivate them to perform to a high standard and reach the stretching goals set. In addition, the remuneration arrangements for the Executive Directors contribute to long-term value creation by:

- providing a fair and appropriate level of fixed remuneration that does not result in overreliance on variable pay and undue risk-taking, thereby encouraging the executives to focus on sustained long-term value creation;
- providing a balance of short- and long-term incentives to ensure there is focus on short-term objectives that will over time build to create long-term value creation as well as long-term goals;
- requiring executives to acquire and retain shares in the Company;
- offering long-term incentives where the reward is delivered in shares which aligns executives to shareholder interests and value as well as the performance of the Company over the longer term;
- requiring performance measures in our long-term incentive to be measured over the longer term and for shares to be held post-vesting for a further two-year period;
- incorporating metrics focused on long-term shareholder value, such as total shareholder return and reduction of both our and our customers' carbon emissions through the increased use of secondary raw material.

When implementing the Remuneration Policy, the Remuneration Committee considered the six factors listed under Provision 40 of the UK Corporate Governance Code:

- Clarity: The Policy and the way it is implemented is clearly disclosed in this policy section of the Remuneration Report and the Annual Statement and supporting reports, with full transparency of all elements of Directors' remuneration.
- Simplicity: The Policy is simple and straightforward, based on a mix of fixed and variable pay. The annual bonus and LTIP include performance conditions which are aligned with key strategic objectives and drivers of the RHI Magnesita business.
- Risk: The Committee believes that the performance targets in place for the incentive schemes provide appropriate rewards for stretching levels of performance without driving behaviour which is inconsistent with the Company's risk profile. Potential reward is aligned with market levels of peer companies and the reputational risk from a perception of "excessive" pay-outs is limited by the maximum award levels set out in the Policy and the Committee's discretion to adjust formulaic remuneration outcomes. To avoid conflicts of interest, Committee members are required to disclose any conflicts or potential conflicts ahead of Committee meetings. No Executive Director or other member of management is present when their own remuneration is under discussion.
- Predictability: The Policy includes full details of the individual limits in place for the incentive schemes as well as "scenario charts" which set out potential pay-outs in the event of different levels of performance, based on a number of reasonable assumptions. Any discretion exercised by the Committee in implementing the Policy will be fully disclosed.
- Proportionality: The link between the delivery of strategy, long-term performance, shareholder return and the remuneration of the Executive Directors is set out in the Remuneration Report.
- Alignment to culture: As explained above and in the rest of this report, the approach to Directors' remuneration is consistent with the Group's culture and values.

When determining the implementation of the Remuneration Policy, the Committee also reviews and considers those matters referred to in section 3.1.2 of the Dutch Corporate Governance Code which comprise: long-term value creation, scenario analyses, ratio of fixed to variable remuneration components, market price of shares, terms and conditions governing share and share option awards.

When reviewing the Remuneration Policy, the Committee will follow the process set out below:

- The Committee will consider market and governance developments (including the UK Corporate Governance Code and Dutch Corporate Governance Code) as well as wider pay context, such as pay ratios and Group reward arrangements.
- The Committee will consider the guidelines of shareholder representative bodies, proxy agencies and investor expectations.
- The Committee will consult with shareholders and employees ahead of any future AGMs where the remuneration policy is put to a vote.
- All changes, adoption or revisions to the existing policy will be brought to shareholders for approval.

Policy table for Executive Directors

Element and purpose	How it operates	Maximum opportunity	Performance related framework and recovery
Base salary To assist in the recruitment and retention of appropriate talent. To provide a fair fixed level of pay commensurate for the role ensuring no over reliance on variable pay.	Salaries are paid monthly and reviewed annually. The Company's policy is to set salaries at market competitive levels taking into account salaries at companies of a similar size by market capitalisation, revenue and any other factors considered relevant by the Committee such as international business mix and complexity. Decisions on salary are influenced by: • The performance and experience of the individual • The performance of the Group • The individual's role and responsibilities and any change in those responsibilities • Pay and employment conditions of the workforce across the Group including salary increases • Rates of inflation and market-wide increases across international locations • The geographic location of the Executive Director	There is no prescribed maximum annual base salary or salary increase.	Salaries will be reviewed by the Committee annually taking into account the various factors noted in the "How it operates" section of the policy.
Retirement allowance To provide competitive retirement benefits for recruitment and retention purposes.	Executive Directors may participate in a defined contribution plan, and/or receive cash in lieu of all or some of such benefit. Only base salary is pensionable. The pension will be set at a rate aligned to the majority of the workforce in the country of the Executive Director's appointment, structured as required by the local regulation in the country of appointment, and in line with industry norms.	Pension is capped at the rate applicable to the majority of employees in the country of appointment for the Executive Director (currently Austria where it is 15% of salary)	None
Other benefits To provide a competitive benefit package for recruitment and retention purposes as well as to support the personal health and well-being of the Executive Director.	Benefits currently provided include private health insurance, life insurance, car/ car allowance and fuel allowance. Additional benefits and tax payable as a result of reimbursement of reasonable business expenses may be provided from time to time if the Committee decides payment of such benefits and tax is appropriate and in line with market practice.	There is no maximum level of benefits provided to an Executive Director.	None

Directors’ Remuneration Policy continued

Policy table for Executive Directors continued

Element and purpose	How it operates	Maximum opportunity	Performance related framework and recovery
Annual bonus To provide focus on the short-term performance of the Company and to provide a reward for achieving short-term personal, strategic and financial Company performance. To provide a mechanism for alignment with longer- term performance and shareholder objectives. The requirement for Executive Directors to acquire shares with their bonus aligns them to the “development of the market price of the shares” in the Company as provided in the Dutch Corporate Governance Code.	The annual bonus is based on the Group’s performance as set and assessed by the Committee on an annual basis. The annual bonus is paid in cash and the Executive Directors are required to acquire shares in the Company with 50% of the amount paid in excess of target (after tax) which will be held for a minimum period of three years.	Up to 150% of base salary. Target potential opportunity is 50% of maximum opportunity.	Details of the performance targets set for the year under review and performance against them will normally be provided each year in the Annual Report on Remuneration. If for reasons of commercial sensitivity, the targets cannot be disclosed then they will be disclosed in the following year. Performance will normally be measured over a one-year period. Targets will be based on the Group’s annual financial and non-financial performance for the particular performance year. At least 70% of the bonus will be subject to financial performance metrics. The Committee may scale back the bonus that is payable if it considers the outcome to be reasonably unacceptable or if it is not representative of the underlying performance of the Company and/or there have been regulatory, environmental or health and safety issues that the Committee considers are of such severity that a scale back of the bonus is appropriate. For the financial targets, not more than 25% of the maximum potential bonus opportunity will be payable for achieving threshold performance rising on a graduated scale to 100% for maximum performance. Threshold performance being the level of performance required for the bonus to start paying. In relation to strategic targets the structure of the target will vary based on the nature of the target set and it will not always be practicable to set targets using a graduated scale. Vesting may therefore take place in full if specific criteria are met in full. Payments under the annual bonus plan may be subject to clawback/malus for a period of three years from payment in the event of a material misstatement of the Company’s financial results, an error in calculating the level of grant or level of vesting or payment, a failure of risk management including the liquidation of the Group, if the participant has been guilty of fraud or gross misconduct or the Company has been brought into disrepute. The clawback/malus provisions as set out above do not limit Article 2:135 of the Dutch Civil Code.

Policy table for Executive Directors continued

Element and purpose	How it operates	Maximum opportunity	Performance related framework and recovery
Awards granted under the RHI Magnesita Long-Term Incentive Plan (LTIP awards). To incentivise and reward execution of the longer-term business strategy. To provide alignment to shareholders and the longer-term performance of the Company and to recognise and reward value creation over the longer term. The "development of the market price of the shares" in the Company is, as required by the Dutch Corporate Governance Code, taken into account by providing a long-term incentive using shares as the delivery mechanism. In addition, part of the award is determined by TSR which is a measure of share price performance.	LTIP awards may take the form of nil-cost options or conditional awards. Awards are normally made annually. Awards normally vest after three years subject to performance and continued service. Where Executive Directors cease employment or are under notice prior to the three-year vesting date, different rules may apply. Shares resulting from the exercise of an option or vesting of a conditional award cannot be sold until five years have elapsed from the date of award, other than to pay tax. To the extent an award vests, the Committee may permit dividend equivalents to be paid either in the form of cash or shares representing the dividends that would have been paid on those shares during the vesting period (and where the award is a nil-cost option to the fifth anniversary of award). Dividend equivalents are payments in cash or shares equal to the value of the dividends that would have been paid during the period referred to above, on the number of shares that vest.	200% of salary (face value of award) annually (normal limit), where the face value is the market value of the shares subject to an award at the time it is awarded. In exceptional circumstances on recruitment 250% of salary (face value of award).	Awards vest based on three-year (or longer) performance measured against a range of challenging targets set and assessed by the Remuneration Committee. The Committee will determine the specific metrics and targets that will apply to each award prior to the date of award subject to the vesting of at least 25% of an award being determined by Total Shareholder Return. The targets for each award will be set out in the Annual Report on Remuneration. In relation to financial targets not more than 25% of the total award will vest for threshold performance rising on a graduated scale to 100% for maximum performance. Threshold performance being the level of performance required for the LTIP award to start to vest. In relation to strategic targets the structure of the target will vary based on the nature of the target set and it will not always be practicable to set targets using a graduated scale and so vesting may take place in full if specific criteria are met in full. The Committee may scale back the level of vesting if it considers the outcome to be reasonably unacceptable or if it is not reflective of the underlying performance of the Company and/or there have been regulatory, environmental or health and safety issues that the Committee considers are of such severity that a scale back of the LTIP award is appropriate. LTIP may be subject to clawback/malus for three years from the date of vesting in the event of a material misstatement of the Company's financial results, an error in calculating the level of grant or level of vesting or payment, a failure of risk management including the liquidation of the Group, if the participant has been guilty of fraud or gross misconduct or the Company has been brought into disrepute. The clawback/malus provisions as set out above do not limit Article 2:135 of the Dutch Civil Code.
Share ownership To increase alignment between management and shareholders and to promote the longer-term performance of the Company.	Requirement for the Executive Directors is to normally retain all of the shares acquired from annual bonus payments following expiry of the three-year holding period and normally 50% of vested Performance Shares (net of tax) following the two-year holding period until the shareholding requirement is achieved. Executive Directors are expected to hold 200% of salary in shares. The Committee normally expects this requirement to be met within five years of appointment and for the CEO 7 June 2018 being the date of approval of the Company's first Directors' Remuneration Policy. Holding periods for annual bonus shares and long-term incentive awards continue post cessation of employment in respect of bonus shares acquired with 2021 bonus and LTIP awards granted in 2021 and future years, thereby providing a post-employment shareholding requirement.	200% of salary	None.

Directors' Remuneration Policy
continued

The table below sets out the Remuneration Policy for the Non-Executive Directors (including the Chairman).

Policy table for Non-Executive Directors

Element and purpose	How it operates	Maximum opportunity	Performance related framework and recovery
To provide fees reflecting the time commitments and responsibilities of each role to enable recruitment of the right calibre of Non-Executive Directors who can further the interests of the Group through their experience, stewardship and contribution to the strategic development of the Group.	The Non-Executive Directors are paid a basic fee. Supplemental fees may be paid for additional responsibilities and activities, including for a Committee Chairman and member of the main Board Committees and the Senior Independent Director. The cash fee is normally paid quarterly in arrears. The Chairman's fee is inclusive of all of his responsibilities. Reasonable expenses incurred by the Non-Executive Directors in carrying out their duties may be reimbursed by the Company including any personal tax payable by the Non-Executive Directors as a result of reimbursement of those expenses. The Company may also pay an allowance in lieu of expenses if it deems this is appropriate. Fees are reviewed periodically.	There is no prescribed maximum annual fee or fee increase. The Board is guided by the general increase in the non-Executive market and the Group's global workforce, but may decide to award a lower or higher fee increase to recognise, for example, an increase in the scale, scope or responsibility of the role and/or take account of relevant market movements.	None.

Performance criteria

The Committee assesses annually at the beginning of the relevant performance period, which performance measures, or combination and weighting of performance measures, are most appropriate for both annual bonus and any LTIP awarded to reflect the Company's strategic initiatives for the performance period. The Committee has the discretion to change the performance measures for awards granted in future years based upon the strategic plans of the Company, as it will do for 2023's award. The Committee sets what it considers are demanding targets for variable pay in the context of the Company's trading environment and strategic objectives and considering the Company's internal financial planning, and market forecasts. Any non-financial goals will be well defined, and the performance against the goals will be independently assured.

The short term financial and non-financial criteria of our variable remuneration may, as noted above, vary from year to year to ensure alignment with the strategic plans of the Company. Set out below is a summary of the measures for 2023 and other measures that have been used since 2018 and may be incorporated again (in addition to other measures) for future incentives:

Annual bonus

Financial criteria

- Adjusted EBIT, EBITA and EBITDA are a reflection of the Company's operating profits, operating performance and business efficiency supporting the value of RHI Magnesita for the shareholders. They reflect the way in which management assesses the underlying performance of the business, excluding certain items from the adjusted figures, to better understand underlying performance.
- Operating cash flow supports the Company's capacity to expand its operations or investment in additional assets/ acquisitions, as well as dividends paid to shareholders. It is calculated by taking adjusted EBITDA plus changes in working capital and in other assets/liabilities minus capex spend.
- Inventory coverage which covers Finished Goods and Raw Material.
  - Finished Goods Coverage Ratio: is a supply chain metric that shows the period expressed in months during which a company can meet customer demand with the available inventory. To calculate, we divide the amount of stock by the average demand of a specific period in the future.
  - Raw Material Coverage Ratio: is a supply chain metric that shows the period expressed in months during which a company can meet production demands for raw materials with the available inventory. To calculate, we divide the amount of stock by the average consumption for a specific period in the past. The coverage ranges lead to more sustainable inventory management and customer service levels.

Non-financial criteria

Strategic Deliverables supporting financial targets such as adjusted EBIT or EBITA and operating cash flow with initiatives and strategic projects, such as enhancing the current business model or company's footprint and global value market share and ESG measures such as CO_2 emissions intensity reduction and PIFOT (a measure where to check the delivery against customer promise and internal process adherence. It measures two dimensions in one metric i.e. shipping as per our ex-work date on-time and in full and execution of the customer order fulfilment process as per the process against a customer sales order line. It is calculated as (Number of sales order lines with deliveries issued in full or before confirmed customer EXW date) ÷ (Total sales order lines), as well as the use of Secondary Raw Materials and reducing conversion costs.

LTIP

Financial criteria

- TSR — combination of movements in share price and dividends earned on shares reflecting the total return earned by holding the Company's shares.
- Adjusted EPS — reflects the income statement in a clear way and takes the equity structure into account, the Board believes adjusted EPS to be one of the indicators which demonstrates the value created for its shareholders.
- Economic Profit Growth — measures value creation, considering all economic resources employed within the business, taking into account the costs of making and selling a product/service.

Bonus & LTIP

Non-financial criteria

- Use of Secondary Raw Materials — measures the rate at which secondary raw material is used in our production network compared to virgin raw materials. Despite this not being a wholly financial target, this will nonetheless be independently verified by an external provider.
- Reduction of CO_2 emissions intensity — reduce the tonnes of CO_2 emitted per tonne of production with incentive targets taking into account our longer term ambitions.

The criteria listed above directly link to the Company's strategy, long-term interests and sustainability. Performance targets are set at a level to maintain good financial health. This enables the Company to perform well, deliver shareholder returns and invest sustainably to achieve strategic deliverables. The assessment of the fulfilment of performance criteria for the annual bonus and for LTIP awards is set out on **pages 150 and 151**.

Discretions retained by the Committee

The Committee operates the Group's variable pay plans according to their respective rules. In administering these plans, the Committee may apply certain operational discretions.

These include the following:

- determining the extent of vesting based on the assessment of performance.
- determining the status of leavers and, where relevant, the extent of vesting.
- determining the extent of vesting of LTIP awards under share-based plans in the event of a change of control.
- making appropriate adjustments required in certain circumstances (e.g., rights issues, corporate restructuring events, variation of capital and special dividends).
- adjusting existing targets if events occur that cause the Committee to determine that the targets set are no longer appropriate and that amendment is required so the relevant award can achieve its original intended purpose, provided that the new targets are not materially less difficult to satisfy.

The Committee also retains discretion to make non-significant changes to the Policy without reverting to shareholders (for example, for regulatory, tax, legislative or administrative purposes).

Malus & Clawback

The Committee may, at any time within three years from the date of LTIP awards vesting or payments under the annual bonus plan, determine that malus or clawback provisions may apply. Malus enables the Committee to reduce bonus or share awards (including to nil) before they vest. Clawback enables the Committee to reclaim shares acquired from share awards and/ or bonuses paid including the cash value of shares and dividends. The Committee can also operate clawback through the reduction including to nil of other awards held by the individual before they vest or bonus before it is paid. The provisions apply in the following circumstances: (i) material misstatement of the Company's financial results; (ii) an error in calculating the level of grant or level of vesting or payment; (iii) a failure of risk management including the liquidation of the Group; (iv) if the participant has been guilty of fraud or gross misconduct, or the Company has been brought into disrepute. The clawback/malus provisions as set out above do not limit Article 2:135 of the Dutch Civil Code.

Executive Directors' service contracts and payments for loss of office

Service contracts and letters of appointment are available for inspection at the Company's registered office.

Directors' Remuneration Policy
continued

Service contracts and loss of office

It is the Company's policy that notice periods for Executive Directors will not exceed 12 months and the service contracts for the Executive Directors are terminable by either the Company or the Executive Director on 12 months' notice.

Service contracts and loss of office

Name	Position	Date of Appointment	Notice Period
Stefan Borgas	CEO	20 June 2017	12 months
Ian Botha	CFO	1 April 2019	12 months

The Committee's policy in relation to termination of service contracts is to deal with each case on its merits having regard to the circumstances of the individual, the termination of employment, any legal advice received and what is in the best interests of the Company and its shareholders. An Executive Director's service contract may be terminated early (other than for cause) by payment in lieu of salary in equal monthly instalments over the notice period. The Company may include pension contributions and benefits within the payment in lieu of notice if this is deemed appropriate or is specifically provided for in the service contract. Unless a contract specifically provides otherwise, all payments would discontinue or reduce to the extent that alternative employment is obtained. There are no enhanced provisions on a change of control and there are no specific severance arrangements. Whilst not part of the formal policy, in the event of a change of control, LTIP awards will vest based on performance to the change of control. In addition, awards will normally be scaled back pro rata to the proportion of the performance or vesting period served, with the Remuneration Committee having the discretion to reduce the scale back in exceptional circumstances if it deems it to be appropriate.

An Executive Director's service contract may be terminated without notice for certain events such as gross misconduct in which case no payments or compensation beyond sums accrued to the date of termination will be paid.

The Company may also pay out placement costs, legal costs and other reasonable relevant costs associated with termination and may settle any claim or potential claim relating to the termination.

Treatment of variable pay awards on termination

Annual bonuses and LTIP awards are non-contractual and are dealt with in accordance with the rules of the relevant plans.

At the discretion of the Committee, in certain circumstances, for example, to incentivise short-term retention and completion of key business deliverables, and where poor performance is not relevant to the cessation, a pro-rata bonus may become payable at the normal payment date for the period of employment with financial performance targets based on full-year performance. Where the Committee decides to make a payment, the rationale will be fully disclosed in the Annual Report on Remuneration.

The default treatment for share-based awards is that any unvested award will lapse on termination of employment or, in certain circumstances on the executive giving notice. However, under the rules of the LTIP under which awards will be made, in certain prescribed circumstances, such as death, injury, ill-health, retirement with the Company's agreement, redundancy, leaving the Group because the employer company or business leaves the Group or where the Committee determines otherwise, awards are eligible to vest subject to the performance conditions being met over the normal performance period (or a shorter period where the participant has died) and with the award being reduced (unless the Committee considers, in exceptional circumstances, a different treatment is appropriate) by an amount to reflect the proportion of the performance period not actually served.

Approach to recruitment and promotions

The recruitment package for a new Director will be set in accordance with the terms of our Policy. On recruitment, the salary may be set below the normal market rate, with phased increases as the Director demonstrates performance within the Company. Annual bonus opportunity will reflect the period of service for the year.

The normal annual LTIP award limit is 200% of salary face value in a financial year (face value being the market value of the shares subject to an award at the time it is awarded). A higher limit of 250% of salary (face value) is included for use in exceptional circumstances for the Company to be able to attract and secure the right candidate if required. A LTIP award may be made shortly after an appointment if the usual annual award date has passed.

With internal appointments, any variable pay element awarded in respect of the candidate's prior role will normally be allowed to continue according to its terms.

The Policy enables the Committee to include those benefits it deems appropriate for an Executive Director. On recruitment, this may include benefits such as relocation, housing or schooling expenses. In arriving at a benefits package, the Committee's prevailing consideration will be to pay only what is considered necessary and appropriate, taking into account the importance of securing the right candidate for the job, acting in the best interests of the Company's stakeholders and limiting certain benefits to a specified period where possible.

On recruitment, the Company may compensate for incentive pay (or benefit arrangements) foregone from a previous employer. Replacement share awards would be made under the Company's LTIP and any subsequently adopted share plans using the separate specific limit for these purposes of 250% of salary (face value) or as necessary and as permitted under the Listing Rules. The new awards would take account of the structure of awards being forfeited (cash or shares), quantum foregone, the extent to which performance conditions apply, the likelihood of meeting any existing performance conditions and the time left to vesting.

Policy for Executive Directors on external appointments

Subject to Board approval, Executive Directors may accept external non-executive positions and retain the fees payable for such appointments.

Non-Executive Directors

Letters of appointment and policy on recruitment

All Non-Executive Directors have letters of appointment for a fixed period of three years, subject to reappointment each year at the AGM. No additional compensation is payable on termination, with fees being payable to the date of termination. The appointments are terminable by either party on three months' written notice.

On appointment of a new Non-Executive Director, the fee arrangement will be set in accordance with the approved remuneration policy in force at that time.

Name	Position	Date of initial appointment	Expiry date of current term
Herbert Cordt	Non-Independent Non-Executive Director, Chairman	20 June 2017	AGM 2024
David Schlaff	Non-Independent Non-Executive Director	6 October 2017	AGM 2024
Stanislaus Prinz zu Sayn-Wittgenstein -Berleburg	Non-Independent Non-Executive Director	6 October 2017	AGM 2024
John Ramsay	Independent Non-Executive Director	6 October 2017	AGM 2024
Janet Ashdown	Independent Non-Executive Director	6 June 2019	AGM 2022
Sigalia Heifetz	Independent Non-Executive Director	10 June 2021	AGM 2024
Marie-Hélène Ametsreiter	Independent Non-Executive Director	10 June 2021	AGM 2024
Jann Brown	Independent Non-Executive Director	10 June 2021	AGM 2024
Wolfgang Ruttenstorfer	Independent Non-Executive Director	20 June 2017	AGM 2024
Karl Sevelda	Independent Non-Executive Director	6 October 2017	AGM 2024
Michael Schwarz	Employee Representative Director	8 December 2017	9 December 2025[1]
Karin Garcia	Employee Representative Director	9 December 2021	9 December 2025[1]
Martin Kowatsch	Employee Representative Director	14 December 2021	14 December 2025[1]

1. Michael Schwarz, Karin Garcia and Martin Kowatsch are the Employee Representative Directors and have been selected in accordance with the applicable local law provisions by the employee representatives. They are appointed for a term of not more than four years.

How the views of shareholders and employees are taken into account

Owing to the Board members' wide range of experience and backgrounds, and with Employee Representatives members and shareholders represented in person, there is ample opportunity for stakeholder feedback on the Policy and its implementation on an ongoing basis.

The Committee formally consults directly with employees on executive pay via the Employee Representative Directors appointed to the Board. Other engagement activities include CEO calls, regular townhall meetings and an active CEO Channel, as part of the MyRHIMagnesita App, where employees can ask questions on any issues including executive pay. The Committee receives periodic updates from the CEO and the Executive VP People, Projects and Value Chain which include employee feedback received on remuneration practices across the Group. No substantive questions have been raised on executive remuneration. The Committee takes due account of the overall approach to remuneration and the remuneration structures for employees in the Group when setting pay for the Executive Directors.

There are representatives of two of the Company's major shareholders on the Board and thus regular consultation on all elements of remuneration is ongoing. The Committee Chairman meets directly with representatives of various institutional shareholders on remuneration and appreciates the opportunity to understand their questions, seek to understand their expectations and then provide those views to the Committee and to the wider Board as required. During November and December 2022, the Committee Chairman participated in an investor roadshow with the Deputy Chairman where ESG matters, and particularly the links with the sustainability agenda, human capital management and remuneration matters were discussed with four institutional shareholders. The Committee, and the wider Board, found the sessions very useful to hear direct feedback from investors and understand their expectations for the future in terms of driving management performance through incentives.

The Committee Chairman seeks feedback from shareholders on any substantive remuneration matters and any consultation exercise would typically cover over 70% of shareholders. This feedback, best practice in the market, and any views also received from time to time, as well as guidance from shareholder representative bodies more generally, will be considered as part of the Company's annual review of remuneration policy and implementation of that policy. The Committee will engage with shareholders regarding the Policy renewal in advance of the 2024 AGM.

How the views of shareholders and employees are taken into account

In addition to this, the website provides an important tool for investor engagement. It contains a wide range of information on our Company and has a section dedicated to investors, which includes certain remuneration information, such as our LTIP rules, our investor calendar, financial results, presentations, press releases, with news relating to RHI Magnesita financial and operational performance and contact details.

Remuneration market data for companies of a comparable size and complexity to the Company was considered as part of the Committee's formulation of our current Policy. This remuneration data was only one of many factors considered by the Committee.

The Committee has taken note of the views of the Executive Directors with regard to the amount and structure of their remuneration and the provisions of 3.1.2 of the Dutch Corporate Governance Code (matters that should be taken into consideration when formulating the Remuneration Policy) have been brought to their attention.

You can read more on our stakeholder engagement on **page 98 to 101**.

How the Executive Directors' Remuneration Policy relates to the wider Group

The Policy described above applies specifically to the Company's Executive and Non-Executive Directors. The Committee is aware of and provides feedback on the wider Group remuneration structures.

Our remuneration package elements for our Executive Directors are with some minor differences, the same as for the next level of management, our senior leaders.

Base salaries for the whole Group are operated under broadly the same policy as for the Executive Directors and are reviewed annually.

On the annual bonus since 2019, the bonus targets are the same for Executive Directors and for all eligible white-collar employees. All our employees take part in annual discretionary bonus schemes, which is based on the same metrics as those applicable to the Executive Directors as shown in Annual Report on Remuneration. Our approach is to incentivise our employees to focus on and contribute to the Company's key goals.

LTIP awards are awarded to those employees identified as having the greatest potential to influence strategic outcomes. Given the cost of operating such a plan, the Committee considers this is the right approach and in the best interests of the Company and its shareholders.

A comparison of the remuneration structure between the wider workforce and the Board is illustrated in the table below.

Competitive pay and cascade of incentives

Organisational level	Number of employees	Maximum bonus as percentage of salary	Maximum proportion of bonus payable in cash (% of maximum award)	Maximum proportion of bonus deferred in shares (% of maximum award)	Maximum LTIP award based on annual salary
Executive Directors	2	150%	75%1	25%[1]	150-200%
Executive Management Team	5	80-140%	85%2	15%[2]	80-150%
Senior Leaders	c30	40%	100%	0%	20-50%
Functional Directors	c90	30%	100%	0%	0%
Senior Managers	c150	25%	100%	0%	0%
Managers	c500	20%	100%	0%	0%
Specialists	c1,700	10%	100%	0%	0%
Professionals	c2,000	5%	100%	0%	0%
Other bonused employees	c8,900	various[3]	100%	0%	0%

1. Half of annual bonus in excess of target, after tax, is used by the Executive Directors to acquire shares that must be held for a minimum of three years.
2. EMT members are required to acquire shares in the Company with 30% of the amount above target (after tax) which must be held for a minimum of three years.
3. Various local bonus programmes are in place for the operational, administrative and blue-collar employees of the Company.

Summary of remuneration structure for employees below the Board

Element	Policy features for the wider workforce	Comparison with Executive Director remuneration
Salary Read more on **Page 137**	RHIM salary is the basis for a competitive total reward package for all employees, and we conduct an annual salary review for all employees. As we determine salaries in this review, we take account of comparable pay rates from market references, skills, knowledge and experience of everyone, individual performance, and the overall budget we set for each country. In setting the budget each year, we forecast inflation, unions and collective agreements and business context related to such things as growth plans, workforce turnover and affordability.	We review the salaries of our Executive Directors and executive team annually. The primary purpose of the review is to stay aligned with relevant market comparators and stay competitive, as well as to ensure any increases are aligned with the wider workforce in Europe and North America, except in exceptional circumstances.
Pensions and benefits Read more on **Page 137**	We offer market-aligned benefits packages reflecting normal practice in each of our countries we operate like pension, worldwide accidental insurance (leisure/work), health insurance, meal allowance/voucher.	We have differences in the Executive Directors' benefits to reflect market practice and role differentiation. Our incumbent Executive Directors' pension allowance (and that for new appointments) is aligned to that of the workforce in their country of appointment.
Annual bonus and LTIP Read more on **Pages 138 and 139**	Our white collar global workforce participate in an annual cash bonus plan. The plan is based on our Company KPIs. This structure places equal emphasis on the importance of an employee's personal contribution to the success of RHIM. We also operate different bonus plans for those employees of our business where remuneration models in the market are markedly different, such as Sales and production areas.	Annual bonus for Executive Directors is directly related to the same performance measures and outcomes as the wider workforce. LTIP are provided to our senior executives and senior roles who have influence on the overall performance of the Company.

Pay ratios

The Dutch Corporate Governance Code recommended from the financial year 2018, and the UK Directors' Reporting Regulations required from 2019, that the Committee report pay ratios including changes from the prior year as part of its determination of executive pay and wider executive remuneration decisions. The total employee remuneration figure used for the ratio below is for all employees in all Group companies and includes countries with significantly lower levels of pay than Europe and the United States. RHI Magnesita only has around 150 employees in the UK and falls below the required threshold for UK pay ratio reporting requirements. As UK employees represent less than 1% of RHI Magnesita's employees, the Committee considers that the above approach is appropriate in the circumstances.

RHI Magnesita is positioned around the upper quartile CEO pay ratio of other basic materials and industrial companies of a similar size listed on the FTSE.

A significant proportion of the Executive Directors' remuneration is delivered through incentives, annual bonus and LTIP, where awards are linked to company performance and share price movement over the longer term. This means that the pay ratio will depend on the incentive outcome.

The table below shows the pay ratio in respect of each year from 2018 to 2022:

Pay ratio	2022[1]	2021[2]	2020[3]	2019	2018
CEO	64:1	21:1	41:1	34:1	49:1
CFO	45:1	13:1	25:1	16:1[4]	N/A

1. The CEO and CFO pay ratio increased in 2022. This is predominantly due to the vesting of the 2020 LTIP and a higher bonus outturn in 2022. Executive Directors receive higher levels of variable pay opportunity than other employees to reflect their roles in the business.
2. Pay ratio is lower due to not achieving target bonus KPIs.
3. The pay ratio rose due to the increase in base salary for the CEO and CFO in 2020.
4. CFO pay ratio is lower as Ian Botha joined the Company on 1 April 2019, with the full salary and bonus, the ratio would be 21:1.

The proportion of fixed and variable remuneration

To support the Policy's objectives to deliver long-term sustainable success of the Company, the remuneration package of our Executive Directors includes a mix of fixed and variable remuneration. The proportion for 2023 is approximately 40% for fixed pay and 60% variable remuneration on a target basis (calculated on the same basis as the target scenario shown below). Variable pay is split between the annual bonus, with 50% of payment over target being held in shares, and long-term incentive.

Directors' Remuneration Policy
continued

Remuneration scenarios for Executive Directors

The Policy provides that a significant proportion of remuneration is determined by Group performance. The graph below illustrates how the total pay opportunities vary under four different performance scenarios: minimum, target, maximum and maximum assuming a share price appreciation of 50% for the LTIP award during the performance period.

Assumptions

Minimum: Fixed pay only (base salary, pension and benefits, excluding relocation benefits).

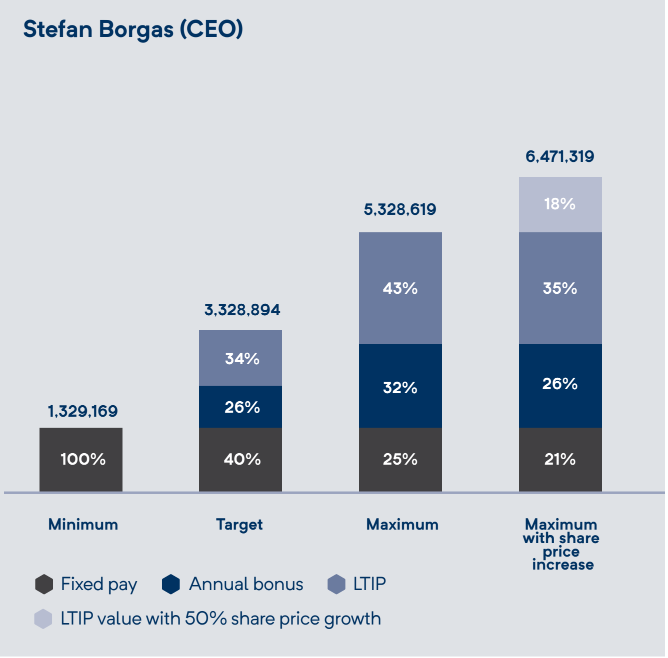
Target: Fixed pay plus 50% of 2023 maximum annual bonus opportunity for the CEO and CFO with 50% vesting of the 2023 LTIP award.

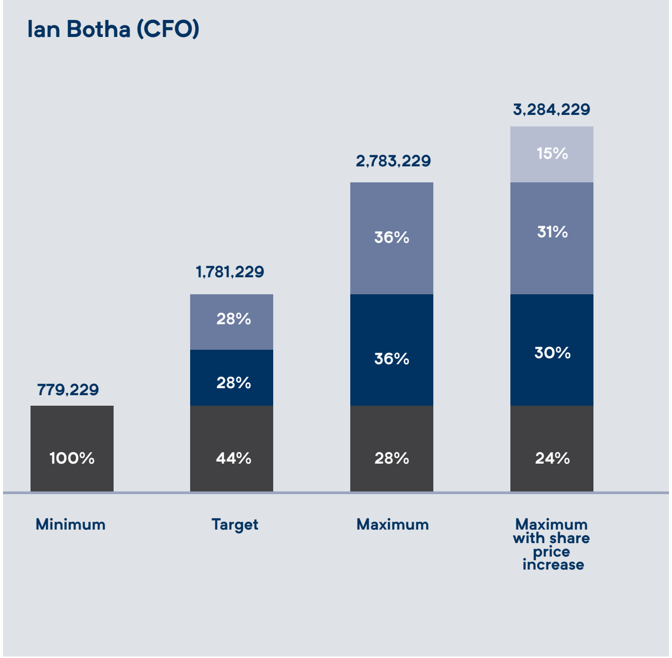
Maximum: Fixed pay plus maximum annual bonus opportunity and 100% vesting of 2023 LTIP award.

Maximum with share price increase: Fixed pay plus maximum annual bonus opportunity and 100% vesting of 2023 LTIP award with an assumed share price appreciation of 50% for the LTIP award during the performance period.

As required under the Dutch Corporate Governance Code, scenario analysis was carried out as part of the formulation of the Policy and to establish that the policy results in appropriate and fair levels of remuneration, including that the level and ratio of fixed to variable pay does not encourage inappropriate risk-taking or overreliance on variable pay while ensuring there is sufficient alignment to investors, the long-term performance of the Company and development of the market value of the shares of the Company.

All values below are in euros





Annual Report on Remuneration

Annual Report on Remuneration

The following section provides details of how the Company's Directors were paid during the financial year to 31 December 2022.

As a Dutch incorporated and registered and UK and Austrian listed company RHI Magnesita is required to comply with UK, Dutch and Austrian reporting requirements, including the UK, Austrian and Dutch Corporate Governance Codes.

The Committee together with the Board has determined to provide certain voluntary disclosures recognising the importance of transparency of reporting and investor expectation as a UK listed company to comply with the UK Directors' Remuneration Reporting Regulations. This Annual Report is compiled on this basis.

The Remuneration Committee members, activities and meetings during the year are set out on **page 132**, along with the Committee's purpose, roles and responsibilities and is thereby included in this part of the report by reference.

Advisers

Korn Ferry ("KF"), signatories to the UK Remuneration Consultants Group's Code of Conduct ("Code of Conduct"), was appointed by the Committee in 2017 having submitted a proposal which demonstrated their skills and experience in executive remuneration. KF's appointment is subject to annual review by the Committee. KF provides advice to the Committee on matters relating to UK governance, including consulting on the remuneration report and analysing market trends.

The Committee was satisfied that the advice provided by Korn Ferry was objective and independent having noted their commitment to the Code of Conduct. Korn Ferry's fees for advice to the Committee in 2022 were £51,118. Korn Ferry's fees were charged on the basis of the time spent advising the Committee. Korn Ferry provided other human capital related services during the year to a separate part of the business, but these services were carried out by a team wholly separate to the remuneration advisory team. The Committee is comfortable that the controls in place at Korn Ferry do not result in the potential for any conflicts of interest to arise.

Statement of voting at AGM

Votes on the business pertaining to remuneration, were cast as follows:

Resolutions	Votes for	% of votes cast	Votes against	% of votes cast	Total votes validly cast	Total votes cast as a % of the relevant shares in issue	Number of votes withheld
25 May 2022 AGM Advisory vote on the 2021 Directors' Remuneration Report (excluding the Directors' Remuneration Policy)	35,808,248	99.31	248,942	0.69	36,061,102	76.73	3,912
10 June 2021 AGM Binding vote on Directors' Remuneration Policy which takes effect from 1 January 2021	37,487,854	95.95	1,582,904	4.05	39,070,758	81.53	0

For 2022 AGM, the total voting rights of the Company on the day on which shareholders had to be on the register in order to be eligible to vote was 46,999,019 and for the 2021 AGM 47,924,771. A "Vote withheld" is not a vote in law and is not counted in the calculation of the % of shares voted "For" or "Against" a resolution.

Annual Report on Remuneration
continued

Single total figure table (audited)

The following table shows a single total figure of remuneration in respect of qualifying services for the 2022 financial year for each Executive and Non-Executive Director of the Company, together with comparative figures for 2021.

	Salary		Taxable benefits[2]		Bonus		LTIP	
Director[1]	2022	2021	2022	2021	2022	2021	2022[4]	2021
Executive Directors								
Stefan Borgas	€1,098,800	€1,052,000	€15,064	€183	€695,286	€374,775	€1,041,043	—
Ian Botha	€642,300	€615,000	€11,029	€12,003	€406,427	€219,094	€456,583	—
Non-Executive Directors								
Herbert Cordt	£251,700	£241,000	—	—	—	—	—	
John Ramsay	£128,200	£122,900	—	—	—	—	—	
Janet Ashdown	£114,000	£104,522	—	—	—	—	—	
David Schlaff	£74,200	£71,100	—	—	—	—	—	
Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg	£74,698	£71,100		—	—	—	—	
Fiona Paulus	£70,395	£84,728	—	—	—	—	—	
Jann Brown	£83,456	£52,566	—	—	—	—	—	—
Karl Sevelda	£88,611	£82,314		—	—	—	—	
Marie-Hélène Ametsreiter	£84,400	£48,017	—	—	—	—	—	
Sigalia Heifetz	£79,800	£48,017	—	—	—	—	—	
Wolfgang Ruttenstorfer	£82,700	£79,300	—	—	—	—		
Michael Schwarz[6]	—	—	—	—	—	—	—	
Karin Garcia[6]	—	—	—	—	—	—	—	
Martin Kowatsch[6]	—	—	—	—	—	—	—	

1. All amounts are disclosed in the currencies in which the relevant elements of pay are set. Actual payment may be made in the currency where the recipient resides using the exchange rate at the time of payment.
2. Benefits in 2022 comprise for Stefan Borgas benefits of tax advice, private health insurance and car benefits. The benefits for Ian Botha included a car benefit and insured benefits
3. Pension figures represent the 15% of salary cash allowance received by Executive Directors.
4. Value of shares based on a three-month average share price of £20.09 to 31 December 2022 and an exchange rate of 0.88512. Grant share price was £19.976 and vesting share price is estimated to be £20.09 (using three-month average share price to 31 December 2022). The increase in share price between grant and vesting is £0.11. As a result, the value attributable to share price appreciation based is £5,153 (€ 5,821) for Stefan Borgas and £2,260 (€ 2,553) for Ian Botha. The number of shares delivered as dividend equivalents is 668 for Stefan Borgas and 293 for Ian Botha. Further details are set out on **page 150**.
5. Value of shares based on a three-month average share price of £20.09 to 31 December 2022 and an exchange rate of 0.88512. Grant share price was £19.976 and vesting share price is estimated to be £20.09 (using three-month average share price to 31 December 2022). The increase in share price between grant and vesting is £0.11. As a result, the value attributable to share price appreciation is £5,153 (€ 5,821) for Stefan Borgas and £2,260 (€ 2,553) for Ian Botha. The number of shares delivered as dividend equivalents is 668 for Stefan Borgas and 293 for Ian Botha. Further details are set out on **page 150**.
6. Employee Representative Directors do not receive additional remuneration for this role as they are remunerated as employees of the Group.

No loans, advances or guarantees have been provided to any Director.

Pension[3]		Other		Total remuneration		Total fixed remuneration		Total variable remuneration	
2022	2021	2022[5]	2021	2022	2021	2022	2021	2022	2021
€164,820	€157.80	—	—	€3,015,013	€1,584,758	€1,278,684	€1,209,983	€1,736,329	€374,775
€96,345	€92.25	€489,687	—	€2,102,371	€938.35	€749,674	€719,253	€1,352,697	€219,094
				£251,700	£241,000	£251,700	£241,000		
				£128,200	£122,900	£128,200	£122,900		
				£114,000	£104,522	£114,000	£104,522		
				£74,200	£71,100	£74,200	£71,100		
				£74,698	£71,100	£74,698	£71,100		
				£70,395	£84,728	£70,395	£84,728		
				£83,456	£52,566	£83,456	£52,566		
				£88,611	£82,314	£88,611	£82,314		
				£84,400	£48,017	£84,400	£48,017		
				£79,800	£48,017	£79,800	£48,017		
				£82,700	£79,300	£82,700	£79,300		
				—	—	—	—		
				—	—	—	—		
				—	—	—	—		

Annual Report on Remuneration
continued

2022 Annual bonus performance against targets (audited)

The targets set for the annual bonus and performance against them are set out below.

Measure	Weighting	Threshold (25% of maximum)	Target (50% of maximum)	Max (100% of maximum)	Actual performance	Pay-out (% of max)[2]	Pay-out (% of salary)	Pay-out CEO	Pay-out CFO
Adjusted EBITA €m	35%	367	410	451	384	35%	18%	€200,826	€117,392
Operating Cash Flow €m[1]	35%	213	243	273	155	0%	0%	€0	€0
Increase global value market share	10%	14.40%	14.70%	14.90%	16.3%	100%	15%	€164,820	€96,345
Reduce conversion cost	10%	-11.30%	-11.80%	-12.30%	-13.6%	100%	15%	€164,820	€96,345
Use of secondary raw material	10%	7.10%	7.50%	7.70%	10.5%	100%	15%	€164,820	€96,345
Total	**100%**					**42%**	**63%**	**€692,286**	**€406,427**

1. Operating cash flow at constant currency. EBITA without restructuring expenses + capex + change in working capital + cash tax.
2. The maximum CEO and CFO annual bonus in 2022 was 150% of salary.

Executive Directors are required to acquire shares in the Company with 50% of the amount paid in excess of target (after tax) which will be held for a minimum period of three years. As the target bonus as a percentage of salary was not achieved (75%), the bonus is payable wholly in cash.

2019 Conditional Award (audited)

Ian Botha was appointed as CFO on 1 April 2019 and as set out in the 2019 Remuneration Report, he received a Conditional Share award to compensate for deferred bonus share awards forfeited on joining RHI Magnesita. This award vested on the third anniversary of grant as detailed below.

Grant date	Vest date	Number of shares granted and vesting	Dividends at vesting	Value on vesting
26 November 2019	26 November 2022	16,592	2084	€489,687

1. The value shown is based on a share price of £22.50 and an exchange rate of 0.85812.

LTIP awards vesting

LTIP awards where vesting is based on performance periods ending (or substantially ending) during the financial year ending 31 December 2022 (audited)

Performance against targets and vesting of the LTIP awards granted on 8 April 2020 which are due to vest in 2023 is set out below.

Performance measure	Weighting	Threshold[1] (25% vesting)	Intermediate[1] (75% of vesting)	Maximum[1] (100% vesting)	Performance period[2]	Performance[2]	Vesting % of that element
Absolute TSR							
	50%	30% cumulative TSR growth over the 3 years	50% cumulative TSR growth over the 3 years	70% cumulative TSR growth over the 3 years	8 April 2020 to 7 April 2023	Estimated 10.46%	0%
Cumulative Underlying Earnings Per Share	50%	€6.50/share	€8.00/share	€9.50/share	1 January 2020 to 31 December 2022	€12.62/share	100%

1. Awards vest on a straight-line basis between threshold, intermediate and maximum.
2. The targets for the Cumulative Underlying Earnings Per Share element were assessed against performance to 31 December 2022. For the TSR element, performance is assessed for a period of three years to the 7 April 2023, three years from the date of grant. Based on the Company's TSR performance to 16 January 2023, it is estimated that none of the TSR element will vest. The actual TSR and vesting level will be provided in the 2023 Directors' Remuneration Report.

The details of the LTIPs vesting in 2023 as a result of performance noted above are shown below (audited)

Executive	Grant date	Vest date	Number of shares granted	Number of shares to vest	Estimated number of dividend equivalents	Total estimated value
Stefan Borgas	8 April 2020	8 April 2023	90,396	45,198	668	€ 1,041,043
Ian Botha	8 April 2020	8 April 2023	39,647	19,823	293	€ 456,583

Value of shares based on a three-month average share price of £20.09 to 31 December 2022 and an exchange rate of 0.88512 (based on the exchange rate on 31 December 2022).

LTIP awards awarded during the financial year ending 31 December 2022 (audited)

During the year, the CEO and CFO received LTIP awards as set out below.

Director	Scheme	Basis of award	Date of award	Percentage of salary award	Share price used[1]	Face value €000	Percentage vesting at threshold performance	Number of shares	End of performance period
Stefan Borgas	LTIP	Annual award[2]	8 March 2022	200%	€31.228	2,197.6	25%	70,372	8 March 2025
Ian Botha	LTIP	Annual award[2]	8 March 2022	150%	€31.228	963.6	25%	30,852	8 March 2025

1. The face value of the awards was calculated using the average closing price for the five trading days prior to the award being granted being £25.90 converted to € (using average FX rate over the same five-day period of £0.8295 to €1 = € 31.22).
2. Awards are structured as nil cost options. In line with the remuneration policy, a two-year holding period post vesting holding period applies after the date of vesting.

In line with the remuneration policy, a two-year holding period post vesting holding period applies after the date of vesting.

Performance measure	Weighting	Threshold (25% vesting)[1]	Intermediate (75% of vesting)[1]	Maximum (100% vesting)[1]	Performance period[2]
Absolute TSR	25%	15%	22%	27% and above	8 March 2022 to 7 March 2025
Adjusted EPS (cumulative for the three-year performance period)	50%	€14.25	€16.50	€19.25	1 January 2022 to 31 December 2024
Reduce CO_2 emissions against 2018	25%	-11.5%	-12.5%	-13.0%	

1. Awards vest on a straight-line basis between threshold intermediate and maximum.
2. For the TSR element, measured from date of grant to third anniversary on 8 March 2025 with a two-month average TSR before each date and for the EPS element and CO_2 reduction element, three financial years until 31 December 2024.

Performance targets for 2021 LTIP awards.

Performance measure	Weighting	Threshold (25% vesting)[1]	Intermediate (75% of vesting)[1]	Maximum (100% vesting)[1]	Performance period[2]
Absolute TSR	25%	13%	20%	25% and above	15 March 2021 to 14 March 2024
Adjusted EPS (cumulative for the three-year performance period)	50%	€12.00	€14.50	€16.89	1 January 2021 to 31 December 2023
Use of Secondary Raw Material[3]	25%	6.5%	7.5%	8.0%	

1. Awards vest on a straight-line basis between threshold intermediate and maximum.
2. For the TSR element, measured from date of grant to third anniversary on 15 March 2024 with a two-month average TSR before each date and for the EPS element and Secondary Raw Material element, three financial years until 31 December 2023.
3. Use of secondary raw material as a percentage of total raw materials used, evaluated at the end of 2023 based on the current production network (and excluding any changes in raw material usage due to any future M&A activity).

Statement of Directors' shareholding and share interests (audited)

Under the share ownership requirements set out in the Directors' Remuneration Policy, the Executive Directors are normally required to build and maintain over five years a shareholding equivalent to at least 200% of salary.

At the 2022 year-end, the Executive Directors each held shares in the Company as detailed below. Shares are valued using the Company's closing market share price on 30 December 2022 of £22.24.

The table below shows how each Director complies with the shareholding guidelines on 31 December 2022:

	Shares held at 31 December 2022	Shares held by connected persons	Shares held at 31 December 2021	Number of shares	Number of options	Unvested and subject to a service requirement only	Unvested and subject to performance conditions	Vested but unexercised	Exercised during the year	Shareholding requirement	Current shareholding % Salary[1]	Requirement met?
Executive Directors												
Stefan Borgas	24,350[2]	1,150	21,300[2]	24,350	204,347		204,347			200% salary	56%	No
Ian Botha	18,676	—	—	—	89,606		108,282			200% salary	73%	No
Non-Executive Directors												
Herbert Cordt	350,000	—	350,000			—	—			—	—	—
John Ramsay	4890	—	2,130			—	—			—	—	—
Janet Ashdown	—	—	—			—	—			—	—	—
David Schlaff[4]	—	—	—			—	—			—	—	—
Stanislaus Prinz zu Sayn-Wittgenstein -Berleburg[4]	1,071,722	—	1,071,722			—	—			—	—	—
Jann Brown												
Karl Sevelda	2,000	—	2,000			—	—			—	—	—
Marie-Hélène Ametsreiter												
Sigalia Heifetz												
Wolfgang Ruttenstorfer	—	—	—			—	—			—	—	—
Karin Garcia	—	—	—			—	—			—	—	—
Martin Kowatsch	1,223	—	1,223			—	—			—	—	—
Michael Schwarz	—	—	—			—	—			—	—	—
Fiona Paulus[5]	—	—	—			—	—			—	—	—

1. Shareholding determined using an FX rate of 0.88512 for GBP to EUR on 31 December 2022. This is then used to assess the whether the shareholding requirement has been met.
2. Includes shareholdings of connected persons.
3. According to the latest disclosures by the shareholder: 13,333,340 held directly by MSP Stiftung. MSP Stiftung is a foundation under Liechtenstein law, whose founder is Mag. Martin Schlaff.
4. On 6 November 2022, Ms. Sayn-Wittgenstein acquired 1,071,722 shares in the Company from Mr. W. Winterstein (held in part directly and in part indirectly through FEWI Beteiligungsgesellschaft mbH) with whom she shares a family relationship. The acquisition of 1,071,722 shares by Ms. Sayn-Wittgenstein has been disclosed in the AFM's register on manager's transactions under article 19 of Regulation (EU) No. 596/2014 (MAR) (which can be found at www.afm.nl) and on the Issuer's website. Furthermore, according to the most recent disclosures by Ms. Sayn-Wittgenstein in the AFM's separate substantial holdings register (which can be found at www.afm.nl), she held 2,088,461 shares in the Issuer through Chestnut Beteiligungsgesellschaft mbH ("Chestnut") at the time of such disclosures (27 October 2017). Ms. Sayn-Wittgenstein made an agreement with Mr. K.A. Winterstein which allows Chestnut to exercise the voting rights of Silver Beteiligungsgesellschaft mbH ("Silver") in the Issuer. Ms. Sayn-Wittgenstein and Mr. K.A. Winterstein share a family relationship. Further information on the majority shareholdings can be found on **page 99**.
5. Shareholding for Fiona Paulus are only considered until 17 October 2022, when she stepped down from the Board.

There were no changes in the Directors' shareholdings and share interests between the end of the year and 24 February 2023.

Directors' interests in RHI Magnesita's LTIP

The table below details outstanding share awards including the annual LTIP awards granted to the CEO and CFO during 2022.

	Scheme	Award Date	Share price used €	Share awards held at 1 January 2022	Awarded during the year	Vested during the year	Share awards lapsed during the year	Share awards held at 31 December 2022	Vesting date
Stefan Borgas	Performance shares	19 August 2019	44.534	38,397	—	—	38,397[1]	—	19 August 2022
	Performance shares	8 April 2020	22.7	90,396				90,396[2]	8 April 2023
	Performance shares	15 March 2021	48.28	43,579				43,579[3]	15 March 2024
	Performance shares	8 March 2022	31.228		70,372			70,372[4]	15 March 2025
Ian Botha	Performance shares	19 August 2019	44.534	16,840		—	16,840[1]	—	19 August 2022
	Performance shares	19 August 2019	44.534	16,841		—	16,841[1]	—	19 August 2022
	Performance shares	8 April 2020	22.7	39,647				39,647[2]	8 April 2023
	Performance shares	15 March 2021	48.28	19,107				19,107[3]	15 March 2024
	Performance shares	8 March 2022	31.228		30,852			30,852[4]	8 March 2025
	Conditional Award	26 November 2019	45.202	16,592		16,592		16,592[5]	26 November 2022

1. Following the testing of the performance conditions, this award has now lapsed.
2. Award levels were calculated using the average closing price for the five trading days prior to the award being granted being £19.976 converted to € (using average FX rate over the same five-day period of £0.881 to €1 = €22.7).
3. Award levels were calculated using the average closing price for the five trading days prior to the award being granted being £41.38 converted to € (using average FX rate over the same five-day period of £0.857 to €1 = € 48.28).
4. Award levels were calculated using the average closing price for the five trading days prior to the award being granted being £25.90 converted to € (using average FX rate over the same five-day period of £0.8295 to €1 = € 31.228).
5. Award levels were was calculated using the average closing price for the five trading days prior to the LTIP award being granted being £38.73 converted to € (using average FX rate over the same five days period of £0.8569 to €1 = €45.202).

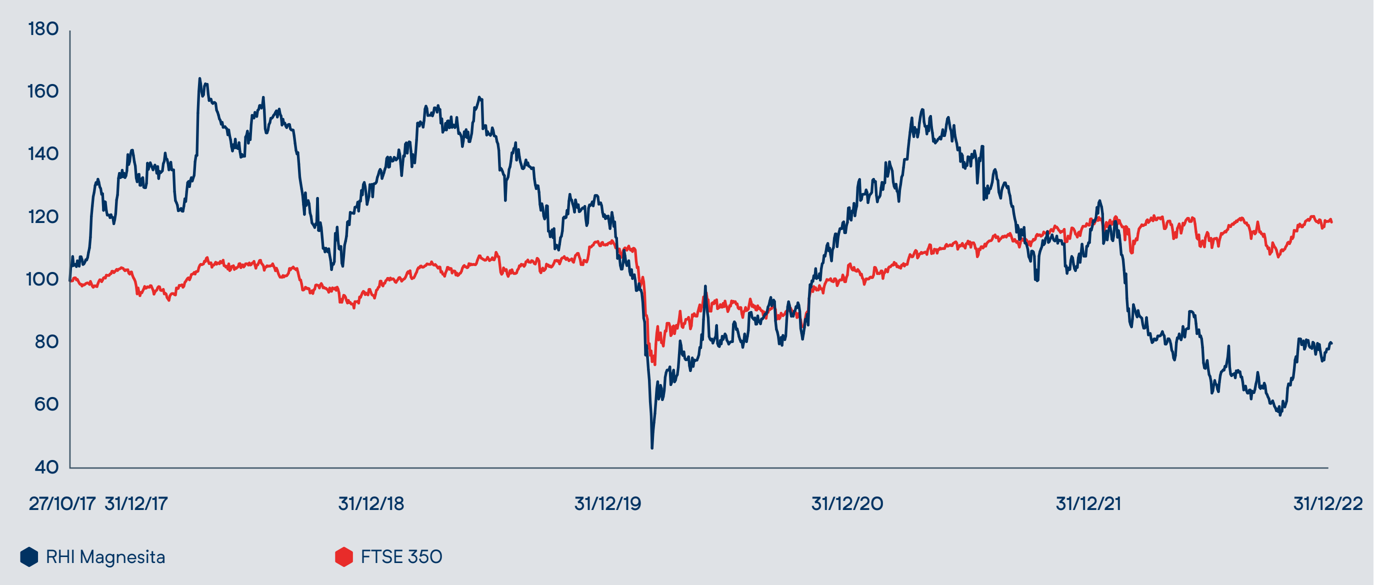
Review of past performance and CEO remuneration table (unaudited)

Share price performance

Shares are valued using the Company's closing market share price on 30 December 2022 of £22.24 (2021: £33.06). During 2022, the shares traded in the range of £15.84— £37.02.

RHI Magnesita total shareholder return

The graph below compares the Total Shareholder Return of the Company with the FTSE 350 Index from Admission date of 27 October 2017 to 31 December 2022. This is considered an appropriate comparator for RHI Magnesita because it is a constituent of the index.



Source: Datastream (Thomson Reuters)

Remuneration of the CEO

	2017	2018	2019	2020	2021	**2022**
Single figure of total remuneration[1]						
Stefan Borgas	€476,981	€2,073,350	€1,490,427	€1,892,862	€1,584,758	€3,015,013
Annual bonus payout as % of maximum[2, 3]						
Stefan Borgas	83.16%	88.04%	38.9%	50%	24%	42%
Long-term incentive vesting rates as % of maximum[4]						
Stefan Borgas	N/A	N/A	N/A	0%	0%	50%

1. The 2017 Single figure of Total Remuneration relates to the period 27 October 2017 to 31 December 2017.
2. The 2017 Annual bonus payout as a % of maximum relates to bonus targets set prior to the merger of the two companies that now form RHI Magnesita NV.
3. The percentage of maximum shown for the 2020 Annual bonus is the amount paid to the CEO. The formulaic bonus outcome was 100% of maximum. However, the bonus was capped at 50% of maximum due to the impact of the pandemic.
4. A long-term incentive plan was introduced when the Company was formed in October 2017. The first 2018 LTIP award was eligible to vest in 2021.

Annual percentage change in remuneration of the CEO (unaudited)

The table below illustrates the percentage change in annual salary, benefits and bonus between 2021 and 2022 for the CEO and the average for all Austrian employees of the Company. The CEO is an Austrian-based employee; therefore, the Committee feels that a comparator based on all Austrian employees is appropriate for the purposes of this analysis.

	Salary change (2021-2022)	Benefits change (2021 to 2022)	Annual bonus change (2021 to 2022)
CEO	4.45%	8132%[1]	85.52%
Average of employees	5.1%	2.2%	76.9%

1. Due to the first-time coverage of costs for health insurance and tax advisory costs, which have been part of the CEO's benefits since 2022 in the amount of up to € 15,064 (prior year € 183), there is a disproportionately high increase in benefits shown as a percentage increase compared to the absolute amount.

Directors and employee remuneration over time (unaudited)

The table below shows the Directors' total remuneration year on year change (on a full-time equivalent basis).

Year	Total Remuneration in FY 2022	Change % 2021 to 2022	Change % 2020 to 2021[1]	Change % 2019 to 2020[1]	Change % from 2018 to 2019[1]
Executive Directors[2]					
Stefan Borgas	€ 3,015,013	90.3%[2]	-16.28%	27%	-28.1%
Ian Botha	€ 2,102,371	124.1%[2]	-16.45%	N/A[3]	N/A[3]
Non-Executive Directors					
Herbert Cordt	£251,700	4.4%	6.09%	3.2%	—
John Ramsay	£128,200	4.3%	31.92%	12.9%	6.4%
Janet Ashdown[4]	£114,000	9.1%	19.92%	N/A[3]	N/A[3]
David Schlaff	£74,200	4.4%	5.98%	3.2%	—
Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg[4]	£74,698	5.1%	5.98%	3.2%	—
Fiona Paulus	£70,395	N/A[3]	5.99%	N/A[3]	N/A[3]
Jann Brown	£83,456	N/A[2]	N/A[3]	—	—
Karl Sevelda[4]	£88,611	7.6%	10.02%	3.2%	—
Marie-Héléne Ametsreiter	£84,400	N/A[3]	N/A[3]	—	—
Sigalia Heifetz	£79,800	N/A[3]	N/A[3]	—	—
Wolfgang Ruttenstorfer	£82,700	4.3%	5.99%	3.2%	—
Karin Garcia[5]	—	—	—	—	—
Martin Kowatsch[5]	—	—	—	—	—
Michael Schwarz[5]	—	—	—	—	—
Company performance					
Adjusted EPS	4.8	6.6%	36.0%	-41.1%	4.8%
Reported EBIT in € million	344	60.7%	77.3%	-55.8%	-4.4%
Operating Cash Flow in € million	155	165.7%	-18.72%	1.7%	-23.0%
Average remuneration (on a full-time equivalent basis)					
Employees of the Company[6]	€81,029	8.7%	-3.4%	7.7%	4.1%

1. For notes on the change from 2018 to 2019, please see the 2019 Annual Report, for the change from 2019 to 2020 the 2020 Annual Report and 2020 to 2021 the 2021 Annual Report.
2. The total remuneration for the Executive Directors has increased due to a higher bonus payout in 2022 and the vesting of the 2020 LTIP award.
3. Where the incumbent did not serve for the full year, the calculation has not been made as it is unrepresentative.
4. Janet Ashdown was appointed as Chairman of Remuneration Committee in June 2021. Karl Sevelda was appointed to the Nomination Committee in June 2021 and Stanislaus Prinz zu Sayn-Wittgenstein -Berleburg was appointed as Chairman of the Corporate Sustainability Committee on 29. November 2022. As a result, the total fees paid increased year-on-year.
5. Employee Representative Directors do not receive remuneration for that role, they are remunerated as employees of the Group.
6. The group of RHIM employees covers the parent company, namely all employees within the Austrian subsidiaries.

Annual Report on Remuneration
continued

Relative importance of spend on pay (unaudited)

The following table sets out the change in distributions to shareholders by way of dividend and share buyback and overall spend on pay in the financial year ended 31 December 2021 compared with the financial year ended 31 December 2022.

	2022 € million	2021 € million	Percentage change
Total gross employee pay	627.8	547.6	14.65%
Dividends	71.0	71.2	0.3%
Share buyback	0	95.5	N/A

Payments to past Directors (audited)

There were no payments to past Directors in the period 1 January to 31 December 2022.

Payments for loss of office (audited)

Fiona Paulus stepped down from the Board on 17 October 2022 and received fees to that date (£70,395). There were no additional payments.

2023 remuneration (unaudited)

Set out below is how the Directors' Remuneration Policy will be implemented during 2023.

Salaries and fees for 2023

Directors' salaries and fees (on a full-time equivalent basis)

Subject to approval at the 2023 AGM, the Directors' salaries and fees will be increased from 1 January 2023 by 4%. This compares to the increase to the wider workforce in Austria of 8.6%.

	2023[1]	2022[1]	Percentage change
Executives			
Stefan Borgas	€1,142,700	€1,098,800	4%
Ian Botha	€668,000	€642,300	4%
Non-executives			
Chairman (inclusive of all Committee fees)	£261,700	£ 251,700	4%
Non-Executive Directors	£77,100	£ 74,200	4%
Deputy Chairman & Senior Independent Director	£29,600	£ 28,500	4%
Chairmen of Audit & Compliance Committee, Remuneration Committee, Nomination Committee (unless held by the Chairman) and Corporate Sustainability Committee	£20,600	£ 19,900	4%
Membership of the Audit and Compliance and Remuneration Committees	£8,800	£ 8,500	4%
Membership of the Nomination and Corporate Sustainability Committee	£5,800	£ 5,600	4%

1. Fee and salary increases are 4% and then rounded down to the nearest 100.

The Company does not contribute to defined benefit pension schemes on behalf of Executive Directors or Non-Executive Directors. No director has a prospective entitlement under a defined benefit scheme.

Annual bonus for 2023

The maximum potential annual bonus opportunity for FY23 remains at 150% of salary for both the CEO and CFO. Adjusted EBITA has been retained as one of the financial targets and for 2023 the Committee has agreed to introduce Inventory coverage as a new financial measure. As a result, 70% of the bonus will be based on financial measures and 30% will continue to be based on key strategic objectives. The management believes that the inventory coverage target, which replaces operating cash flow as a KPI will create accountability on the reduction of inventory volumes in the organization and therefore will lead to a more sustainable inventory management over the financial year. Both the CEO and the CFO are required to use 50% of any bonus earned in excess of target (net of tax) to acquire shares in the Company that will be held for a minimum of three years.

Performance criteria	2023	2022
Adjusted EBITA	45%	35%
Operating Cash Flow	N/A	35%
Inventory Coverage	25%	N/A
Strategic Initiatives[1]		
Increase global Value Market Share	N/A	10%
Adjusted M&A EBITDA on signed transaction	10%	N/A
Reduce conversion cost	N/A	10%
PIFOT	10%	N/A
Use of Secondary Raw Material	10%	10%

1. The specific targets relating to the 2023 bonus have not been disclosed at this stage as they are considered by the Committee to be commercially sensitive, and it is not considered in the interests of shareholders to disclose further details on a prospective basis. Details will be provided on a retrospective basis in next year's Annual Report on Remuneration.

2023 LTIP awards

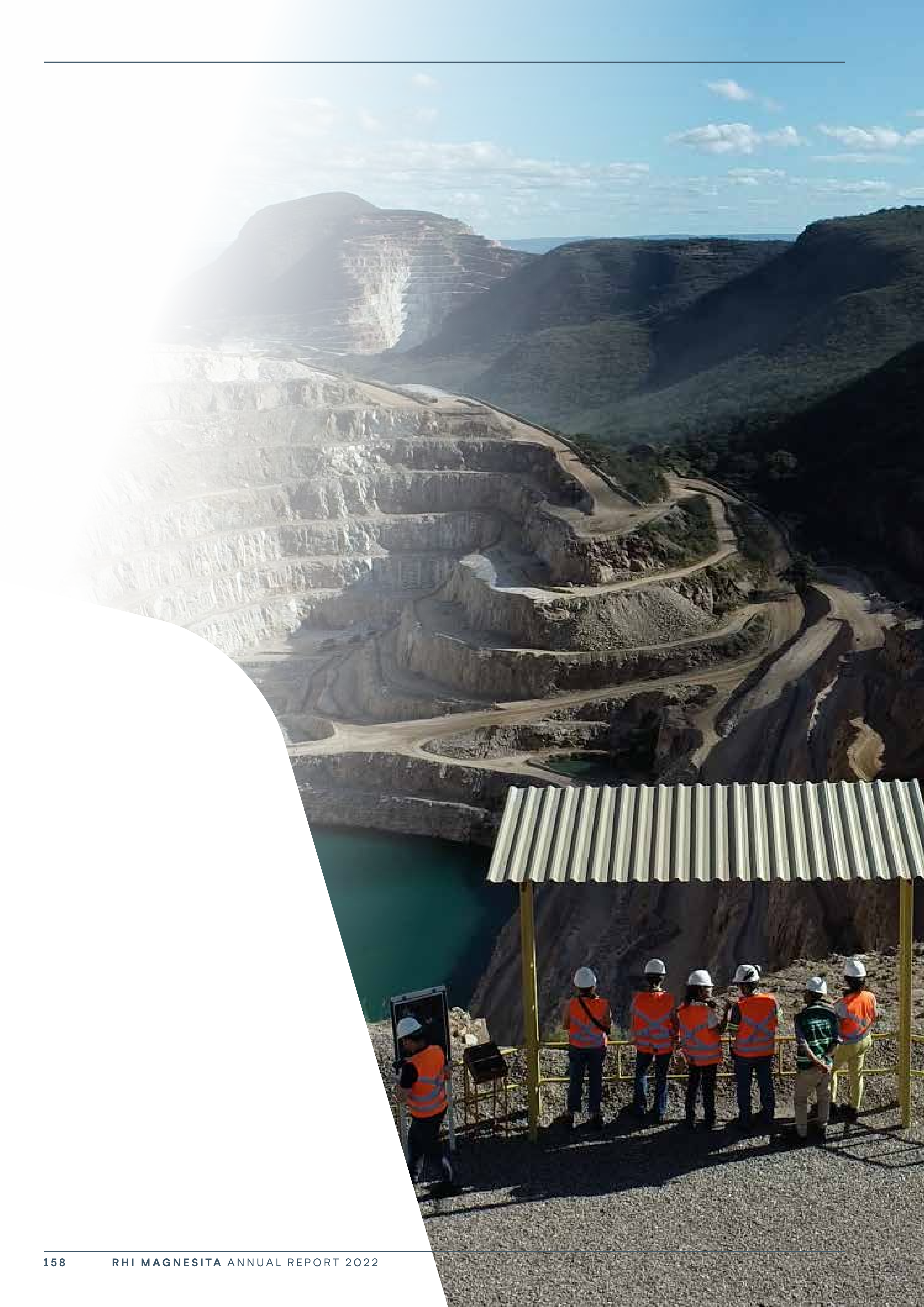
The CEO will be granted a LTIP award over shares with a value at grant of 200% and the CFO will be granted a LTIP award over shares with a value at grant of 150% of salary. The performance measures are the same as those set for the 2022 LTIP grant. The measures and the targets are set out below.

Performance measure	Weighting	Threshold (25% vesting)	Intermediate (75% of vesting)	Maximum (100% vesting)	Performance period
TSR[1]	25%	15%	22%	27%	2023 to 2025 (+2 year holding period post vesting)
Adjusted EPS (cumulative for the three-year performance period)[2]	50%	11.90/ps	12.65/ps	13.40/ps	
Reduce CO_2 emissions per tonne against 2018[2]	25%	-11%	-11.5%	-12%	

1. Measured from the date of grant to 3rd anniversary with a two-month average before each date.
2. Measured over the three financial years to 31 December 2025.
3. Awards vest on a straight-line basis between threshold intermediate and maximum.

This report was reviewed and approved by the Board on 26 February 2023 and signed on its behalf by order of the Board.

Janet Ashdown
Chairman of the Remuneration Committee



Financial Statements

Consolidated Financial Statements 2022

Consolidated Statement of Profit or Loss

for the year ended 31 December 2022

in € million	Note	2022	2021
Revenue	(5)	3,317.2	2,551.4
Cost of sales	(5)	(2,553.8)	(1,967.9)
Gross profit		**763.4**	**583.5**
Selling and marketing expenses		(131.3)	(108.1)
General and administrative expenses		(277.2)	(217.4)
Result from operating joint ventures and associates		0.1	0.0
Restructuring	(6)	6.8	(58.8)
Other income	(7)	4.8	29.1
Other expenses	(8)	(23.0)	(14.5)
EBIT		**343.6**	**213.8**
Interest income	(11)	8.3	14.2
Interest expenses on borrowings		(27.4)	(20.7)
Net (expense)/income on foreign exchange effects and related derivatives	(12)	(23.3)	2.8
Other net financial expenses	(13)	(30.7)	(21.2)
Net finance costs		**(73.1)**	**(24.9)**
Result from joint ventures and associates		0.0	100.2
Profit before income tax		**270.5**	**289.1**
Income tax	(14)	(103.7)	(39.4)
Profit after income tax		**166.8**	**249.7**
RHI Magnesita N.V. shareholders		155.7	243.1
Non-controlling interests	(26)	11.1	6.6

in €			
Earnings per share – basic	(15)	3.31	5.10
Earnings per share – diluted	(15)	3.26	5.05

Consolidated Statement of Comprehensive Income

for the year ended 31 December 2022

in € million	Note	2022	2021
Profit after income tax		**166.8**	**249.7**
Currency translation differences			
Unrealised results from currency translation		49.9	66.6
Unrealised results from net investment hedge and foreign operations	(37)	(5.4)	(10.2)
Deferred taxes thereon	(14)	(3.2)	4.1
Current taxes thereon	(14)	4.1	0.1
Reclassification to profit or loss – Disposal subsidiaries		0.7	(7.9)
Cash flow hedges			
Unrealised fair value changes	(36)	58.0	8.7
Reclassification to profit or loss		(7.2)	0.0
Deferred taxes thereon	(14)	(11.9)	(2.1)
Items that will be reclassified subsequently to profit or loss, if necessary		**85.0**	**59.3**
Remeasurement of defined benefit plans			
Remeasurement of defined benefit plans	(29)	58.0	25.3
Deferred taxes thereon	(14)	(18.5)	(5.2)
Share of other comprehensive income of joint ventures and associates		0.0	0.6
Reclassification to other reserves due to disposal of joint ventures and associates		0.0	(0.5)
Items that will not be reclassified to profit or loss		**39.5**	**20.2**
Other comprehensive income after income tax		**124.5**	**79.5**
Total comprehensive income		**291.3**	**329.2**
RHI Magnesita N.V. shareholders		282.7	320.5
Non-controlling interests	(26)	8.6	8.7

Consolidated Statement of Financial Position

as at 31 December 2022

in € million	Note	31.12.2022	31.12.2021
ASSETS			
Non-current assets			
Goodwill	(17)	136.9	114.4
Other intangible assets	(18)	316.6	282.6
Property, plant and equipment	(19)	1,203.7	1,089.7
Investments in joint ventures and associates		5.7	5.7
Other non-current financial assets	(35)	55.1	14.6
Other non-current assets	(20)	40.0	41.2
Deferred tax assets	(14)	128.2	202.4
		1,886.2	**1,750.6**
Current assets			
Inventories	(21)	1,049.1	976.5
Trade and other current receivables	(22)	578.9	568.2
Income tax receivables	(14)	38.7	35.1
Other current financial assets	(35)	1.3	2.9
Cash and cash equivalents	(23)	520.7	580.8
		2,188.7	**2,163.5**
		4,074.9	**3,914.1**

EQUITY AND LIABILITIES			
Equity			
Share capital	(24)	49.5	49.5
Group reserves	(25)	951.7	736.4
Equity attributable to shareholders of RHI Magnesita N.V.		1,001.2	785.9
Non-controlling interests	(26)	47.4	36.3
		1,048.6	**822.2**
Non-current liabilities			
Borrowings	(27)	1,404.9	1,321.0
Other non-current financial liabilities	(28)	92.8	106.0
Deferred tax liabilities	(14)	62.0	48.4
Provisions for pensions	(29)	214.7	269.0
Other personnel provisions	(30)	51.7	68.7
Other non-current provisions	(31)	80.0	63.6
Other non-current liabilities		6.3	5.9
		1,912.4	**1,882.6**
Current liabilities			
Borrowings	(27)	215.1	213.7
Other current financial liabilities	(28)	50.1	19.2
Trade payables and other current liabilities	(32)	780.3	883.2
Income tax liabilities	(14)	38.3	38.2
Current provisions	(31)	30.1	55.0
		1,113.9	**1,209.3**
		4,074.9	**3,914.1**

Consolidated Statement of Cash Flows

for the year ended 31 December 2022

in € million	Note	2022	2021
Cash generated from/(used in) operations	**(33)**	**287.5**	**(53.3)**
Income tax paid less refunds		(53.7)	(38.5)
Net cashflow from operating activities		**233.8**	**(91.8)**
Investments in property, plant and equipment and intangible assets		(156.7)	(252.1)
Investments in subsidiaries net of cash acquired		(63.2)	3.2
Cash flows from sale of subsidiaries net of cash disposed of		0.0	(4.8)
Cash receipts from the sale of equity instruments of interests in joint ventures		8.7	100.0
Cash inflows from the sale of property, plant and equipment		1.8	12.2
Cash inflows from the sale of financial assets		2.8	0.0
Dividends received from joint ventures and associates		0.0	7.6
Investment subsidies received		0.7	2.4
Interest received		6.1	2.7
Cash inflows/outflows from non-current receivables		0.1	(0.1)
Net cash used in investing activities		**(199.7)**	**(128.9)**
Repurchase of treasury shares		0.0	(95.5)
Acquisition of non-controlling interests		(1.4)	0.0
Dividends paid to RHI Magnesita shareholders		(70.5)	(71.2)
Dividend paid to non-controlling interests		(1.5)	(1.4)
Proceeds from long-term financing		344.4	516.1
Repayments of long-term financing		(278.0)	(112.7)
Changes in current borrowings		(12.2)	5.5
Interest payments		(41.0)	(26.6)
Repayment of lease obligations		(20.6)	(16.3)
Interest payments from lease obligations		(1.3)	(1.1)
Cash flows from derivatives		(1.8)	0.9
Net cash (used in)/provided by financing activities	**(34)**	**(83.9)**	**197.7**
Total cash flow		**(49.8)**	**(23.0)**
Change in cash and cash equivalents		**(49.8)**	**(23.0)**
Cash and cash equivalents at beginning of period		580.8	589.2
Foreign exchange impact		(10.3)	14.6
Cash and cash equivalents at end of period	(23)	520.7	580.8

Consolidated Statement of Changes in Equity

for the year ended 31 December 2022

		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 translation	Equity attributable to shareholders of RHI Magnesita N.V.	Non-controlling interests	Total equity
Note	(24)	(25)	(25)	(25)	(25)	(25)	(25)	(25)		(26)	
31.12.2021	**49.5**	**(117.0)**	**361.3**	**288.7**	**532.8**	**(7.1)**	**(125.1)**	**(197.2)**	**785.9**	**36.3**	**822.2**
Profit after income tax	**-**	**-**	**-**	**-**	**155.7**	**-**	**-**	**-**	**155.7**	**11.1**	**166.8**
Currency translation differences	-	-	-	-	-	-	-	48.6	48.6	(2.5)	46.1
Cash flow hedges	-	-	-	-	-	38.9	-	-	38.9	-	38.9
Defined benefit plans	-	-	-	-	-	-	39.5	-	39.5	-	39.5
Other comprehensive income after income tax	**-**	**-**	**-**	**-**	**-**	**38.9**	**39.5**	**48.6**	**127.0**	**(2.5)**	**124.5**
Total comprehensive income	**-**	**-**	**-**	**-**	**155.7**	**38.9**	**39.5**	**48.6**	**282.7**	**8.6**	**291.3**
Transactions with shareholders											
Dividends	-	-	-	-	(70.5)	-	-	-	(70.5)	(1.5)	(72.0)
Share transfer/vested LTIP	-	0.9	-	-	(0.9)	-	-	-	-	-	-
Change in non-controlling interests due to addition to consolidated companies [1]	-	-	-	-	-	-	-	-	-	6.1	6.1
Reclassification of puttable non-controlling interests without a change of control [1]	-	-	-	-	(4.8)	-	-	-	(4.8)	(6.1)	(10.9)
Change in non-controlling interests due to addition to consolidated companies [2]	-	-	-	-	-	-	-	-	-	5.0	5.0
Change in non-controlling interests without a change of control [2]	-	-	-	-	(0.4)	-	-	-	(0.4)	(1.0)	(1.4)
Share-based payment expenses	-	-	-	-	8.3	-	-	-	8.3	-	8.3
Transactions with shareholders	**-**	**0.9**	**-**	**-**	**(68.3)**	**-**	**-**	**-**	**(67.4)**	**2.5**	**(64.9)**
31.12.2022	**49.5**	**(116.1)**	**361.3**	**288.7**	**620.2**	**31.8**	**(85.6)**	**(148.6)**	**1,001.2**	**47.4**	**1,048.6**

1) Further information is provided under Note (35) and Note (42).
2) Further information is provided under Note (42).

in € million	Share capital	Treasury shares	Additional paid-in capital	Mandatory reserve	Retained earnings	Cash flow hedges	Defined benefit plans	Currency translation	Accumulated other comprehensive income/expenses relating to disposal groups	Equity attributable to shareholders of RHI Magnesita N.V.	Non-controlling interests	Total equity
		Group reserves										
						Accumulated other comprehensive income						
Note	(24)	(25)	(25)	(25)	(25)	(25)	(25)	(25)			(26)	
31.12.2020	**49.5**	**(21.5)**	**361.3**	**288.7**	**376.8**	**(13.7)**	**(145.7)**	**(257.1)**	**7.8**	**646.1**	**20.0**	**666.1**
Profit after income tax	**–**	**–**	**–**	**–**	**243.1**	**–**	**–**	**–**	**–**	**243.1**	**6.6**	**249.7**
Currency translation differences	–	–	–	–	–	–	–	58.5	(7.9)	50.6	2.1	52.7
Cash flow hedges	–	–	–	–	–	6.6	–	–	–	6.6	–	6.6
Defined benefit plans	–	–	–	–	–	–	20.0	–	0.1	20.1	–	20.1
Share of other comprehensive income of joint ventures and associates	–	–	–	–	(0.5)	–	0.6	–	–	0.1	–	0.1
Other comprehensive income after income tax	**–**	**–**	**–**	**–**	**(0.5)**	**6.6**	**20.6**	**58.5**	**(7.8)**	**77.4**	**2.1**	**79.5**
Total comprehensive income	**–**	**–**	**–**	**–**	**242.6**	**6.6**	**20.6**	**58.5**	**(7.8)**	**320.5**	**8.7**	**329.2**
Dividends	–	–	–	–	(71.2)	–	–	–	–	(71.2)	(1.4)	(72.6)
Shares repurchased [1]	–	(95.5)	–	–	–	–	–	–	–	(95.5)	–	(95.5)
Reclassification of puttable non-controlling interests without change of control	–	–	–	–	(1.6)	–	–	1.4	–	(0.2)	9.0	8.8
Change in non-controlling interests due to addition to consolidated companies	–	–	–	–	–	–	–	–	–	–	3.4	3.4
Reclassification of puttable non-controlling interests without a change of control	–	–	–	–	(20.0)	–	–	–	–	(20.0)	(3.4)	(23.4)
Share-based payment expenses	–	–	–	–	6.2	–	–	–	–	6.2	–	6.2
Transactions with shareholders	**–**	**(95.5)**	**–**	**–**	**(86.6)**	**–**	**–**	**1.4**	**–**	**(180.7)**	**7.6**	**(173.1)**
31.12.2021	**49.5**	**(117.0)**	**361.3**	**288.7**	**532.8**	**(7.1)**	**(125.1)**	**(197.2)**	**0.0**	**785.9**	**36.3**	**822.2**

1) The share buyback programme initiated in December 2020 has been completed in April 2021. The share buyback program was subsequently extended in May 2021 and completed in August 2021.

Notes

to the Consolidated Financial Statements 2022

Principles and Methods

1. Authorisation of Financial Statements and Statement of Compliance with International Financial Reporting Standards

The Consolidated Financial Statements of RHI Magnesita N.V. and its subsidiaries (collectively referred to as RHIM or the Group) for the year ended 31 December 2022 were approved and authorised for issue by the board of directors on 26 February 2023 and will be submitted for adoption to the Annual General Meeting of shareholders on 24 May 2023. RHIM a public limited company 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 Group is a global industrial group whose core activities include 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.

Basis for preparation

The Consolidated Financial Statements of the Group have been prepared on a going concern basis and in accordance with IFRSs as issued by the IASB and interpretations issued by the IFRIC, as endorsed by the European Union (EU).

The accounting policies that follow have been consistently applied to all years presented, except where otherwise indicated. 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.

The financial year of RHI Magnesita N.V. and the Group corresponds to the calendar year. Subsidiaries with a financial year different to the Group, due to local legal requirements, provide financial information to allow consolidation consistent with the Group's financial year. The Consolidated Financial Statements are presented in Euros and all values are rounded to the nearest € million, except where otherwise indicated. The Group has availed the exemption provided by section 264 paragraph 3 HGB of the German commercial Code for the following entities: RHI Urmitz AG & Co. KG (Koblenz), Magnesita Refractories GmbH (Wiesbaden), RHI GLAS GmbH (Wiesbaden), RHI Refractories Site Services GmbH (Wiesbaden), RHI Magnesita Deutschland AG (Wiesbaden). The exemption permits these entities, which are consolidated, to not prepare their stand-alone Financial Statements under local regulations.

Basis of consolidation

The Consolidated Financial Statements consolidate the Financial Statements of the Group. Subsidiaries are consolidated from the date on which the Group obtains control, including when control is obtained via potential voting rights, and continue to be consolidated until the date that control ceases.

The financial information of subsidiaries is prepared for the same reporting year as the parent company, using consistent accounting policies. When the Group ceases to have control, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognised in the Statement of Profit or Loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in Other Comprehensive Income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This treatment may mean that amounts previously recognised in Other Comprehensive Income are recycled through the Statement of Profit or Loss. Intercompany balances and transactions, including unrealised profits arising from intragroup transactions, are eliminated in full. Unrealised losses are eliminated in the same way as unrealised gains except that they are only eliminated to the extent that there is no evidence of impairment.

Non-controlling interests represent the equity in subsidiaries that is not attributable, directly or indirectly, to the Group's shareholders.

Please refer to the Company Financial Statements of RHI Magnesita N.V. for a list of the Company's subsidiaries, joint ventures and associates in which it holds more than 20%.

Going concern

In considering the appropriateness of adopting the going concern basis in preparing the Consolidated Financial Statements, the Directors have assessed the potential cash generation of the Group and considered a range of downside scenarios that model different degrees of potential economic downturn, using the same model performed for the viability assessment. This assessment covers the period to 31 December 2024.

The scenarios considered by the Directors include a severe but plausible downside and a reverse stress test which determines the level of EBITDA that could breach the Group's debt covenant. Further mitigating actions within management control would be undertaken in such scenarios, including but not limited to: fixed cost and capital expenditure reduction, raising debt or reducing or cancelling the dividend. These mitigation actions were not incorporated in the downside modelling.

The Directors have also considered the Group's current liquidity and available facilities. As of 31 December 2022, the Consolidated Statement of Financial Position reflects cash and cash equivalents of €520.7 million. In addition, the Group has access to a €600 million Revolving Credit Facility (RCF), which is currently undrawn and not relied upon for the purpose of the going concern assessment. The Group is in compliance with the debt covenant.

In the scenarios assessed and taking into account liquidity, available resources and before the inclusion of all mitigating actions, the Directors consider it is appropriate to continue to adopt the going concern basis in preparing the Consolidated Financial Statements for the period ended 31 December 2022.

2. Impact of new financial reporting standards and interpretations

Adoption of new financial reporting standards and interpretations

The following amendments of standards have become effective during the reporting period. None of these amendments had a material impact on the Group's accounting and measurement principles.

Standard	Title	Effective date[1]	Effects on RHI Magnesita Consolidated Financial Statements
Amendments of standards			
IFRS 3	Amendments to IFRS 3 Business Combinations (Update of an outdated reference to the Conceptual Framework in IFRS 3 without significantly changing the requirements in the standard)	01.01.2022	No material impact
IAS 16	Amendments to IAS 16 Property Plant and Equipment (Proceeds received from selling items produced while the entity is preparing the asset for its intended use, is prohibited from deducting against the cost of an item of PP&E. Instead, such proceeds are to be recognised in profit or loss)	01.01.2022	No material impact
IAS 37	Amendments to IAS 37 Provisions, Contingent Liabilities and Contingent Assets (Onerous Contracts — Cost of Fulfilling a Contract. It clarifies that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts)	01.01.2022	No material impact
Annual Improvements 2018-2020	Annual Improvements to IFRS Standards 2018—2020 (IFRS 1, IFRS 9, IFRS 16 and IAS 41)	01.01.2022	No material impact

1) According to EU Endorsement Status Report of 22.09.2022.

New financial reporting standards and interpretations not yet applied

The following financial reporting standards have been adopted by the EU and were not early adopted and are not expected to have a significant impact on the Group.

Standard	Title	Effective date[1]	Impact
New standards			
Amendments of standards			
IFRS 17	Amendments to IFRS 17 Insurance contracts (Require a current measurement model where estimates are remeasured in each reporting period. Also allows a choice recognising changes in discount rates)	01.01.2023	No material impact
IAS 12	Amendments to IAS 12 Income Taxes (Require to recognise deferred tax on transactions that, on initial recognition, give rise to equal amounts of taxable and deductible temporary differences)	01.01.2023	No material impact
IAS 1	Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2 (Disclosure of material rather than significant accounting policies)	01.01.2023	No material impact
IAS 8	Amendments to IAS 8 Accounting policies (Changes in Accounting Estimates and Errors clarifies how to distinguish changes in accounting policies from changes in accounting estimates)	01.01.2023	No material impact

1) According to EU Endorsement Status Report of 22.09.2022.

The IASB issued further standards, amendments to standards and interpretations yet to be adopted by the EU. They are not expected to have a significant impact on the Group.

Standard	Title	Effective date[1]	Impact
New standards			
Amendments of standards			
IAS 1	Amendments to IAS 1 Presentation of Financial Statements (Classification of Liabilities as Current or Non-current, depending on the rights that exist at the end of the reporting period)	01.01.2023	No material impact
IFRS 16	Amendments to IFRS 16 Leases (Lease Liability in a Sale and Leaseback)	01.01.2024	No material impact

1) According to EU Endorsement Status Report of 22.09.2022.

3. Significant Accounting Policies, Judgements and Estimates

Interests in other entities

Business combinations

Business combinations are accounted for using the acquisition method. The identifiable assets acquired and liabilities assumed, including any contingent consideration, are recognised at their fair values at the acquisition date. The amount of the purchase consideration and value of non-controlling interest on acquisition, if any, above the fair value of assets and liabilities is recognised as goodwill (see separate policy). Negative goodwill, if any, is recognised within other income immediately. Transaction costs related to a business combination are expensed as incurred. When control is obtained, any non-controlling interest is recognised as the proportionate share of the identifiable net assets. The acquisition of a non-controlling interest in a subsidiary and the sale of an interest while retaining control, are accounted for as transactions within equity unless they result in the loss of control. The difference between the purchase consideration or sale proceeds after tax and the relevant proportion of the non-controlling interest, measured by reference to the carrying amount of the interest's net assets at the date of acquisition or sale, is recognised in retained earnings as a movement in equity attributable to the Group's shareholders.

Where the Group acquires less than 100% of shares in a business combination, IFRS 3 'Business Combinations' allows an accounting policy choice whereby non-controlling interest is either reflected at fair value including allocation of goodwill or at the fair value of the assets and liabilities acquired, excluding goodwill. This accounting policy choice can be exercised individually for each acquisition. For business combinations achieved in stages, the Group's previously held equity interest is remeasured to fair value at the acquisition date. Any gains and losses arising from such remeasurement are recognised in profit or loss.

Net assets of subsidiaries not attributable to the Group are shown separately in equity as non-controlling interests.

As part of a business acquisition or subsequently, the Group may enter into agreements with non-controlling interests in the form of a call or written put option to acquire the outstanding shares. A call option provides the Group with the right to acquire the outstanding shares not already owned while a written put option allows the non-controlling interest to sell their shares to the Group. The option price may be based on an earnings multiple such as EBITDA subject to contractual limits, if any, or may be fixed and exercisable at a future date. A financial liability is recognised on the written put option at the present value of the estimated redemption amount. Where the option is assessed to result in the non-controlling interest transferring the risks and rewards of ownership to the Group, on acquisition, the financial liability forms part of the purchase consideration with no value assigned to non-controlling interests. The financial liability is measured in line with IAS 32 'Financial Instruments: Presentation' at amortised cost with subsequent changes in value reflected in the Statement of Profit or Loss. For fixed price call and put options, the risks and rewards of ownership relating to the outstanding shares are assumed to have transferred to the Group.

Where the risks and rewards of ownership under the option are not transferred to the Group, the financial liability is not considered as part of the purchase consideration and a non-controlling interest is recognised on acquisition. The financial liability is initially recognised against equity. The Group applies the provisions of IAS 32 'Financial Instruments: Presentation' and subsequently derecognises the non-controlling interest to the extent that it is equal or less than the financial liability, against equity. The financial liability is measured at amortised cost with changes in the carrying amount reflected in the Statement of Profit or Loss.

Dividends paid to non-controlling interest with a fixed price or option are reflected as an expense within other finance expense unless there is a contractual right to reduce the liability.

Goodwill may also arise upon investments in joint ventures and associates, being the surplus of the cost of investment over the Group's share of the net fair value of the identifiable net assets. Any such goodwill is recorded within the corresponding investment in joint ventures and associates.

Significant judgements: Control over Horn & Co Minerals Recovery and SÖRMAŞ
During the year, the Group acquired 51.0% and 86.8% interest in Horn & Co Minerals Recovery ("Mireco") and SÖRMAŞ, respectively. Judgement is required in assessing the level of control or influence over another entity in which the Group holds an interest. The Group considered its respective rights and power to control in terms of the purchase agreements and judged that the Group controls both entities and consolidated these from the date of control. The Group exercises control over Mireco and SÖRMAŞ as it has the power to steer the relevant activities of the business and can use this power to affect the variable returns that it is exposed to. This is achieved through the Group's voting rights and management representation.

Significant judgements: Recognition of non-controlling interest of Mireco
The acquisition of Mireco includes a call and written put option for the Group to acquire the outstanding shares based on an EBITDA to net debt earnings multiple. The Group has judged, based on the terms and pricing of the call and written put option, that the risks and rewards of ownership associated with the outstanding shares have not been transferred and a non-controlling interest was recognised on acquisition. The financial liability arising from the call and written put option has been recognised against the carrying value of the non-controlling interest and equity in accordance with the Group's policy.

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

Where 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. Fair values of physical assets are estimated with reference to comparable assets in the market.

When making estimates in the context of purchase price allocations on major acquisitions, the Group consults with independent experts who accompany the execution of the discretionary decisions and record it in appraisal documents. The Group has a period of one year from the date of control of the acquired businesses to update initial fair value estimates. The Group does not expect changes in these fair value estimates to have a significant impact on the recognised assets and liabilities over the remaining measurement period.

Goodwill and Other intangible assets

Goodwill

Goodwill arising on consolidation represents the excess of the cost of acquisition over the Group's interest in the fair value of the identifiable assets, liabilities and contingent liabilities of a subsidiary at the date of acquisition. Goodwill is initially recognised at cost and is subsequently measured at cost less any accumulated impairment losses. Goodwill recognised as an asset is reviewed for impairment at least annually.

Notes continued

On disposal of a subsidiary, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

Other intangible assets

Mining rights

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 economically viable volume.

Customer relationships

Customer relationships arise from the acquisition of business and are measured at assigned fair values on acquisition, less accumulated amortisation and impairments. These intangibles are amortised on a straight-line basis over their expected useful lives.

Development costs

Research costs are expensed in the year incurred and included in general and administrative expenses. Development costs, including internally developed software are only capitalised if the costs can be measured reliably and are expected to result in future economic benefits either through use or sale. Capitalisation will also only arise when the product or process development can be clearly defined and is feasible in technical, economic and capacity terms. For internally developed software, costs are capitalised when these can be directly and conclusively allocated to individual programmes and represent a significant extension or improvement on existing software. All other internally developed software costs are expensed. Development costs are amortised on a straight-line basis over their expected useful lives of up to ten years, with internally developed software amortised over a period of up to four years. Amortisation is recognised in cost of sales.

Other intangible assets

These mainly represent purchased third party software, land-use rights and patent fees and are recognised when future associated economic benefits are expected to accrue to the Group. These intangibles are initially measured at their acquisition cost and amortised over their expected useful lives.

The useful lives of the Group's main classes of intangible assets are:

Customer relationships	6 to 15 years
Internally generated intangible assets	4 to 18 years
Other intangible assets	4 to 65 years

The useful economic lives of intangible assets are reviewed regularly and adjusted if necessary.

The carrying value of other intangible assets are assessed at each reporting period for indicators of impairments. See below for accounting policy relating to impairment of non-current assets other than goodwill and intangible assets with indefinite useful live.

Significant judgement: Mineral Rights

Management have assessed that given the few or no viable alternatives for the Group's refractory products, which are extracted from the Group's mines and used in the construction and automotive industries together with their continued use in the transition to a green economy, no indicators of impairment have arisen and as a consequence the useful lives remain unchanged.

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 their expected useful life to their estimated residual values and from when they are available for use in the manner intended by management.

Construction costs of assets comprise of 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 a cost of the assets. 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 its 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.

Land and plant under construction are not depreciated. Depreciation of property, plant and equipment is based on the following useful lives:

Real estate, land and buildings	8 to 50 years
Technical equipment, machinery	8 to 50 years
Other plant, furniture and fixtures	3 to 35 years

The carrying value of property, plant and equipment is assessed at each reporting period for indicators of impairments. See below for accounting policy relating to impairment of non-current assets other than goodwill and intangible assets with indefinite useful live.

The residual values and economic useful lives of property, plant and equipment, are reviewed regularly and adjusted if necessary.

When components of plant or equipment have to be replaced at regular intervals, the relevant replacement costs are capitalised when economic benefits are expected to arise to the Group. 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.

Significant estimates
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. No such events are expected to arise which would have a material impact on carrying values within 12 months from the balance sheet date.

Leases

A contract, or part of a contract, that conveys the right to control the use of an identified asset for a period of time in exchange for payments to be made to the owners (lessors) is accounted for as a lease. Contracts are assessed to determine whether it is or contains, a lease at inception or when the terms and conditions of a contract are significantly changed. The lease term is the non-cancellable period of a lease, together with contractual options to extend or to terminate the lease early, where it is reasonably certain that an extension option will be exercised, or a termination option will not be exercised. At the commencement of a lease contract, a right-of-use asset and a corresponding lease liability are recognised, except for low-value items or for lease terms of less than 12 months. The commencement date of a lease is the date on which the underlying asset is made available for use. The lease liability is measured at an amount equal to the present value of the lease payments during the lease term that are not paid at that date. The lease liability includes contingent rentals and variable lease payments that depend on an index, rate, or where they are fixed payments in substance.

The lease liability is remeasured when the contractual cash flows of variable lease payments change due to a change in an index or rate when the lease term changes following a reassessment. Lease payments are discounted using the interest rate implicit in the lease. If that rate is not readily available, the incremental borrowing rate is applied. The incremental borrowing rate reflects the rate of interest that the lessee would have to pay to borrow over a similar term and similar security, the funds necessary to obtain an asset of a similar nature and value to the right-of-use asset in a similar economic environment.

In general, a corresponding right-of-use asset is recognised for an amount equal to each lease liability, adjusted by the amount of any pre-paid lease payment relating to the specific lease contract, less any lease incentives and for estimated restoration and removal costs. The depreciation on right-of-use assets is recognised in the Statement of Profit or Loss. Right-of-use assets are assessed for impairment indicators (see accounting policy on impairment of non-current assets).

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

Goodwill

Goodwill is reviewed at least annually for impairment. Any impairment loss is recognised as an expense immediately and is not subsequently reversed. For the purpose of impairment testing, goodwill is allocated to groups of individual Cash-Generating Units (CGUs) expected to benefit from the combination. If the recoverable amount of the CGU is less than the carrying amount of goodwill allocated to it, the resulting impairment loss is applied first to the allocated goodwill and then to the other assets on a pro-rata basis of the carrying amount of each asset. Reversals of impairment losses on goodwill are not permitted. The cash flows used to determine the recoverable amount of the CGU, including goodwill, is consistent with the description provided below for property, plant and equipment and other intangibles.

Significant estimates: Goodwill
Management makes use of various estimates and assumptions in determining the cash flow forecasts used in the impairment testing for goodwill. Key input assumptions include discount rates used to discount cash flows and the perpetual growth rate of the associated CGU. The effect of a 10% adverse change in the estimated discount rate or an adverse change of 50% in the perpetual growth rate would not result in an impairment of goodwill. For further details on goodwill impairment, refer to Note (17).

Property, plant and equipment and other intangibles

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. An asset is considered to be impaired if its recoverable amount is less than its carrying amount. In the Group, individual assets do not generate cash inflows independent of one another and assets are combined in CGUs, which largely generate independent cash inflows. These CGUs are combined in strategic business units and reflect the market presence and appearance and drive cash inflows. 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 the 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 products at the customer's plant, from the appropriate installation and support of optimal operations, to environmentally sound disposal with the customer or 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 CGUs are determined according to the production stages in the process of steel production. In the Industrial business unit, each industry line of business (Glass, Cement/Lime, Non-Ferrous Metals and Environment, Energy, Chemicals) forms a separate CGU. All raw material producing facilities are combined in one CGU.

The recoverable amount of a CGU is the higher of its fair value less costs of disposal and its value in use (present value of future cash flows). In assessing value in use, the estimated future cash flows of the asset or CGU in its present condition are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks, including country, specific to the CGU. In determining fair value less costs to sell, consideration will be given to whether the value of the CGU can be determined from an active market (e.g., recognised exchange) or a binding sale agreement which are classified as level 1 in the fair value hierarchy under IFRS 13 'Fair Value Measurements'. Where this is not determinable, fair value less costs to sell for a CGU is usually estimated with reference to a discounted cash flow model, similar to the method used for value in use, but may include estimates of future production, revenues, costs and capital expenditure not included in the determination of value in use. Additionally, cash flow estimates include the impact of tax and are discounted using a post-tax discount rate. An estimate made on this basis is classified as level 3 in the fair value hierarchy.

The cash flows used in determining the recoverable amount are aligned with the first four years of the strategic business and financial planning models and incorporates a terminal value. 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. To forecast the CGUs' cash flows, management predicts the growth rate using external sources for the development of the customers' industries and expert assumptions, including forecasts about the regional growth of steel production and the output of the non-steel clients. Growth rates are also influenced by the development of the specific refractory consumption patterns, including technological improvements.

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 or for other intangible assets ceases to exist, a reversal of the impairment is recognised in profit or loss. An impairment loss is reversed only to the extent that the CGUs carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised in prior years.

Significant judgements

Management reviewed CGUs for indicators of impairment. These indicators included both external factors affecting the CGUs, such as laws and regulations in specific countries and global and local economic conditions and internal factors, including but not limited to, useful lives of assets, major breakdowns or decisions to divest from certain businesses. Based on the impairment indicator review, no impairment indicators were identified at any of the CGU, which did not have goodwill allocated to it.

Additionally, management has assessed the useful lives of assets and these continue to be appropriate due to the limited refractory and other product alternatives available and as the steel and industrial sectors in which the Group operates, continue to play a significant part in the transition towards sustainable output and the transition to a green economy.

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 at amortised cost, fair value through profit or loss or 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.

Financial assets are classified as amortised cost, if the contractual cash flows include solely payments of principal and interest and held in order to collect the contractual cash flows. If the contractual cash flows include solely payments of principal and interest, but are held collect both the contractual cash flows and sell the financial asset, then they are classified as fair value through other comprehensive income. If the contractual cash flows do not solely include payments of principal and interest, then they are classified as fair value through profit or loss.

The Group initially recognises securities on the trading date when it 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.

Investment in debt securities are 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.

Investments in equity securities, including non-consolidated subsidiaries, are of minor importance and recognised and measured at fair value through profit or loss, since the irrevocable option for subsequent measurement at fair value through OCI was not exercised.

Financial assets at amortised costs are measured by applying the effective interest method.

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 below).

In factoring arrangements, trade receivables are derecognised where the Group transfers substantially all the risks and rewards associated with the financial assets.

Cash and cash equivalents
Cash and cash equivalents include cash on hand, cheques received, cash at banks and short-term cash deposits with an original term of up to three months. Moreover, investments in money market funds exposed to insignificant value fluctuations due to their high credit rating and investments in short-term money market instruments that can be converted to defined cash amounts within a few days at any time, are also reflected as cash equivalents.

Borrowings
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 periods, these liabilities are measured at amortised cost applying the effective interest rate method.

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.

Trade payables and other current liabilities
These liabilities are initially recognised at fair value, and subsequently measured at amortised cost. The Group may participate in supply chain finance arrangements whereby suppliers may elect to receive a discounted early payment of their invoice from a bank as opposed to the agreed contractual payment terms. Where this arises, the Group settles the amount owed to the bank. The invoice due date as well as the value of the original liability remains unaltered. The Group assesses whether these arrangements modify the terms of the original trade payable. Financial liabilities subject to supply chain finance arrangements, that do not modify the terms of the original invoice, continue to be classified as trade payables.

Significant Judgement: Trade payables subject to supply chain finance arrangements
Management have judged that trade payables subject to supply chain finance arrangements do not modify the terms of the original invoice and as such the affected invoices continue to be recognised as such.

Derivative financial instruments and hedging activities
Derivative financial instruments not designated as hedges
Derivative contracts are used in the management of interest rate risk, commodity price risk and foreign currency risk. These derivative financial instruments, which are not designated in an effective hedging relationship in accordance with IFRS 9 'Financial Instruments', are recognised initially at fair value on the date on which a derivative contract is entered into and subsequently remeasured at fair value with changes in fair value reflected in the Statement of Profit or Loss. Derivatives are carried as assets when the fair value is positive and as liabilities when the fair value is negative.

Derivative financial instruments include forward exchange contracts and embedded derivatives in open orders denominated in a currency other than the functional currency of either contracting party, with the assessment 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.

Forward purchase or sale arrangements for the physical delivery of non-financial assets that are entered into in line with the Group's expected purchase, sale or usage requirements ("own use") and are normally entered into to hedge the associated price risk are not recognised or measured at fair value. These forward contracts are assessed to be off-balance-sheet executory contracts due to their own use features. If the own use exemption is not met, the forwards will be recognised at fair value, with fair value remeasurement recorded in the Statement of Profit or Loss.

Significant Judgement: Own use exemption on gas and power forward purchase and physical delivery CO_2-certificate forwards
Due to the reduction of free CO_2 emission certificates and the expected increase in CO_2 market prices, the Group hedges the associated price risk by use of physical delivery forward purchases for own use. The Group also enters into fixed price and quantity forward gas and power contracts to secure supply for its production process and reduce price volatility. The own use exemption does not require fair value recognition and measurement of the forward purchases and thus avoid volatility in the Statement of Profit of Loss. The own use exemption requires that purchases of these forward contracts will be utilised. The Group settles the forwards through physical delivery and does not intend to sell any (unexpected) surplus of either gas, power or CO_2 emission certificates for speculative purposes. Management have judged that these forward purchases based on current and expected future requirements satisfy the own use exemption and have not applied fair value recognition and measurement.

Derivative financial instruments designated as Cash flow hedges
For derivative financial instruments which are designated as an effective cash flow hedge in accordance with IFRS 9 'Financial Instruments', hedge accounting is applied. The hedging instruments, used to hedge the underlying items, are measured at fair value with the effective part of the fair value changes recorded in

Notes continued

Other Comprehensive Income as an unrealised gain or loss. At the time of the realisation of the underlying transaction, the fair value changes of the hedging instrument recognised in Other Comprehensive Income 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. Where the hedged item is a non-financial asset or liability, the amount accumulated in Other Comprehensive Income is transferred to the initial carrying amount of the asset or liability. If the hedged transaction is no longer expected to take place, the accumulated amount recorded in Other Comprehensive Income is reclassified to the Statement of Profit or Loss. All relationships between hedging instruments and hedged items are documented, as well as risk management objectives and strategies for undertaking hedge transactions. The effectiveness of hedges is also continually assessed and hedge accounting is discontinued when there is a change in the risk management strategy.

Hedge of net investment
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 in Other Comprehensive Income is reclassified to the Statement of Profit or Loss.

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 under the contract and the cash flows expected to be received. The measurement of expected credit losses is generally a function of the probability of default, loss given default and the exposure at default.

Loss allowance is measured for expected credit losses on debt instruments, trade receivables and contract assets measured at amortised cost. 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 ECL 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 relevant in determining if the 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.

The Group makes use of the practical expedient for financial instruments with an 'investment grade' rating that it is assumed to be of low credit risk and with no significant increase in the credit risk. Under the practical expedient, 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 assumes that a default event has occurred when trade receivables are 180 days past due unless reasonable and supportable information confirms otherwise. 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 recovering amounts due.

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 materials 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.

Provisions
Provisions are recognised when the Group incurs a legal or constructive obligation as a result of past events, 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.

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 recognised once 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. The Group'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. These provisions 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 a probable loss. Assessment of the likelihood of loss includes analysis of available evidence, including the opinion of internal and external legal advisors of the Group.

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 within current provisions.

Employee related benefits

Provisions for Post-employment benefits

Pension plans

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

Defined contribution plans limit the Group's obligation to the agreed contributions to earmarked pension schemes. The contributions are expensed as incurred.

Defined benefit plans require the Group to provide agreed benefits to active and former employees and their dependents.

Pension obligations are measured using the projected unit credit method and is netted against the fair value of the plan assets, if any. If the plan assets are not sufficient to cover the obligation, the net obligation is recognised as a liability. However, if the plan assets exceed the obligations, the net surplus recognised is limited to reductions of future contribution payments to the plan and is presented as other non-current assets in the Statement of Financial Position. The Group applies the requirements of IFRIC 14 and restricts recognition of the net surplus by applying an asset recognition ceiling where the Group does not have an unconditional right to a refund, assuming full settlement of the liabilities. Changes in the asset ceiling are recorded in Other Comprehensive Income.

The present value of defined benefit obligations are determined separately for each plan, annually, by independent qualified actuaries. 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, which are based 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 are based on an average of past years, which is also considered to be realistic for the future, while the retirement age is based on the respective statutory provisions of the country concerned.

Remeasurement gains and losses are recorded net of deferred taxes under Other Comprehensive Income in the period incurred.

Significant estimate: Pension plans

The measurement of defined benefit obligation and plan assets requires use of estimates such as discount rates, mortality rates, salary increases and inflation. These estimates are reviewed and update when a valuation is performed by third party experts. Further details of the estimates and assumptions together with sensitivities on changes to assumptions is reflected in Note (29). Changes in these assumptions may result in differences between cash outflows expected at the reporting date and actual cash outflows.

Other post employment benefits

Includes provisions for termination benefits 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 and is regarded as a post employment benefit under IAS 19 'Employee Benefits'. 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 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 plans and included in the personnel expenses of the functional areas.

Other employee benefits
This includes service anniversary bonuses, payments to semi-retirees and lump-sum settlements.

Service anniversary bonuses are one-time special payments that are dependent on the employee's wage/salary and length of service. The employer is required by collective bargaining agreements or company agreements to make these payments after an employee has reached a certain number of years of uninterrupted service with the same company. Obligations are mainly related to service anniversary bonuses in Austrian and German group companies. 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.

Income taxes
Income tax expense represents the sum of current tax and deferred tax.

Income tax is recognised in the Statement of Profit or Loss, except to the extent that it relates to items recognised in Other Comprehensive Income or directly in equity, including tax related impacts.

Current tax is based on the taxable profit for the period and is determined in accordance with the rules applicable in the relevant jurisdictions and includes taxes relating to prior periods. The liability for current tax is calculated using tax rates and laws that have been enacted or substantively enacted at the balance sheet date.

Deferred tax is provided, using the liability method, on temporary differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes. Deferred tax liabilities are recognised for all taxable temporary differences except:

- Where the deferred tax liability arises on initial recognition of goodwill
- Where the deferred tax liability arises on the initial recognition of an asset or liability in a transaction that is not a business combination, at the time of the transaction, affects neither accounting profit nor taxable profit or loss and, at the time of the transaction, does not give rise to equal taxable and deductible temporary differences
- In respect of taxable temporary differences associated with investments in subsidiaries and associates and interest in joint arrangements, where the Group is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future
- For financial instruments which were issued by subsidiaries to non-controlling interests and which are classified as a financial liability in accordance with IFRS

Deferred tax assets are recognised for deductible temporary differences, carry-forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which these can be utilised, except where the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and at the time of the transaction, affects neither accounting profit nor taxable profit and loss and, at the time of the transaction, does not give rise to equal taxable and deductible temporary differences.

In respect of deductible temporary differences associated with investments in subsidiaries, associates and interest in joint arrangements, deferred tax assets are recognised only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable or increased to the extent that it is probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period when the asset is realised or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the balance sheet date. Deferred taxes of the Austrian group companies are determined at the corporation tax rate which is expected to be applicable when the temporary differences reverse (24.0% if the temporary difference is reversing in 2023 and 23.0% if the temporary difference reverses in 2024 or later). Deferred tax assets and liabilities of the Brazilian group companies are measured at 34.0%.

Deferred tax assets and liabilities are offset only when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the current tax assets and liabilities on a net basis or to realise the assets and settle the liabilities simultaneously.

Where tax legislation may not be clear or result in uncertainty, the Group will determine its tax obligations and resulting income tax expense using an approach which it believes has a probable chance of being accepted by the tax authorities based on historical experience, legal advice and communication with the tax authorities, as appropriate. Where the Group adopts an approach to an uncertain tax position that it regards as having a less than probable chance of being accepted by the tax authorities, the income tax expense and resulting income and deferred tax balances are adjusted to reflect this uncertainty using either the most likely outcome method or the expected value method.

Significant judgement: Uncertain tax treatments and recognition of deferred tax assets
Management makes judgements in relation to the recognition of current and deferred income taxes. In making judgements, management believes that the tax positions the Group adopts are in line with the applicable legislation and reflect the probable outcome. The tax obligations and receivables, upon audit by the tax authorities at a future date, may differ as a result of differing interpretations. These interpretations may impact the expected timing and quantum of taxes payable and recoverable.

Significant estimates: Recognition of deferred tax assets
Income tax expense is based on the tax laws applicable in the individual countries. Due to their complexity, the tax items presented may be subject to different interpretations by local finance authorities. When determining the amount of the deferred tax assets to be recognised, mainly relating to tax-losses, an estimate is required of future taxable income which is influenced by factors such as prices, gross profit margins and interest rates. A 10% change in the future taxable profit from the assumption made on the reporting date within the planning period defined for the accounting and measurement of deferred taxes would not result in a significant change in the carrying amount of deferred tax assets on recognised tax losses, over a 12-month period from the date of these Consolidated Financial Statements.

Revenue, income and expenses

Revenue 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. Revenue is recognised 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 at inception and limits the recognition of revenue subject to the variability, until it is highly probable that a significant reversal of cumulative revenue recognised will not occur. The Group applies the practical expedient in IFRS 15 'Revenue from Contracts with Customers' and does not recognise the impact of financing for payment terms as the average credit terms is currently 60 days. 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 obligation. 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.

For the delivery 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. 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 usually performed before control of the products is transferred to the customer.

In consignment arrangements, the Group retains control of the goods generally until a withdrawal of the products from the consignment 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 usually comprise of two performance obligations being (1) the promise to transfer products and (2) provide services which are capable of being distinct and separately identifiable in the context of the contract. Accordingly, the transaction price is allocated based on the relative stand-alone selling prices of the product and service. Revenue from services is recognised over time using an input method to measure progress towards completion of the service as 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.

Expected penalty fees from guaranteed durabilities on refractory products are considered as a variable consideration in the form of a contract or a refund liability. However, the estimation of the variable consideration is not subject to a constraint as the Group has significant experience with promising durabilities and as a consequence does not expect significant reversal of revenue recognised in prior periods. All other product warranties issued by the Group 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 and is conditional on something other than the passage of time, a contract asset, excluding any amounts presented as a receivable is recognised.

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.

Contract costs, which are defined as the incremental costs of obtaining a contract, are recognised as an asset where the Group expects to recover those costs, except for those costs which are expected to be recovered within 12 months.

As the term of customer contracts is less than one year, the Group adopted the practical expedient not to disclose performance obligations for contracts with original expected duration of less than one year.

Notes continued

Significant Judgement: 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 being the performance of a management refractory service, exists.

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.

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.

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.

Interest income and expenses

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

Dividends

Dividends from investments that are not accounted for using the equity method are recognised in the Statement of Profit or Loss at the time the legal claim arises.

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.

Consolidated subsidiary financial information is based on the currency of the primary economic environment in which it operates (functional currency).

Foreign currency transactions and balances

In individual subsidiaries, joint ventures and associates, transactions in foreign currency are translated into the functional currency at the rate of exchange prevailing on the dates 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 the Statement of 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, other than those measured at fair value, are carried at historical rates and not retranslated subsequent to initial recognition.

Group companies

Financial information of foreign subsidiaries with a functional currency different to the Euro are translated 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.

On disposal of a non-Euro functional currency subsidiary, joint venture or associate, the related accumulated exchange gains and losses recognised in equity are reclassified to the Statement of Profit or Loss. 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.

The Euro exchange rates of the currencies of the Group's significant operations are shown in the following table:

Currencies	1 € =	Closing rate 31.12.2022	Closing rate 31.12.2021	Average rate[1] 2022	Average rate[1] 2021
Brazilian Real	BRL	5.63	6.30	5.47	6.38
Canadian Dollar	CAD	1.45	1.44	1.37	1.49
Chinese Renminbi Yuan	CNY	7.42	7.20	7.09	7.68
Indian Rupee	INR	88.26	83.89	82.50	87.76
US Dollar	USD	1.07	1.13	1.06	1.19

1) Arithmetic mean of the monthly closing rates.

4. Climate change and energy transition

In 2019 the Group announced its commitment to reduce Scope 1 and Scope 2 and 3 (raw materials) CO_2 emissions intensity by 15% by 2025, compared to a 2018 baseline. The below describes how the Group has considered climate related impacts in some key areas of the Consolidated Financial Statements and how this translates into the valuation of its assets and measurement of liabilities, as progress is made in reducing its own CO_2 emissions and prepares for the energy transition and technological changes that are likely to affect its customer industries.

Note (3) includes the significant accounting estimates, judgements and key sources of estimation uncertainties and how those uncertainties have the potential to have a material effect on the Consolidated Statement of Financial Position in the next 12 months. This note describes the key areas of climate impacts that potentially have longer-term effects on amounts recognised at 31 December 2022.

Financial planning assumptions

As disclosed in the Sustainability section on page 65, climate related risks faced by the Group include physical and transitional risks. The most material transitional risk impact is expected to be higher operating costs due to an increase in the level or scope of carbon pricing and changes to regulatory frameworks. This risk is most prominent in Europe where the existing system of allowances is to be replaced by the Carbon Border Adjustment Mechanism, with all existing CO_2 emissions allowances to be progressively phased out by 2034. The Group has also identified climate related opportunities, such as increased demand for its products arising from the transition by its customers to lower-carbon emitting industrial processes and increased demand for refractory products that are produced with a lower carbon footprint.

The Consolidated Financial Statements are based on reasonable and supportable assumptions that represent management's current best estimate of the range of economic conditions that may exist in the foreseeable future. The Group has performed an assessment of the potential future impact of climate change on key elements of its Consolidated Financial Statements utilising the Paris-aligned Mitigation and Hot House World Limited mitigation scenarios. The largest impact from higher carbon prices as contained in these scenarios is from 2026 onwards. The negative impacts are concentrated within the Group's assets located in Europe whilst opportunities are expected to be global in nature.

The Group is investing in the research and development of new technologies for the manufacturing of refractories which may enable it over the long term to avoid or capture its CO_2 emissions and thereby mitigate the impact of higher carbon prices.

Impairment of Goodwill and PP&E

Cash flow projections for its CGUs are based on the Group's one-year internal forecasts, the results of which are reviewed by the Board. The forecasts are extrapolated to five years based on management's expectations. Management then applies a terminal value which is derived from the fifth year forecasted cash flows.

The nominal growth rate is equal to the long-term rate of growth in steel/cement and/or inflation (depending on the country and business involved) and in any case no higher than the average long-term growth rate of the reference market. The Group has also taken account of the long-term impact of climate change, in particular by considering in the estimation of the terminal value a long-term growth rate in line with the change in steel/cement demand in 2030-2050 based on the specific characteristics of the businesses involved.

The Group is not currently subject to the European Carbon Border Adjustment Mechanism ('CBAM'). However, management believes that it is plausible that the CBAM could impact the Group from 2030 and have modelled the potential impact of the CBAM into its EU assets. Management is currently assessing the strategy and options to maximise the opportunities and minimise the impact of this regulation. Absent to any mitigating action by management, it is expected that the gross profit could reduce by 26% from 2030, on average across the EU assets and increase by 20% in regions outside the EU.

Restoration provisions

Management recognises liabilities that are expected to be incurred in relation to rehabilitation and restoration of the mining sites. As of balance sheet date, the Group's mines have an expected life between 13 and 100 years. The introduction of more stringent legislation could result in our mining operations to become uneconomical earlier than anticipated thus affecting the timing of our restoration liabilities. The discount rate used to measure asset restoration provisions is between 10-50-years term, in line with available government bond rates.

Management does not expect any reasonably possible change in the expected timing of restoration of our mines to have a material effect on the Group total provisions, assuming cash flows remain unchanged.

Notes continued

Deferred Tax assets

In jurisdictions where new or additional climate change related legislation is enacted, our taxable profits could be affected thereby impacting the recoverability of deferred tax assets. It is expected that sufficient deferred tax liabilities and forecasted taxable profits are available for recovery of the deferred tax assets recognised at 31 December 2022. The assessment of deferred taxes is described in Note (14). For certain deferred tax assets recognised in Brazil, the period extends beyond 5 years. Currently, no legislation is in place in Brazil that could limit the timing and, or the extent of the recognised deferred tax assets.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

5. Segmental analysis

The Group comprises the operating segments Steel and Industrial. The segmentation of the business activities reflects the internal control and reporting structures and is regularly monitored by the Chief Executive Officer (Chief Operating Decision Maker (CODM)), who has the responsibility over allocation of resources and evaluates the performance of each segment.

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 and 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 strategic business 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. Revenues and Gross profit are the key internal performance measures provided to and used by the CODM. 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 centrally and separately and thus not allocated to the segments.

Segment assets include trade receivables and inventories, which are available to the operating segments and are reported to the CODM for control and measurement, property, plant and equipment, goodwill and other intangible assets, are allocated to the segments based on the capacity of the productive assets base. All other assets are not allocated.

Segment reporting by operating company division

The following tables show the financial information for the operating segments for the year 2022 and the previous year:

2022 in € million	Steel	Industrial	Group 2022
Revenue	**2,371.4**	**945.8**	**3,317.2**
Gross profit	**521.0**	**242.4**	**763.4**
EBIT			**343.6**
Net finance costs			(73.1)
Profit before income tax			**270.5**
Depreciation and amortisation charges	(101.2)	(43.3)	(144.5)
Segment assets 31.12.2022	2,231.9	911.3	3,143.2
Investments in joint ventures and associates 31.12.2022			5.7
Reconciliation to total assets			926.0
			4,074.9
Additions to property, plant and equipment and intangible assets	128.6	68.8	197.4

2021 in € million	Steel	Industrial	Group 2021
Revenue	**1,822.9**	**728.5**	**2,551.4**
Gross profit	**393.7**	**189.8**	**583.5**
EBIT			**213.8**
Net finance costs			(24.9)
Result from joint ventures and associates			100.2
Profit before income tax			**289.1**
Depreciation and amortisation charges	(93.1)	(38.0)	(131.1)
Segment assets 31.12.2021	2,146.3	724.2	2,870.5
Investments in joint ventures and associates 31.12.2021			5.7
Reconciliation to total assets			1,037.9
			3,914.1
Additions to property, plant and equipment and intangible assets	196.0	83.5	279.5

No single customer contributed 10% or more to consolidated revenue in 2022 and in 2021. Companies that 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 2022
Shaped products	1,100.4	692.6	1,793.0
Unshaped products	449.3	192.1	641.4
Management refractory services	755.7	0.2	755.9
Other	66.0	60.9	126.9
Revenue[1)]	**2,371.4**	**945.8**	**3,317.2**

In 2021, revenue was classified by product group as follows:

in € million	Steel	Industrial	Group 2021
Shaped products	842.7	518.9	1,361.6
Unshaped products	338.2	146.0	484.2
Management refractory services	575.0	0.0	575.0
Other	67.0	63.6	130.6
Revenue[1)]	**1,822.9**	**728.5**	**2,551.4**

1) Revenue includes €1,047.9 million (2021: €749.2 million) relating to the Solutions Business. Solutions Business is a customer classification that is characterised by sales of end-to-end solutions covering large parts of the customer process chain.

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 €44.7 million (2021: €48.0 million) is transferred over time and an amount of €82.2 million (2021: €82.6 million) is transferred at a point of time.

Segment reporting by country

The Revenue is based on the locations of the customers.

in € million	2022	2021
Netherlands	11.2	8.2
USA	586.5	416.8
India	344.0	255.4
Brazil	367.8	252.0
PR China	221.6	201.2
Other countries	1,786.1	1,417.8
Revenue	**3,317.2**	**2,551.4**

The carrying amounts of goodwill, other intangible assets and property, plant and equipment are classified based on the location of the Group companies:

in € million	31.12.2022	31.12.2021
Brazil	464.8	396.5
Austria	352.9	331.4
USA	234.1	229.3
PR China	171.4	161.8
Other countries	434.0	367.7
Goodwill, intangible assets and property, plant and equipment	**1,657.2**	**1,486.7**

6. Restructuring

Summary of restructuring and write-down expenses recognised as follows:

in € million	2022	2021
Restructuring income/(expenses)	6.8	(58.8)

2022

Following the approval by the regional government in Germany for the repair, upgrade and connection of the railway infrastructure to the Mainzlar plant, the Group committed to continue with its operations. The commitment was regarded as an indicator of an impairment reversal, following the write down of the non-current assets in 2020 of €7.7 million. The reversal of the write down amounted to €5.3 million in 2022. Additionally, around €6.4 million in employee restructuring and plant dismantling provisions were reversed.

The Group decided to close the operations at the plant in Dashiqiao, China, resulting in employee restructuring expenses of €2.2 million. Plant idling costs incurred during 2022 of €3.4 million are included within restructuring expenses. The Group continues its negotiations with the joint venture partner to exit its share of the net assets and amounts due of €26.4 million, see Note (28).

2021

In September 2021, the plant in Dashiqiao, China, was shut down and production suspended. The recoverable amount of Dashiqiao's assets was deemed to be equal to the fair value less costs of disposal and was estimated with reference to the difference between net assets to be given up and the amount of the expected waiver of the dividend liability as per 31 December 2021. As a result, write-down expenses of €29.0 million were recognised, of which €8.7 million was attributable to the Segment Steel and €20.3 million to the Segment Industrial. Further €2.4 million of idle costs were incurred until 31 December 2021 and recorded as restructuring expenses.

For the plant closure at Trieben, Austria, restructuring expenses amounting to €16.3 million were recognised. These mainly related to dismantling and site clean-up costs of €3.1 million and write-down expenses on non-current assets of €12.2 million, of which €8.6 million was attributable to the Segment Steel and €3.6 million to the Segment Industrial. The recoverable amount of these assets was estimated with reference to their expected scrap value, which was deemed negligible.

Following the sale of the plants in Drogheda, Ireland and Porsgrunn in Norway in February 2021, €9.9 million expenses mainly relating to environmental risks were recognised.

In the course of the plant closure in Hagen, Germany, restructuring expenses totalling to €0.6 million were recognised and land was sold resulting in a gain of €4.1 million.

Employee restructuring expenses of €4.7 million were recognised in 2021 under the Group's 2020 reorganisation plans, which ended in early 2022.

Notes continued

7. Other income

in € million	2022	2021
Net amortisation of Oberhausen provision	2.0	7.5
Result from deconsolidation incl. recycling of OCI components to P&L	0.0	6.8
Income from the disposal of non-current assets	0.5	6.2
Miscellaneous income	2.3	8.6
Other income	**4.8**	**29.1**

The net amortisation of the Oberhausen provision includes €9.2 million (2021: €7.5 million) release for the performance against the onerous contract, offset by €7.2 million (2021: €0.0 million) arising from updated estimates. Miscellaneous income mainly includes Government subsidies accrued for certain operational expenses. In 2021, the result from deconsolidation amounting to €6.8 million relates to the disposal of RHI Normag AS, Porsgrunn, Norway and Premier Periclase Limited, Drogheda, Ireland.

8. Other expenses

in € million	2022	2021
Expenses for strategic projects	(10.1)	(4.7)
Losses from the disposal of non-current assets	(1.7)	(2.6)
Miscellaneous expenses	(11.2)	(7.2)
Other expenses	**(23.0)**	**(14.5)**

Expenses for strategic projects amounting to €10.1 million (2021: €4.7 million) mainly include legal and consulting fees related to business development activities during the year. Miscellaneous expenses mainly consist of accounts receivables and inventory write downs arising from the Ukraine/Russia conflict.

9. Expense categories

The presentation of the Consolidated Statement of Profit or Loss is based on the function of expenses. The following table shows a classification by expense category for 2022 and the previous year:

in € million	2022	2021
Changes in inventories, own work capitalised	64.3	259.0
Cost of materials	(1,365.0)	(1,205.1)
Energy Costs	(285.7)	(187.2)
Personnel costs	(627.8)	(547.6)
Depreciation and amortisation charges	(144.5)	(131.1)
Write-down expenses	0.0	(41.3)
Other income	27.1	41.2
Freight expenses	(285.3)	(222.4)
Other expenses	(356.8)	(303.1)
Total cost of sales, selling and marketing, administrative and restructuring expenses	**(2,973.7)**	**(2,337.6)**

Cost of materials includes expenses for raw materials and supplies and purchased goods of €1,317.6 million (2021: €1,166.8 million) and expenses for services received amounting to €47.4 million (2021: €38.3 million).

Amortisation charges of intangible assets are largely recognised within cost of sales. Other expenses mainly include commissions, repairs and maintenance, travel costs, external consulting and information technology costs.

Research and development costs amounted to €41.9 million (2021: €36.7 million), of which €8.6 million (2021: €8.7 million) in development cost were capitalised. Amortisation and impairment of development costs recognised within cost of sales was €3.5 million (2021: €3.5 million).

Payments associated with short-term leases of equipment and vehicles and all leases of low-value assets are recognised as an expense in the Statement of 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 2022 amount to €3.5 million (2021: €2.2 million).

Other income of €27.1 million (2021: €41.2 million) mainly includes: Mainzlar reversal of prior year non-current assets write-down of €5.3 million, see Note (6), income from research grants amounted to €4.3 million (2021: €4.0 million), profit on disposal of non-current assets, insurance reimbursements and amortization of grants related to assets.

10. Personnel costs

Personnel costs consist of the following components:

in € million	2022	2021
Wages and salaries	(478.5)	(415.2)
Pension and other post employment benefits		
Defined benefit plans	(4.8)	(5.6)
Defined contribution plans	(11.4)	(6.2)
Other expenses termination benefits	(5.2)	(7.8)
Social security contribution	(99.2)	(86.6)
Fringe benefits	(28.7)	(26.2)
Personnel expenses (without interest expenses)	**(627.8)**	**(547.6)**

Average employee numbers

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

	2022	2021
Salaried employees	6,391	5,720
Waged workers	7,119	6,564
Number of employees on annual average	**13,510**	**12,284**

124 full time equivalents of salaried employees work in the Netherlands (2021: 108 employees). Total includes average employees of newly acquired businesses from the date of acquisition.

11. Interest income

Includes interest income on cash at banks and similar income amounting to €8.0 million (2021: €2.7 million) and on securities and shares amounting to €0.3 million (2021: €0.6 million). 2021 included interest income of €10.9 million relating to the successful judicial proceeding against tax authorities in Brazil, see Note (22).

12. Foreign exchange effects and related derivatives

The net (loss)/gain on foreign exchange effects and related derivatives consists of the following items:

in € million	2022	2021
Foreign exchange losses	(10.0)	(2.0)
Foreign exchange (losses)/gains from related derivative financial instruments	(13.3)	4.8
Net (losses)/gains on foreign exchange effects and related derivatives	**(23.3)**	**2.8**

13. Other net financial expenses

Other net financial expenses consist of the following items:

in € million	2022	2021
Net interest expense relating to personnel provisions	(5.7)	(4.6)
Unwinding of discount of provisions and payables	(8.5)	(5.6)
Interest expense on non-controlling interest liabilities	(5.3)	(5.2)
Interest expense on lease liabilities	(1.3)	(1.1)
Income from the revaluation of NCI put options	4.7	1.1
Other interest and similar expenses[1)]	(14.6)	(5.8)
Other net financial expenses	**(30.7)**	**(21.2)**

1) Includes mainly costs associated with the trade receivables factoring programme of €7.2 million (2021: €5.2 million).

Notes continued

14. Taxation

Income tax

Income tax consists of the following items:

in € million	2022	2021
Current tax expense	(52.7)	(43.2)
Deferred tax (expense)/income relating to		
temporary differences	(11.9)	(12.2)
tax loss carryforwards	(39.1)	16.0
	(51.0)	3.8
Income tax	**(103.7)**	**(39.4)**

The current tax expense includes favourable net income tax adjustments for previous periods of €2.3 million (2021: €8.4 million favourable).

In recognising deferred tax assets, the Group has considered the impacts of the global economic environment in which it operates. In this context, the relevant uncertainties and potential adverse effects of economic turmoil were taken into consideration when evaluating the recoverability of deferred tax assets, including accumulated tax losses. In arriving at its conclusions, the Group's latest forecasts and assumptions, as used for goodwill impairment testing and viability statement assessment, were considered. The Group's forecasted period is four years with the fifth year being the terminal year, consistent with goodwill impairment testing. In Brazil, however, a longer time frame is used due to the annual limitation for use of losses (30% of the taxable profits of the relevant year) which requires a longer-term prediction. Information on tax contingencies is provided under Note (39).

In addition to the income taxes recognised in the Consolidated Statement of Profit or Loss, a tax expense of €29.5 million (2021: €3.1 million, income), was recognised in Other Comprehensive Income mainly relating to cash flow hedges and measurement gains and losses on employee post-employment benefits.

A reconciliation of 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 is shown below:

in € million	2022	2021
Profit before income tax	**270.5**	**289.1**
Income tax expense calculated at 25% (2021: 25%)	**67.6**	**72.3**
Different foreign tax rates	5.9	5.1
Expenses not deductible for tax purposes, non-creditable taxes	21.4	17.6
Non-taxable income and tax benefits	(25.7)	(17.4)
Tax losses and temporary differences of the financial year not recognised	2.3	7.8
Utilisation of previously unrecognised loss carryforwards and temporary differences	0.0	(4.0)
Recognition of previously unrecognised loss carryforwards and temporary differences	(3.1)	(37.9)
Change in write down of deferred tax assets	3.0	1.4
Deferred tax expense due to tax rate changes	2.7	(0.2)
Deferred tax assets derecognised	23.6	0.0
Deferred income tax relating to prior periods	5.2	2.6
Deferred income tax relating to foreign currency translation on non-monetary items	2.8	0.2
Current income tax relating to prior periods	(2.3)	(8.4)
Other	0.3	0.3
Recognised tax expense	**103.7**	**39.4**
Effective tax rate (in %)	**38.4%**	**13.6%**

In 2022, expenses not deductible for tax purposes mainly includes: transfer pricing mismatches and adjustments of €3.4 million (2021: €2.6 million); tax impact of share based payment and other employee costs of €2.9 million (2021: €1.4 million); inflation, inventory and FX adjustments and exempt income in South America of €3.0 million (2021: €0.5 million); impact of thin capitalisation rules in Argentina of €2.0 million (2021: €1.2 million); non-creditable withholding taxes in Austria of €2.4 million (2021: €1.8 million); and non-deductible subsidiary recharged expenses of €1.2 million. Furthermore, other non-deductible expenses in 2021 included debt waiver costs of €1.6 million and certain technology costs recharged from subsidiaries of €1.8 million.

In 2022, non-taxable income and tax benefits mainly includes: tax incentives in Brazil of €7.4 million (2021: €1.6 million); additional tax depreciation in Austria of €7.5 million (€2021: €7.5 million) relating to historical acquisitions; non-taxable income from the write down of shares of €2.1 million in Austria; income of foreign permanent establishments in Austria of €1.0 million (2021: €1.8 million); and inflationary adjustments in Mexico of €3.1 million (2021: €0.8 million). Furthermore, other non-taxable income in 2021 includes income from restructuring of €1.3 million in Austria.

Deferred tax assets derecognised pursuant to a tax position reassessment in 2022, of €23.6 million including income adjustments following agreement with the tax authorities on the allocation of certain group functions and includes €8.7 million adjustment in relation to an intercompany debt waiver. These tax impacts are primarily non-cash in nature and had the effect of reducing previously recognised tax losses. The cash tax impact was €1.4 million and is included within current income tax relating to prior periods.

Deferred taxes expense relating to prior periods and change in write down of deferred tax assets, arises mainly from Mexico, of €2.5 million and €2.1 million respectively, following an internal review. Deferred income tax relating to foreign currency translation of local currency tax base is due to the devaluation of the Turkish Lira against the Euro of €2.8 million. In 2021, a deferred tax asset of €37.7 million was recognised resulting from a tax depreciation for future periods and the recognition of previously unrecognised temporary differences.

The change in the tax rate in Austria from 25% to 24% in 2023 and 23% in 2024, resulted in a €2.4 million increase in the expense from deferred taxes on taxable and deductible temporary differences.

The favourable current income tax adjustment relating to prior periods arose mainly from the Netherlands of €2.2 million and an additional charge of €1.4 million following the allocation of certain group functions and responsibilities to Austria mentioned above.

Due to the recognition of the €37.7 million of deferred tax asset in 2021, the Group's effective tax rate was 13.6%. In 2022, the Group's effective tax rate was 38.3%. Drivers for the 2022 effective tax rate were mainly the non-cash (€23.6 million) and cash (€1.4 million) tax impacts as mentioned above, deferred tax adjustments from Mexico of €4.6 million and the lower income tax rate in Austria of €2.7 million. The Group's Adjusted effective tax rate, once the impacts of these one-off items are excluded reduced to around 25.3% (2021: 18.0%).

Deferred taxes

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

		31.12.2022	2022		31.12.2021	2021
in € million	Deferred tax assets	Deferred tax liabilities	(Expense)/Income	Deferred tax assets	Deferred tax liabilities	(Expense)/Income
Property, plant and equipment, intangible assets	25.1	113.3	(6.1)	41.3	109.6	17.0
Inventories	20.8	9.0	6.3	16.3	11.0	(12.5)
Trade receivables, other assets	11.0	21.1	(17.2)	25.0	5.2	(0.8)
Pensions and other personnel provisions	41.9	0.3	(4.6)	61.7	0.2	(3.2)
Other provisions	27.4	0.6	0.2	25.5	0.3	(1.4)
Trade payables, other liabilities	22.2	6.7	9.5	20.4	12.2	(11.3)
Tax loss carried forward	68.8	0.0	(39.1)	102.3	0.0	16.0
Offsetting	(89.0)	(89.0)	0.0	(90.1)	(90.1)	0.0
Deferred taxes	**128.2**	**62.0**	**(51.0)**	**202.4**	**48.4**	**3.8**

Tax losses generated by subsidiaries in the current or the prior year, recognised net deferred tax assets on temporary differences and tax loss carryforwards of €1.9 million (2021: €160.8 million). Deferred tax assets have been recognised as sufficient taxable income is expected to be generated in the future.

Tax loss carryforwards totalled €345.0 million at 31 December 2022 (2021: €477.0 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 tax loss carryforwards in China expiring within the next five years. The annual utilisation of tax loss carryforwards is limited to 75% in Austria and 30% in Brazil of their respective taxable profits. Deferred tax assets were not recognised on tax losses of €116.5 million (2021: €118.7 million).

in € million	31.12.2022	31.12.2021
Year of expiry		
2022	0.4	0.4
2023	0.2	9.3
2024	7.4	7.6
2025	1.8	1.9
2026	2.1	2.4
2027	11.9	0.2
2028 or later	0.8	0.3
Not subject to expiration	91.9	96.6
Total unrecognised tax losses	**116.5**	**118.7**

No deferred tax assets were recognised on temporary differences totalling €209.0 million (2021: €216.0 million), which are expected to reverse by 2034.

Taxable temporary differences of €1,113.7 million (2021: €814.4 million) and temporary deductible differences of €7.2 million (2021: €116.8 million) were not recognised on shares in subsidiaries as the distributions of profit or the sale of the investments are controlled by the Group.

Income tax receivables

Income tax receivables amounting to €38.7 million (2021: €35.1 million) are mainly related to income tax receivables relating to prior periods, tax prepayments and deductible withholding taxes.

Income tax liabilities

Income tax liabilities amounting to €38.3 million (2021: €38.2 million) primarily include income taxes for the current year and previous years.

15. Earnings per share

Earnings per share is calculated by dividing the profit or loss attributable to the shareholders of the Group by the weighted average number of shares outstanding during the financial year.

	2022	2021
Profit after income tax attributable to RHI Magnesita N.V. shareholders (in € million)	155.7	243.1
Weighted average number of shares for basic EPS	47,000,708	47,629,647
Effects of dilution from share options	793,302	519,546
Weighted average number of shares for dilutive EPS	47,794,010	48,149,193
Earnings per share basic (in €)	**3.31**	**5.10**
Earnings per share diluted (in €)	**3.26**	**5.05**

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 2022, there are 849,046 diluting options (2021: 554,238).

16. Dividend payments and proposed dividend

The final proposed dividend is subject to the approval of the Annual General Meeting on 24 May 2023 and was not recognised as a liability in these Consolidated Financial Statements. The final proposed dividend for 2022 will amount to €1.10 per share (2021: € 1.00 per share).

In line with the Group's dividend policy, the Board paid out an interim dividend in September 2022 of €0.50 per share for the first half of 2022 amounting to €24.0 million. The total dividend for 2022, which includes the proposed final dividend, yet to be approved, amounts to €1.60 per share (2021: €1.50 per share).

Based on a resolution adopted by the Annual General Meeting of RHI Magnesita N.V. on 25 May 2022, the final dividend for 2021 amounted to €1.00 per share and was paid out in June 2022, amounting to €47.0 million. The total dividend for 2021 amounted to €1.50 per share.

17. Goodwill

in € million	2022	2021
Carrying amount at beginning of the year	114.4	110.8
Newly acquired businesses	20.6	0.0
Currency translation	1.9	3.6
Carrying amount at year-end	**136.9**	**114.4**

Impairment of goodwill

Goodwill is tested for impairment at least annually based on the CGU to which it is allocated. The Group's goodwill is primarily within the Steel segment and assigned to the CGU as identified below.

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 economic developments, including energy and raw material prices. The Group is subject to environmental and other laws and regulations and has established environmental policies and procedures aimed at compliance with these laws. Impairment testing incorporated considerations for increased energy and raw material prices in its Budget and the Long-Term Plan and estimates the total increase in investments in research and development costs at approximately €36.0 million. Current technology used by the customer industries requiring advanced heat-resistant materials for their production depend on refractory materials and in our view will remain in use in the observable future.

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; 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 7.9% and 10.6% in 2022 (2021: 7.7% and 9.8%).

The net cash flows used for impairment testing are based on the strategic business and financial planning model of the Group including the 2023 budget and the Long-Term Plan, as approved by the Board. The cash flows are 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 between the current and possible degree of asset capacity and utilisation.

The forecasts include cash flows from future maintenance investments while expansion investments are included 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 discounted cash flow model; this applies in particular to expansion investments that have been decided on but that have not begun. To forecast the CGUs' cash flows, management predicts the growth rate using external sources for the development of the customer's industries; regional growth rates of the steel production and output of the non-steel clients in combination with the development of the specific refractory consumption including technological improvements.

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

A summary of the key assumptions relating to goodwill testing is reflected in the table below:

			2022			2021
	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	10.8%	0.9%	107.2	8.4%	0.9%	83.5
Steel Division – Flow Control	11.1%	0.9%	28.5	8.7%	0.9%	29.6

As a sensitivity, the effect of an adverse change of 10% in the estimated discount rates at 31 December 2022 or an adverse change of 50% in the perpetual growth rate would not result in an impairment of goodwill.

18. Other intangible assets

2022

in € million	Mining rights	Customer relationship	Internally generated intangible assets	Other intangible assets	Total
Cost at 31.12.2021	139.3	99.2	70.9	145.4	454.8
Currency translation	12.6	4.4	0.1	1.0	18.1
Additions	0.0	0.0	8.7	7.2	15.9
Additions initial consolidation	0.0	28.5	0.0	0.0	28.5
Retirements and disposals	0.0	0.0	(0.8)	(0.7)	(1.5)
Reclassifications	0.0	0.0	(0.4)	3.9	3.5
Cost at 31.12.2022	**151.9**	**132.1**	**78.5**	**156.8**	**519.3**
Accumulated amortisation 31.12.2021	11.1	35.3	44.8	81.0	172.2
Currency translation	0.9	0.7	0.0	0.3	1.9
Amortisation charges	2.5	9.4	4.0	13.0	28.9
Retirements and disposals	0.0	0.0	0.0	(0.7)	(0.7)
Reclassifications	0.0	0.0	0.0	0.4	0.4
Accumulated amortisation 31.12.2022	**14.5**	**45.4**	**48.8**	**94.0**	**202.7**
Carrying amounts at 31.12.2022	**137.4**	**86.7**	**29.7**	**62.8**	**316.6**

2021

in € million	Mining rights	Customer relationship	Internally generated intangible assets	Other intangible assets	Total
Cost at 31.12.2020	133.1	95.1	62.0	121.3	411.5
Currency translation	6.2	4.2	0.2	4.9	15.5
Additions	0.0	0.0	8.8	9.9	18.7
Retirements and disposals	0.0	(0.1)	(0.1)	(4.1)	(4.3)
Reclassifications	0.0	0.0	0.0	13.4	13.4
Cost at 31.12.2021	**139.3**	**99.2**	**70.9**	**145.4**	**454.8**
Accumulated amortisation 31.12.2020	8.5	27.9	40.7	68.7	145.8
Currency translation	0.5	1.6	0.2	2.3	4.6
Amortisation charges	2.1	5.8	4.0	10.5	22.4
Impairment charges	0.0	0.0	0.0	3.7	3.7
Retirements and disposals	0.0	0.0	(0.1)	(3.8)	(3.9)
Reclassifications	0.0	0.0	0.0	(0.4)	(0.4)
Accumulated amortisation 31.12.2021	**11.1**	**35.3**	**44.8**	**81.0**	**172.2**
Carrying amounts at 31.12.2021	**128.2**	**63.9**	**26.1**	**64.4**	**282.6**

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

The customer relations from the former Magnesita Group have a carrying amount of €61.1 million (2021: €63.6 million) and a remaining useful life between six to ten 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 €20.9 million (2021: €20.0 million) and a remaining useful life between 15 to 55 years.

There are no restrictions on the sale of intangible assets.

19. Property, plant and equipment

2022

in € million	Real estate, land and buildings	Technical equipment, machinery	Other plant, furniture and fixtures	Prepayments made and plant under construction[1]	Right-of-use assets	Total
Cost at 31.12.2021	670.3	1,143.6	379.4	209.7	87.1	2,490.1
Currency translation	11.0	13.2	4.9	11.2	2.6	42.9
Additions [2]	8.2	14.9	15.1	122.6	20.7	181.5
Additions initial consolidation	6.0	2.9	0.6	0.3	7.0	16.8
Retirements and disposals	(10.8)	(85.0)	(34.5)	(0.5)	(5.0)	(135.8)
Reclassifications	27.5	53.5	27.2	(111.7)	0.0	(3.5)
Cost at 31.12.2022	**712.2**	**1,143.1**	**392.7**	**231.6**	**112.4**	**2,592.0**
Accumulated depreciation 31.12.2021	311.5	793.4	260.3	1.5	33.7	1,400.4
Currency translation	0.3	5.7	1.1	0.1	1.2	8.4
Depreciation charges	15.1	54.1	26.2	0.0	20.2	115.6
Reversal of impairment charges	(1.5)	(3.0)	(0.9)	(0.3)	(0.3)	(6.0)
Retirements and disposals	(8.0)	(82.7)	(34.2)	0.0	(4.8)	(129.7)
Reclassifications	0.0	0.0	(0.4)	0.0	0.0	(0.4)
Accumulated depreciation 31.12.2022	**317.4**	**767.5**	**252.1**	**1.3**	**50.0**	**1,388.3**
Carrying amounts at 31.12.2022	**394.8**	**375.6**	**140.6**	**230.3**	**62.4**	**1,203.7**

1) Prepayments made and plant under construction include €10.2 million relating to intangible assets. €3.5 million was transferred to intangibles assets during the year.
2) Including €1.5 million capitalised borrowing costs within Additions.

2021

in € million	Real estate, land and buildings	Technical equipment, machinery	Other plant, furniture and fixtures	Prepayments made and plant under construction[1]	Right-of-use assets	Total
Cost at 31.12.2020	598.6	1,039.4	330.9	164.9	76.8	2,210.6
Currency translation	18.5	32.7	8.3	4.0	2.5	66.0
Additions	25.3	47.5	17.9	156.8	13.4	260.9
Retirements and disposals	(4.1)	(18.5)	(5.4)	0.0	(5.6)	(33.6)
Reclassifications	32.0	42.5	27.7	(116.0)	0.0	(13.8)
Cost at 31.12.2021	**670.3**	**1,143.6**	**379.4**	**209.7**	**87.1**	**2,490.1**
Accumulated depreciation 31.12.2020	277.1	720.5	230.9	1.1	22.4	1,252.0
Currency translation	4.8	19.2	5.8	0.0	0.7	30.5
Depreciation charges	12.8	56.3	23.4	0.0	16.0	108.5
Impairment charges	18.3	14.6	4.3	0.4	0.0	37.6
Retirements and disposals	(1.2)	(16.7)	(4.9)	0.0	(5.4)	(28.2)
Reclassifications	(0.3)	(0.5)	0.8	0.0	0.0	0.0
Accumulated depreciation 31.12.2021	**311.5**	**793.4**	**260.3**	**1.5**	**33.7**	**1,400.4**
Carrying amounts at 31.12.2021	**358.8**	**350.2**	**119.1**	**208.2**	**53.4**	**1,089.7**

1) Prepayments made and plant under construction include €6.0 million relating to intangible assets.

Prepayments made and plant under construction includes €212.0 million (2021: €179.2 million) mainly relating to the expansion of a production plant in Austria and a magnesite plant in Brazil during 2022. The spend in 2021 mainly related to the expansion of a magnesite plant in Brazil.

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 2022:

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 31.12.2021	47.8	31.9	7.4	87.1
Currency translation	1.0	1.5	0.1	2.6
Additions	16.7	1.2	2.8	20.7
Additions initial consolidation	5.1	0.1	1.8	7.0
Retirements and disposals	(1.8)	(1.7)	(1.5)	(5.0)
Cost at 31.12.2022	**68.8**	**33.0**	**10.6**	**112.4**
Accumulated depreciation 31.12.2021	15.4	14.4	3.9	33.7
Currency translation	0.4	0.6	0.2	1.2
Depreciation charges	11.2	6.1	2.9	20.2
Reversal of impairment charges	0.0	(0.2)	(0.1)	(0.3)
Retirements and disposals	(1.7)	(1.7)	(1.4)	(4.8)
Accumulated depreciation 31.12.2022	**25.3**	**19.2**	**5.5**	**50.0**
Carrying amounts at 31.12.2022	**43.5**	**13.8**	**5.1**	**62.4**

The Right-of-use assets per category developed as follows as of 31 December 2021:

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 31.12.2020	40.4	30.7	5.7	76.8
Currency translation	1.0	1.3	0.2	2.5
Additions	8.7	1.6	3.1	13.4
Retirements and disposals	(2.3)	(1.7)	(1.6)	(5.6)
Cost at 31.12.2021	**47.8**	**31.9**	**7.4**	**87.1**
Accumulated depreciation 31.12.2020	9.3	9.8	3.3	22.4
Currency translation	0.2	0.4	0.1	0.7
Depreciation charges	8.2	5.8	2.0	16.0
Retirements and disposals	(2.3)	(1.6)	(1.5)	(5.4)
Accumulated depreciation 31.12.2021	**15.4**	**14.4**	**3.9**	**33.7**
Carrying amounts at 31.12.2021	**32.4**	**17.5**	**3.5**	**53.4**

The average lease term is eight years for land and buildings, six years for technical equipment and three years for other equipment, furniture and fixtures. Impacts resulting from extension and termination options, as well as residual value guarantees are immaterial. Detail on lease liabilities is in Note (28).

20. Other non-current assets

in € million	31.12.2022	31.12.2021
Tax receivables	18.7	27.1
Other non-current assets	21.3	14.1
Other non-current assets	**40.0**	**41.2**

Tax receivables relate to input tax credits, which are expected to be utilised in the medium term. Other non-current assets mainly include deferred mine stripping costs.

21. Inventories

in € million	31.12.2022	31.12.2021
Raw materials and supplies	303.3	300.2
Work in progress	206.7	151.5
Finished products and goods	526.3	512.4
Prepayments made	12.8	12.4
Inventories	**1,049.1**	**976.5**

Inventories include €8.4 million (2021: €6.9 million) carried at net realisable value. Net write-down expenses amount to €8.0 million (2021: €3.4 million).

There are no restrictions on the disposal of inventories.

22. Trade and other current receivables

in € million	31.12.2022	31.12.2021
Trade receivables	433.4	403.7
Contract assets	3.5	3.6
Other tax receivables	106.4	113.7
Dividend receivables	0.0	8.7
Prepaid expenses	5.9	3.9
Other current receivables	29.7	34.6
Trade and other current receivables	**578.9**	**568.2**
thereof financial assets	433.9	414.4
thereof non-financial assets	145.0	153.8

The Group enters into factoring agreements and sells trade receivables to financial institutions. Trade receivables sold at the end of the year was €245.1 million (2021: €178.1 million). These have been derecognised as substantially all risks and rewards as well as control have been transferred. Payments received from customers following the sale are recognised in current borrowings until repaid to the factorer.

Other tax receivables include VAT, receivables from energy tax refunds, research, education and apprentice subsidies. Other tax receivables at 31.12.2021 included €12.1 million receivable from the tax authorities in Brazil following a successful judicial proceeding relating to revenue-based taxes.

Other current receivables mainly relate to advances for insurance, IT services as well as custom and import-related services and costs.

23. Cash and cash equivalents

in € million	31.12.2022	31.12.2021
Cash at banks and in hand	471.8	565.4
Money market funds	48.9	15.4
Cash and cash equivalents	**520.7**	**580.8**

Cash and cash equivalents include restricted cash totalling €23.2 million at 31 December 2022 (2021: €5.7 million). Restricted cash is mainly related to cash and cash equivalents held in Argentina, which has restrictive foreign exchange control regulations and performance guarantees. In addition, €2.0 million (2021: €2.0 million) is held in escrow in Austria and not available for use by the Group. €28.5 million in cash and cash equivalents (2021: €17.3 million) are accounted for by subsidiaries with non-controlling interests or subsidiaries with put options to acquire the non-controlling shareholder.

24. Share capital

At 31 December 2022, the authorised share capital of RHI Magnesita N.V. amounts to €100,000,000 divided into 100,000,000 ordinary shares, of which 47,017,695 (2021: 46,999,019) fully paid-in ordinary shares are issued and outstanding. In addition, there are 2,460,010 (2021: 2,478,686) treasury shares held by the company. 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 shares with special control rights.

25. Group reserves

Treasury shares

At 31 December 2022, RHI Magnesita treasury shares amount to 2,460,010 (2021: 2,478,686).

Additional paid-in capital

At 31 December 2022, as well as at 31 December 2021, 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 hedge reserves 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.

Reserves for 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 financial instrument is designated as the hedging instrument in net investment hedge in a foreign operation.

26. Non-controlling interests

Non-controlling interests in RHI Magnesita India Limited ("RHIM India").

In the course of the merger of the two Indian subsidiaries RHI CLASIL Private Limited and RHI India Private Limited in June 2021, into RHI Orient Refractories Limited and renamed to RHI Magnesita India Limited the Group shareholding changed from 66.5% to 70.2% and the share of the non-controlling interests decreased from 33.5% to 29.8%. RHIM India, based in New Delhi, India is a listed company on the BSE Limited, Mumbai, India and NSE Limited, Mumbai, India. The company is included in the Steel segment. The current reporting period and the previous reporting period are not fully comparable as a consequence of the merger in 2021. The carrying amount of the non-controlling interests is determined as follows:

in € million	31.12.2022	31.12.2021
Non-current assets	50.4	51.1
Current assets	168.3	153.9
Non-current liabilities	(2.5)	(2.8)
Current liabilities	(71.7)	(80.9)
Net assets before intragroup eliminations	**144.5**	**121.3**
Intragroup eliminations	0.1	(0.5)
Net assets	**144.6**	**120.8**
Percentage of non-controlling interests	29.8%	29.8%
Carrying amount of non-controlling interests	**43.1**	**36.0**

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

in € million	2022	2021
Revenue	294.6	167.4
Operating expenses, net finance costs and income tax	(257.4)	(146.9)
Profit after income tax before intragroup eliminations	**37.2**	**20.5**
Intragroup eliminations	0.6	1.2
Profit after income tax	**37.8**	**21.7**
thereof attributable to non-controlling interests of RHIM India	11.3	6.6

in € million	2022	2021
Profit after income tax	37.8	21.7
Other comprehensive (expense)/income	(8.2)	8.0
Total comprehensive income	**29.6**	**29.7**
thereof attributable to non-controlling interests of RHIM India	8.8	8.7

The following table shows the summarised Statement of Cash Flows of RHIM India:

in € million	2022	2021
Net cash flow from operating activities	21.5	(1.4)
Net cash flow from investing activities	(6.9)	(5.2)
Net cash flow from financing activities	(6.4)	(3.6)
Total cash flow	**8.2**	**(10.2)**

Net cash flow from financing activities includes dividend payments to non-controlling interests amounting to €1.5 million (2021: €1.4 million).

Non-Controlling interest includes 10.6% in SÖRMAŞ, which was acquired on 1 September 2022, with a carrying amount of the non-controlling interest of €3.8 million at 31 December 2022. Further information relating to this acquisition is provided under Note (42). In line with the Group's accounting policy, the carrying amount of non-controlling interest is reduced to nil and replaced with a financial liability where the Group has provided a written put option (usually together with a call option) to acquire the shares not controlled by the Group. The Group has in place a written put option with the 49.0% non-controlling interest in RHI Magnesita (Chongqing) Refractory Materials Co., Ltd., China, with the carrying value of the liability at 31 December 2022 of €21.3 million. The Group also has a written put option with the 49.0% non-controlling interest in Mireco, with the carrying value of the liability at 31 December 2022 of €8.4 million. Further detail on the written put options is provided under Note (28).

27. Borrowings

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

in € million	Total 31.12.2022	current	non-current
Syndicated & Term Loan	942.4	130.7	811.7
Bonded loans ("Schuldscheindarlehen")	585.0	0.0	585.0
Other credit lines and other loans	84.6	84.6	0.0
Total liabilities to financial institutions	**1,612.0**	**215.3**	**1,396.7**
Other financial liabilities	9.0	0.1	8.9
Capitalised transaction costs	(1.0)	(0.3)	(0.7)
Borrowings	**1,620.0**	**215.1**	**1,404.9**

in € million	Total 31.12.2021	current	non-current
Syndicated & Term Loan	791.5	58.3	733.2
Bonded loans ("Schuldscheindarlehen")	650.0	65.0	585.0
Other credit lines and other loans	88.2	88.2	0.0
Total liabilities to financial institutions	**1,529.7**	**211.5**	**1,318.2**
Other financial liabilities	7.4	3.2	4.2
Capitalised transaction costs	(2.4)	(1.0)	(1.4)
Borrowings	**1,534.7**	**213.7**	**1,321.0**

On 5 May 2022, the Group amended and extended its €305.0 million OeKB Term Loan maturing in June 2023, of which €260.0 million was outstanding as at 31 December 2021, increasing the total loan amount outstanding to €350.0 million and extending the final maturity to May 2027. The margin payable on the OeKB Term Loan will be adjusted based on the Group's EcoVadis ESG rating performance and the variable interest rate is based on the EURIBOR. The interest payments are due on a quarterly basis.

On 29 July 2022, the Group refinanced its existing $200 million USD Term Loan maturing in August 2023 with a new €250 million EUR Term Loan with a maturity in July 2027. The margin payable on the EUR Term Loan is adjusted based on the Group's EcoVadis ESG rating performance and the variable interest rate is based on the EURIBOR. Interest payments are due on a quarterly basis.

In November 2022, the Group exercised its third and last extension option and thereby extended the maturity of the committed RCF (€600.0 million) by one year to 2028.

In December 2022, the Group entered into an INR 7.0 billion (around €78.8 million) bilateral term loan to finance the announced acquisition of Hi Tech at its Indian subsidiary, see Note (44) for further information.

Net debt excluding lease liabilities/Adjusted EBITDA is the key financial covenant of the loan agreements and is shown under Note (38). Compliance with the covenants is measured on a semi-annual basis. In line with the Covenant requirements, net debt excluding lease liabilities to Adjusted EBITDA cannot exceed 3.5x. Breach of covenants leads to an anticipated maturity of loans. During 2022 and 2021, the Group met all covenant requirements.

Considering interest swaps, 73% (2021: 70%) of the liabilities to financial institutions carry fixed interest and 27% (2021: 30%) carry variable interest.

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

Interest terms fixed until	Effective annual interest rate	Currency	31.12.2022 Carrying amount in € million	Interest terms fixed until	Effective annual interest rate	Currency	31.12.2021 Carrying amount in € million
2023	EURIBOR + margin	EUR	372.3	2022	EURIBOR + margin	EUR	403.3
	Variable rate + margin	EUR	34.0		1.87%	EUR	65.0
	Various - Variable rate	Var.	27.4				
	0.25%	EUR	115.0		Variable rate + margin	EUR	34.0
2024	3.10%	EUR	35.0		Various - Variable rate	Var.	12.5
2025	0.59%	EUR	177.0	2023	0.79%	EUR	374.7
2027	2.72%	EUR	751.8		4.09%	USD	176.8
2028	0.92%	EUR	86.5	2024	3.10%	EUR	35.0
2029	1.52%	EUR	8.0	2025	0.59%	EUR	177.0
2031	1.28%	EUR	5.0	2027	1.00%	EUR	152.0
				2028	0.92%	EUR	86.5
				2029	1.52%	EUR	8.0
				2031	1.28%	EUR	5.0
			1,612.0				**1,529.8**

The table above shows how long the interest rates are fixed, rather than the maturity of the underlying instruments.

28. Other financial liabilities

Other financial liabilities include the negative fair value of derivative financial instruments as well as lease liabilities and fixed-term and puttable non-controlling interests payable in Group companies. Additional explanation on derivative financial instruments is provided under Note (36).

			31.12.2022			31.12.2021
in € million	Current	Non-current	Total	Current	Non-current	Total
Forward exchange contracts	0.6	0.0	0.6	0.0	0.0	0.0
Interest rate swaps	0.0	0.0	0.0	0.0	9.6	9.6
Commodity swaps	0.9	0.2	1.1	0.0	0.0	0.0
Derivatives in open orders	9.5	0.0	9.5	0.1	0.0	0.1
Derivative financial liabilities	**11.0**	**0.2**	**11.2**	**0.1**	**9.6**	**9.7**
Lease liabilities	17.5	46.4	63.9	16.1	39.4	55.5
Fixed-term or puttable non-controlling interests	21.6	46.2	67.8	3.0	57.0	60.0
Other financial liabilities	**50.1**	**92.8**	**142.9**	**19.2**	**106.0**	**125.2**

Fixed terms or puttable non-controlling interest reflects amounts payable to non-controlling interest where the Group has entered into agreements to purchase the shares not already controlled. The purchase agreements generally provide for a call and written option at a fixed price or based on earnings multiple, such as EBITDA and capped subject to contractual limits, if any, to be exercised in the future. The carrying amount represents the discounted value of the expected settlement for the following non-controlling interest:

in € million		31.12.2022	31.12.2021
Horn & Co. Minerals Recovery GmbH & Co.KG	49.00%	8.4	0.0
RHI Magnesita (Chongqing) Refractory Materials Co., Ltd.	49.00%	21.3	23.5
Liaoning RHI Jinding Magnesia Co., Ltd.	16.67%	26.4	23.5
RHI Refractories Liaoning Co., Ltd.	34.00%	11.7	13.0
Other financial liabilities		**67.8**	**60.0**

During the period, €5.3 million (2021: €5.2 million) was recognised as an interest expense on the liability and €4.7 million income (2021: €1.1 million income) was recognised within other net financial expenses as an adjustment to the amount payable where the written put option price is based on earnings multiple or is affected by a change in the discount rate. See Note (13)

29. Provisions for pensions

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

in € million	31.12.2022	31.12.2021
Present value of pension obligations	395.5	495.0
Fair value of plan assets	(186.6)	(255.5)
Deficit of funded plans	**208.9**	**239.5**
Asset ceiling	3.8	28.6
Net liability from pension obligations	**212.7**	**268.1**
Overfunded pension plans	2.0	0.9
Other pension plans	214.7	269.0

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

in € million	31.12.2022	31.12.2021
Active beneficiaries	64.2	88.4
Vested terminated beneficiaries	43.4	68.4
Retirees	287.9	338.2
Present value of pension obligations	**395.5**	**495.0**

The pension obligations are measured using the following actuarial assumptions for the key countries in which the Group operates:

in %	31.12.2022	31.12.2021
Interest rate		
Austria and Germany	3.8%	0.9%
Brazil	10.5%	8.4%
United Kingdom	4.8%	1.8%
USA	5.0%	2.8%
Future salary increase		
Austria	4.5%	3.3%
Germany	2.5%	2.5%
Brazil	4.3%	3.0%
United Kingdom	3.3%	3.5%
USA	3.3%	3.3%
Future pension increase		

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 Eurozone countries 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 €81.2 million (2021: €100.5 million) of the present value of pension obligations and for €18.1 million (2021: €20.6 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 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 €107.7 million (2021: €146.3 million) of the present value of pension obligations and for €0.7 million (2021: €0.7 million) of the 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 €71.6 million (2021: €86.8 million) of the present value of pension obligations and for €63.3 million (2021: €79.0 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 2021 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 €39.0 million (2021: €67.1 million) of the present value of pension obligations and holds €41.2 million (2021: €95.7 million) of assets, although only €39.0 million (2021: €67.1 million) of the plan assets are reflected on the balance sheet due to the application of International Financial Reporting Interpretations Committee 14 (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. During 2022, the Board of Trustees agreed to a buy-in of the defined benefit obligation with a third party insurer in the United Kingdom. In terms of the buy-in, the insurer assumed the obligations relating to the plan from July 2022 while the plan assets were liquidated and transferred to the Insurer at a value of around €61.7 million. Until the defined benefit scheme is wound up (the buy-out), the Group will continue to recognise the pension obligation and the value of the insurance policy as a plan asset equal to the pension obligation. The surplus plan assets of €2.2 million, at 31 December 2022 are not recognised due to the application of the IFRIC 14 and the asset ceiling requirements. It is expected that the plan will be wound up during 2023 with the remaining surplus, net of adjustments, tax payments and other minor expenses will be refunded to the Group. The decrease in the value of the plan assets between 31 December 2021 and its liquidation arose mainly from adverse market movements in early 2022.

The pension liabilities of the Brazilian group company Magnesita Refratários S.A. account for €49.9 million (2021: €44.1 million) of the present value of pension obligations and for €29.1 million (2021: €24.6 million) of the plan assets. The pension plan qualifies as an optional benefit plan. Employees are entitled to contribute to the plan, with the company contributing 1.5 times this value. The agreed benefits include pensions, invalidity benefits and benefits for surviving dependents. Commitments in the form of company or individual agreements depend on the length of service and salary at the time of retirement. For the majority of commitments, the amount of the company pension obligation is limited to 75% of the final remuneration. At retirement, the employee may choose to receive up to 25% of his/her amount at once or receive it on a pro-rata base with different options of monthly quotes.

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

in € million	2022	2021
Net liability from pension obligations at beginning of year	**268.1**	**303.6**
Currency translation	4.5	2.5
Pension cost	8.8	8.5
Remeasurement (gains)/losses	(48.1)	(26.0)
Benefits paid	(17.3)	(17.6)
Employers' contributions to external funds	(3.3)	(2.9)
Net liability from pension obligations at year-end	**212.7**	**268.1**

The present value of pension obligations developed as follows:

in € million	2022	2021
Present value of pension obligations at beginning of year	**495.0**	**523.3**
Currency translation	11.7	15.4
Current service cost	3.4	4.2
Interest cost	11.8	8.9
Remeasurement (gains)/losses		
from changes in demographic assumptions	0.0	(3.7)
from changes in financial assumptions	(107.5)	(24.1)
due to experience adjustments	13.5	6.0
Benefits paid	(33.0)	(34.4)
Employee contributions to external funds	0.6	0.5
Disposal due to settlement	0.0	(1.1)
Present value of pension obligations at year-end	**395.5**	**495.0**

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

in € million	2022	2021
Fair value of plan assets at beginning of year	**255.5**	**240.2**
Currency translation	6.2	14.5
Interest income	6.8	5.1
Administrative costs (paid from plan assets)	(0.4)	(0.2)
(Loss)/Income on plan assets less interest income	(69.7)	10.4
Benefits paid	(15.7)	(16.8)
Employers' contributions to external funds	3.3	2.9
Employee contributions to external funds	0.6	0.5
Disposal due to settlement	0.0	(1.1)
Fair value of plan assets at year-end	**186.6**	**255.5**

The changes in the asset ceiling are shown below:

in € million	2022	2021
Asset ceiling at beginning of year	**28.6**	**20.4**
Currency translation	(0.9)	1.6
Interest expense	0.0	0.4
(Losses)/gains from changes in asset ceiling less interest expense	(23.9)	6.2
Asset ceiling at year-end	**3.8**	**28.6**

At 31 December 2022, the weighted average duration of pension obligations amounts to 10.5 years (2021: 12 years).

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

in € million	2022	2021
Current service cost	3.4	4.2
Interest cost	11.8	8.9
Interest income	(6.8)	(5.1)
Interest expense from asset ceiling	0.0	0.4
Administrative costs (paid from plan assets)	0.4	0.2
Pension expense recognised in profit or loss	**8.8**	**8.6**

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

in € million	2022	2021
Accumulated remeasurement losses at beginning of year	**143.6**	**170.0**
Remeasurement gains on present value of pension obligations	(94.0)	(21.8)
Losses/(gains) on plan assets less interest income	69.7	(10.4)
(Losses)/gains from changes in asset ceiling less interest expense	(23.9)	6.2
Reclassification to other reserves	0.0	(0.4)
Accumulated remeasurement losses at year-end	**95.4**	**143.6**

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

			31.12.2022			31.12.2021
in € million	Active market	No active market	Total	Active market	No active market	Total
Insurances	0.0	82.1	82.1	0.0	43.8	43.8
Equity instruments	34.4	0.0	34.4	48.8	0.0	48.8
Debt instruments	22.0	2.5	24.5	97.0	3.3	100.3
Cash and cash equivalents	11.8	0.7	12.5	11.2	0.1	11.3
Other assets	32.0	1.1	33.1	49.9	1.4	51.3
Fair value of plan assets	**100.2**	**86.4**	**186.6**	**206.9**	**48.6**	**255.5**

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 or assets utilised by the 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 2023, RHI Magnesita expects employer contributions to external plan assets to amount to €3.1 million and direct payments to entitled beneficiaries to €16.2 million. In the previous year, employer contributions of €3.0 million and direct pension payments of €19.2 million had been expected for the financial year 2022.

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).

			31.12.2022		31.12.2021
in € million	Change of assumption in percentage points or years	Pension plans	Termination benefits	Pension plans	Termination benefits
Present value of the obligations		395.5	31.5	495.0	44.1
Interest rate	+0.25	(9.7)	(1.4)	(14.8)	(1.4)
	(0.25)	10.1	0.5	15.6	1.5
Salary increase	+0.25	0.3	0.5	0.7	1.4
	(0.25)	(0.3)	(1.4)	(0.7)	(1.4)
Pension increase	+0.25	8.0	–	11.3	–
	(0.25)	(7.4)	–	(10.9)	–
Life expectancy	+1 year	9.1	–	19.8	–
	(1) year	(8.1)	–	(20.6)	–

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.

30. Other personnel provisions

in € million	31.12.2022	31.12.2021
Termination benefits	31.5	44.1
Service anniversary bonuses	17.9	21.4
Semi-retirements	2.3	3.2
Other personnel provisions	**51.7**	**68.7**

Provisions for termination benefits

The provision for termination benefits relates mainly to employees that joined an Austrian company before 31 December 2022 and are subject to a one-off lump-sum termination benefit under Austrian legislation. This is regarded as a post-employment benefit and accounted for consistently with pensions benefits described above.

Provision for the Austrian termination benefits, which accounts for over 90% of the balance (2021: 94%) were based on the following measurement assumptions:

in %	31.12.2022	31.12.2021
Interest rate	3.8%	0.9%
Future salary increase	3.9%	3.5%

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 € million	2022	2021
Provisions for termination benefits at beginning of year	**44.1**	**46.4**
Currency translation	0.1	0.0
Additions initial consolidation	0.4	0.0
Current service cost	1.0	1.2
Interest cost	0.5	0.4
Remeasurement (gains)/losses		
from changes in financial assumptions	(11.0)	(1.8)
from changes in demographic assumptions	0.0	1.9
due to experience adjustments	1.1	0.5
Benefits paid	(4.7)	(4.8)
Loss / (Gain) on settlement	0.0	0.3
Provisions for termination benefits at year-end	**31.5**	**44.1**

Payments for termination benefits are expected to amount to €1.3 million in the year 2023. In the previous year, the payments for termination benefits expected for 2022 amounted to €2.3million.

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

in € million	2022	2021
Accumulated remeasurement losses at beginning of year	**27.7**	**27.6**
Remeasurement (gains)/losses	(9.9)	0.6
Reclassification to other reserves	0.0	(0.5)
Accumulated remeasurement losses at year-end	**17.8**	**27.7**

At 31 December 2022 the duration of Austrian termination benefit obligations amounts to 12.6 years (2021: 14 years).

Provisions for service anniversary bonuses

The measurement of provisions for service anniversary bonuses relating to employees in Austria and Germany is based on an interest rate of 3.8% (2021: 0.8%) and considers salary increases of 5.6% (2021: 4.6%) in Austria and 2.5% in Germany (2021: 2.5%).

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	31.12.2022	31.12.2021
Present value of semi-retirement obligations	5.8	7.6
Fair value of plan assets	(3.4)	(4.4)
Provisions for semi-retirement obligations	**2.4**	**3.2**

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

31. Other Provisions

The development of provisions is shown in the table below:

in € million	Onerous/unfavourable contracts	Labour and civil contingencies	Demolition/disposal costs, environmental damages	Restructuring costs	Other	Total
31.12.2021	**53.9**	**7.1**	**19.5**	**33.5**	**4.6**	**118.6**
Currency translation	5.8	0.9	0.5	0.0	(0.1)	7.1
Reversals	(2.6)	(2.4)	(0.4)	(10.5)	0.0	(15.9)
Additions	9.4	5.8	4.3	3.5	1.4	24.4
Additions interest	6.0	1.0	1.4	0.0	0.1	8.5
Use	(10.2)	(5.2)	(2.5)	(14.2)	(1.7)	(33.8)
Reclassifications	0.0	1.2	0.4	(0.3)	(0.1)	1.2
31.12.2022	**62.3**	**8.4**	**23.2**	**12.0**	**4.2**	**110.1**
non-current	49.9	8.4	21.7	0.0	0.0	80.0
current	12.4	0.0	1.5	12.0	4.2	30.1

In November 2017, the Group sold a plant located in Oberhausen, Germany, in order to satisfy the conditions imposed by the European Commission in their approval of the Acquisition of Control of Magnesita. Under the terms, the Group remains obligated to provide raw materials at cost and recognised a provision for unfavourable contracts as part of the purchase price allocation to reflect the foregone profit margin and is reflected within Onerous/unfavourable contracts. The non-current portion of this contract obligation amounts to €49.9 million as of 31.12.2022 (2021: €43.1 million) and the current portion to €10.7 million (2021: €8.0 million). The unwinding of the discount led to a credit of €6.0 million in 2022 (2021: €7.5 million). In addition, current provisions for other unfavourable contracts amount to €1.7 million (2021: €2.9 million).

The provision for labour and civil contingencies primarily comprises labour litigation amounting to €3.6 million (2021: €4.9 million) arising mainly in Brazil.

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 €4.7 million (2021: €2.9 million) and various sites in the USA amounting to €7.2 million (2021: €6.0 million).

Provisions for restructuring costs amounting to €12.0 million at 31 December 2022 (2021: €33.5 million) primarily consist of estimated benefit obligations to employees due to termination of employment and dismantling costs. €6.2 million (2021: €14.9 million) relate to the remaining redundancy costs at Mainzlar, Germany for employees not subject to the restart of operations, €3.5 million (2021: €4.5 million) to the plant closure in Trieben, Austria, €0.8 million (2021: €4.6 million) to the plant closure in Kruft, Germany. Following the decision to restart operations at Mainzlar, €4.5 million of severance provisions were reversed and €3.2 million was paid while €1.0 million in plant closure costs were reversed.

Other consists mainly of provisions for claims arising from warranties and other similar obligations from the sale of refractory products.

32. Trade payables and other current liabilities

in € million	31.12.2022	31.12.2021
Trade payables	506.5	649.2
Contract liabilities	61.8	57.9
Liabilities to employees	97.2	80.9
Taxes other than income tax	35.0	29.3
Capital expenditure payable	43.1	24.3
Payables from commissions	7.7	7.3
Other current liabilities	29.0	34.3
Trade payables and other current liabilities	**780.3**	**883.2**
thereof financial liabilities	566.4	692.9
thereof non-financial liabilities	213.9	190.3

Trade payables include an amount of €68.8 million (2021: €142.0 million) for raw material purchases subject to supply chain finance arrangements.

Contract liabilities mainly consist of prepayments received on orders. In 2022 €57.9 million revenue was recognised related to contract liabilities recognised as of 31 December 2021.

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.

33. Cash generated from/(used in) operations

in € million	2022	2021
Profit after income tax	166.8	249.7
Adjustments for		
income tax	103.7	39.4
depreciation	115.6	108.7
amortisation	28.9	22.4
(write-up)/write-down of property, plant and equipment and intangible assets	(6.0)	41.3
income from the reversal of investment subsidies	(0.7)	(0.9)
impairment losses/loss from sale/(write-ups) on securities	1.5	(0.2)
losses/(gains) from the disposal of property, plant and equipment	2.4	(6.3)
losses/(gains) from the disposal of subsidiaries	1.1	(5.2)
net interest expense and derivatives	47.3	24.4
result from joint ventures and associates	(0.2)	(100.2)
other non-cash changes	26.1	(12.7)
Changes in working capital		
inventories	(30.0)	(474.3)
trade receivables	(12.5)	(132.6)
contract assets	0.0	(1.6)
trade payables	(156.8)	314.8
contract liabilities	4.5	10.7
Changes in other assets and liabilities		
other receivables and assets	25.7	(56.9)
provisions	(49.4)	(49.0)
other liabilities	19.5	(24.8)
Cash generated from/(used in) operations	**287.5**	**(53.3)**

Other non-cash changes includes: expenses on the employee long-term incentive programme of € 8.3 million (2021: € 6.2 million); net interest expenses for defined benefit pension plans amounting to €5.7 million (2021: €4.6 million) and net remeasurement gains of monetary foreign currency positions and derivative financial instruments of €13.2 million (2021: €6.4 million).

Notes continued

34. Net cash flow from financing activities

The reconciliation of movements of financial liabilities and assets to cash flows arising from financing activities for the current and the prior year is shown in the tables below:

in € million	31.12.2021	Cash changes	Non-cash changes					31.12.2022
			Changes in foreign exchange rates	Interest and other fair value changes	Reclassifications	Additions from initial consolidation	Additions and modifications of leases (IFRS 16)	
Borrowings[1]	(1,539.1)	(52.5)	(19.4)	(1.3)	0.0	(12.0)	0.0	(1,624.3)
Lease liabilities	(55.5)	20.6	(1.3)	0.0	0.0	(7.0)	(20.7)	(63.9)
Cash and cash equivalents	580.8	(49.8)	(10.3)	0.0	0.0	0.0	0.0	520.7
Net debt	**(1,013.8)**	**(81.7)**	**(31.0)**	**(1.3)**	**0.0**	**(19.0)**	**(20.7)**	**(1,167.5)**
Liabilities to fixed-term or puttable non-controlling interests	(60.0)	2.1	1.6	(0.6)	0.0	(10.9)	0.0	(67.8)

1) Included within Borrowings is interest payable of €4.3 million at 31.12.2022 and €4.4 million at 31.12.2021. Interest payable is reflected within Trade payables and other current liabilities on the Consolidated Statement of Financial Position.

in € million	31.12.2020	Cash changes	Non-cash changes					31.12.2021
			Changes in foreign exchange rates	Interest and other fair value changes	Additions	Reclassifications	Additions and modifications of leases (IFRS 16)	
Borrowings[1]	(1,114.5)	(408.9)	(15.3)	(0.4)	0.0	0.0	0.0	(1,539.1)
Lease liabilities	(56.8)	16.3	(1.6)	0.0	0.0	0.0	(13.4)	(55.5)
Cash and cash equivalents	589.2	(23.0)	14.6	0.0	0.0	0.0	0.0	580.8
Net debt	**(582.1)**	**(415.6)**	**(2.3)**	**(0.4)**	**0.0**	**0.0**	**(13.4)**	**(1,013.8)**
Liabilities to fixed-term or puttable non-controlling interests	(38.8)	1.3	(3.7)	(4.2)	(23.4)	8.8	0.0	(60.0)

1) Included within Borrowings is interest payable of €4.4 million at 31.12.2021 and €4.4 million at 31.12.2020. Interest payable is reflected within Trade payables and other current liabilities on the Consolidated Statement of Financial Position.

35. 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 addition, carrying amounts are shown aggregated according to measurement category.

in € million	Measurement category IFRS 9[1]	Level	31.12.2022 Carrying amount	31.12.2022 Fair value	31.12.2021 Carrying amount	31.12.2021 Fair value
Other non-current financial assets						
Marketable securities	FVPL	1	9.0	9.0	13.2	13.2
Shares	FVPL	3	0.5	0.5	0.5	0.5
Interest derivatives designated as cash flow hedges	–	2	42.4	42.4	0.0	0.0
Other non-current financial assets	AC	–	3.2		0.9	–
Trade and other current receivables	AC	–	433.9		414.4	–
Other current financial assets						
Derivatives	FVPL	2	1.1	1.1	2.5	2.5
Other current financial receivables	AC	–	0.2		0.4	–
Cash and cash equivalents[3]	AC	–	520.7		580.8	–
Financial assets			**1,011.0**		**1,012.7**	
Non-current and current borrowings						
Liabilities to financial institutions	AC	2	1,612.0	1,578.1	1,529.7	1,547.1
Other financial liabilities	AC	2	8.0		5.0	–
Non-current and current other financial liabilities						
Lease liabilities	AC	2	63.9		55.5	–
Derivatives	FVPL	2	9.5	9.5	0.1	0.1
Interest derivatives designated as cash flow hedges	–	2	0.0		9.6	9.6
Forward exchange contracts	FVPL	2	0.6	0.6	0.0	0.0
Commodity swaps designated as cash flow hedges	–	2	1.1	1.1	0.0	0.0
Liabilities to fixed-term or puttable non-controlling interests[2]	AC	2/3	67.8	67.8	60.0	60.0
Trade payables and other current liabilities	AC	–	566.4		692.9	–
Financial liabilities			**2,329.3**		**2,352.8**	
Aggregated according to measurement category						
Financial assets measured at FVPL			10.6		16.2	
Financial assets measured at amortised cost			958.0		996.5	
Financial liabilities measured at amortised cost			2,318.1		2,343.1	
Financial liabilities measured at FVPL			10.1		0.1	

1) FVPL: Financial assets/financial liabilities measured at fair value through profit or loss.
AC: Financial assets/financial liabilities measured at amortised cost.
2) Including the put option of the acquired Mireco amounting to €8.4 million, see Note (42).
3) Thereof €3.6 million related to cash in Russia.

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. These derivatives are measured using quoted forward rates that are currently observable (Level 2).

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, 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. RHI Magnesita recognised a put option liability related to the newly acquired group company Mireco in May 2022 amounting to €10.9 million, see Note (42). The fair value is based on the present value of performance-related contractual cashflows with a maturity in 2032 for Mireco. The principal valuation parameters are deemed to be non-observable (Level 3). Other liabilities to fixed-term or puttable non-controlling interests are valued at Level 2 of the fair value hierarchy.

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 2022 and 31 December 2021.

Net results by measurement category in accordance with IFRS 9

The effect of financial instruments on the income and expenses recognised in 2022 and 2021 is shown in the following table, classified according to the measurement categories defined in IFRS 9:

in € million	2022	2021
Net loss from financial assets and liabilities measured at fair value through profit or loss	(14.6)	7.2
Net loss from financial assets and liabilities measured at amortised cost	4.6	0.5

The net gain from financial assets and liabilities measured at fair value through profit or loss includes income from securities and shares, income from the disposal of securities and shares, impairment losses and income from reversals of impairment losses, unrealised results from the measurement of a long-term commodity futures contract, changes in the market value and realised results of forward exchange contracts and embedded derivatives in open orders in a currency other than the functional currency of RHI Magnesita, interest derivatives which do not meet the requirements of hedge accounting in accordance with IFRS 9 'Financial Instruments' and interest income from securities.

The net loss from financial assets and liabilities measured at amortised cost includes changes in valuation allowances, losses on derecognition and fair value gains and losses on the measurement of non-controlling interest put options. Net finance costs include interest income amounting to €8.3 million (2021: €14.2 million) and interest expenses of €47.5 million (2021: € 33.0 million), which result from financial assets and liabilities measured at amortised cost.

Other non-current financial assets

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

in € million	31.12.2022	31.12.2021
Interests in subsidiaries not consolidated	3.0	0.6
Marketable securities and shares	9.5	13.7
Interest rate swaps	42.4	0.0
Other non-current financial receivables	0.2	0.3
Other non-current financial assets	**55.1**	**14.6**

Accumulated impairments on investments, securities and shares amount to €4.3 million (2021: €3.6 million).

Other current financial assets

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

in € million	31.12.2022	31.12.2021
Derivatives in open orders	1.0	2.4
Forward exchange contracts	0.1	0.1
Current portion of non-current loans	0.2	0.4
Other current financial assets	**1.3**	**2.9**

36. Derivative financial instruments

Interest rate swaps

The Group has concluded interest rate swaps to hedge the cash flow risk associated to financial liabilities carrying variable interest rates into fixed 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 underlying hedged items are balanced out by the cash flow changes of the interest rate swaps. Potential hedge ineffectiveness could arise 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 as only international banks with high credit ratings are the counterparties to the interest rate swap.

Following the refinancing of the OeKB Euro and USD term loans, see Note (27), the associated interest rate swaps were closed out which resulted in a pre-tax gain of €1.0 million (2021: €0.0 million) recognised in the income statement through other comprehensive income. The Group entered into new interest swap instruments on both refinanced borrowings to fix the interest rate. These interest rate swaps are treated as cash flow hedges for accounting purposes. At 31 December 2022, the fair value of these interest rate swaps was €28.9 million.

The fair value of all interest rate swaps was €42.4 million at the reporting date (2021: €-9.6 million) and is shown in other non-current financial assets (liabilities) in the Consolidated Statement of Financial Position. For the reporting period of 2022, €59.1 million (2021: €8.7 million) has been recognised in other comprehensive income as fair value movements of the hedging instrument and €7.2 million (2021: €0.0 million) has been reclassified from Other Comprehensive Income to profit or loss and recognised within other net financial expenses reflecting the settlement of the hedging instrument when interest on the underlying debt is paid. No ineffectiveness has been recognised in profit or loss.

The financial effect of the hedged item and the hedging instrument for the year 2022 and 2021 is shown as follows:

in € million	Carrying amount	Statement of Financial Position	Change in fair value recognised in Other Comprehensive Income	Nominal amount
2022	42.4	Other non-current financial assets	59.1	USD 0.0 million EUR 709.2million
2021	(9.6)	Other non-current financial liabilities	8.7	USD 200 million EUR 369.2 million

in € million	Cash flow hedge reserve within Other comprehensive income	Balance net of deferred tax
2022	42.4	32.7
2021	(9.6)	(7.2)

Forward exchange contracts

Foreign exchange forward contracts are entered into to reduce the Group's exposure to currency movements based on the internal risk assessment and analysis conducted.

The nominal value and fair value of forward exchange contracts as of 31 December 2022 are shown in the table below:

	31.12.2022			
Purchase	Sale		Nominal value in million	Fair value in € million
EUR	USD	EUR	25.0	0.1
USD	INR	USD	8.5	0.0
INR	EUR	INR	4,000.0	(0.6)
Forward exchange contracts				**(0.5)**

Notes continued

The nominal value and fair value of forward exchange contracts as of 31 December 2021 are shown in the table below:

			31.12.2021	
Purchase	Sale		Nominal value in million	Fair value in € million
USD	BRL	BRL	80.0	0.1
EUR	USD	USD	0.0	0.0
Forward exchange contracts				**0.1**

37. 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 €1,011.0 million (2021: €1,012.7 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 and letters of credit, is shown by customer segment in the following table:

in € million	31.12.2022	31.12.2021
Steel	284.6	300.4
Industrial	148.8	103.3
Trade receivables	**433.4**	**403.7**
Credit insurance and letters of credit	(214.5)	(206.2)
Net credit exposure	**218.9**	**197.5**

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	2022		2021	
	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	**23.2**	**0.6**	**30.0**	**0.6**
Currency translation	0.8	–	0.3	–
Addition	7.3	0.3	3.5	–
Use	(1.3)	–	(5.2)	–
Reversal	(0.6)	–	(5.4)	–
Accumulated valuation allowance at year-end	**29.4**	**0.9**	**23.2**	**0.6**

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. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due.

in € million				Trade receivables - days past due
31.12.2022	Not past due	less than 30 days	more than 31 days	Total
Expected credit loss rate in %	0.02-0.34%	0.07-0.81%	0.31-49.48%	
Gross carrying amount invoiced	385.6	10.8	3.0	399.4
Lifetime expected credit loss	(0.5)	(0.1)	(0.4)	(1.0)

in € million				Trade receivables - days past due
31.12.2021	Not past due	less than 30 days	more than 31 days	Total
Expected credit loss rate in %	0.03-0.37%	0.06-0.86%	0.25-50.55%	
Gross carrying amount invoiced	351.9	26.3	7.2	385.4
Lifetime expected credit loss	(0.4)	(0.1)	(0.5)	(1.0)

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 2022, RHI Magnesita has a committed Revolving Credit Facility (RCF) of €600.0 million, which was unutilised (2021: committed RCF was €600.0 million and was also unutilised). The RCF is a syndicated facility with multiple international banks and matures in 2028. The liquidity of the Group's subsidiaries is managed regionally, while access to liquidity and optimised cash levels is ensured by Corporate Treasury, which supports business needs and lowers borrowing costs.

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 31.12.2022	Cash outflows	up to 1 year	2 to 5 years	over 5 years
Borrowings					
fixed interest	469.0	481.4	118.5	274.3	88.6
variable interest	1,143.1	1,284.7	132.9	1129.1	22.7
Other financial liabilities	8.0	8.1	(0.2)	8.3	0.0
Lease liabilities	63.9	70.2	18.5	33.6	18.1
Liabilities to fixed-term or puttable non-controlling interests	67.8	182.8	21.6	15.7	145.5
Trade payables and other current liabilities	506.5	506.5	506.5	0.0	0.0
Non-derivative financial liabilities	**2,258.3**	**2,533.7**	**797.8**	**1461.0**	**274.9**

				Remaining term	
in € million	Carrying amount 31.12.2021	Cash outflows	up to 1 year	2 to 5 years	over 5 years
Borrowings					
fixed interest	534.0	551.4	69.9	337.3	144.2
variable interest	995.7	1,022.9	154.3	706.7	161.9
Other financial liabilities	5.0	5.4	2.3	3.0	0.1
Lease liabilities	55.5	59.9	16.9	29.7	13.3
Liabilities to fixed-term or puttable non-controlling interests	60.0	197.9	3.0	20.0	174.9
Trade payables and other current liabilities	692.9	688.5	688.5	0.0	0.0
Non-derivative financial liabilities	**2,343.1**	**2,526.0**	**934.9**	**1096.7**	**494.4**

Notes continued

Derivative financial instruments

The remaining terms of derivative financial instruments based on expected undiscounted cash flow as of 31 December 2022 and 31 December 2021 are shown in the table below:

			Remaining term		
in € million	Carrying amount 31.12.2022	Cash flows	up to 1 year	2 to 5 years	over 5 years
Receivables from derivatives with net settlement					
Interest rate swaps	42.4	42.4	0.0	40.6	1.8
Forward exchange contracts	0.1	0.1	0.1	0.0	0.0
Derivatives in open orders	1.0	1.0	1.0	0.0	0.0
Liabilities from derivatives with net settlement					
Derivatives in open orders	9.5	9.5	9.5	0.0	0.0
Commodity swaps	1.1	1.1	0.9	0.2	0.0
Forward exchange contracts	0.6	0.6	0.6	0.0	0.0

			Remaining term		
in € million	Carrying amount 31.12.2021	Cash flows	up to 1 year	2 to 5 years	over 5 years
Receivables from derivatives with net settlement					
Forward exchange contracts	0.1	0.1	0.1	0.0	0.0
Derivatives in open orders	2.4	2.4	2.4	0.0	0.0
Liabilities from derivatives with net settlement					
Interest rate swaps	9.6	12.5	7.5	4.9	0.1
Derivatives in open orders	0.1	0.1	0.1	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 arise in financial instruments which are denominated in a currency other than the functional currency and are monetary in nature. These 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 'Financial Instruments: Disclosures'.

The majority of foreign currency financial instruments in the Group result from operating activities and intragroup financing transactions. The Group may designate intragroup balances as part of a net investment hedge in accordance with IAS 21 'The Effects of Changes in Foreign Exchange Rates' with the effective portion of exchange gains and losses recognised in equity. 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 2022:

in € million	USD	EUR	GBP	INR	Other	Total
Financial assets	813.3	69.5	11.2	5.2	60.3	959.5
Financial liabilities, provisions	(664.5)	(100.7)	(15.4)	(0.4)	(28.7)	(809.7)
Net foreign currency position	**148.8**	**(31.2)**	**(4.2)**	**4.8**	**31.6**	**149.8**

The foreign currency positions as of 31 December 2021 are structured as follows:

in € million	USD	EUR	GBP	INR	Other	Total
Financial assets	654.7	56.0	14.5	30.3	68.4	823.9
Financial liabilities, provisions	(622.9)	(72.8)	(14.2)	(0.4)	(17.6)	(727.9)
Net foreign currency position	**31.8**	**(16.8)**	**0.3**	**29.9**	**50.8**	**96.0**

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 2022 would have had the following effect on profit or loss and equity (both excluding income tax):

	Appreciation of 10%		Devaluation of 10%	
in € million	(Loss)/gain	Equity	Gain/(loss)	Equity
US Dollar	(12.9)	(12.9)	15.8	15.8
Euro	1.3	5.9	(1.6)	(7.2)
Indian Rupee	(0.4)	(0.4)	0.5	0.5
Other currencies	(2.5)	(2.5)	3.0	3.0

The effect in equity also includes the exchange effects recorded directly in Other comprehensive income in line with the Group's policy.

The hypothetical effect on profit or loss at 31 December 2021 can be summarised as follows:

	Appreciation of 10%		Devaluation of 10%	
in € million	Gain/(loss)	Equity	Gain/(loss)	Equity
US Dollar	(19.1)	(8.6)	23.3	10.6
Euro	1.8	6.3	(2.1)	(7.7)
Indian Rupee	(2.7)	(2.7)	3.3	3.3
Other currencies	(4.0)	(4.0)	4.8	4.8

The effect in equity also includes the exchange effects recorded directly in Other comprehensive income in line with the Group's policy.

Net investment hedge

On 29 July 2022, RHIMGMBH refinanced its USD 200 million loan with a new ESG-linked EUR 250 million loan. Further information is provided under Note (27). As a result, the Group's exposure to the USD foreign exchange risk on these investments ceased to exist. The cumulative translation effect of € 20.1 million (loss) before tax (2022: €15.1 million post tax; 2021: €10.6 million) is presented in the translation difference reserve within equity.

The impact of the net investment hedge is shown as follows:

in € million	Carrying amount	Statement of Financial Position	Recognised in Other Comprehensive Income	Nominal amount
July 2022	196.9	Non-current borrowings	(20.1)	USD 200 million
2021	176.8	Non-current borrowings	(14.1)	USD 200 million

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 2022, interest rate hedges amounting to a nominal value of €709.2 million (2021: €369.2 million) and a nominal value of USD 0.0 million (2021: USD 200.0 million) existed. In all cases, a variable interest rate was converted into a fixed interest rate through interest rate swaps. Further information is provided under Note (36).

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 2022 had been 25 basis points higher or lower, equity would have been €1.1 million (2021: €1.1 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 2022 had been 25 basis points higher or lower, the interest result would have been €0.1 million (2021: €0.3 million) lower or higher.

Commodity forward

Commodity price risk

The Group manages its exposure to commodity prices, namely gas and electricity purchases in Europe, by entering into forward fixed price take or pay contracts with various suppliers to mitigate and reduce the impact of price volatility and secure the energy supply for its production process. These contracts are accounted for as executory contracts as the commodities purchases are for own use purposes. The Group's Energy Risk policy sets out thresholds for fixing quantities based on the expected usage which is usually over a five-year period with lower levels of forward purchases in the outer years.

In line with the above strategy, the Group may also enter into financial commodity swap contracts to fix prices for expected purchases not covered by the fixed price take or pay contracts within the overall defined thresholds. These commodity swaps (the hedging instrument) are treated as cash flow hedges for accounting purposes to hedge the underlying price of the commodity (hedged item) used in the production process. The settlement of the commodity swaps is aligned with expected gas deliveries to reduce the risk of hedge ineffectiveness. Additionally, the counterparties to the hedging instruments are financial institutions with a high investment grade credit rating to reduce the credit risk exposure and any hedge ineffectiveness that may arise.

In the second half of 2022, the Group entered into commodity swap contracts for small volumes as part of the above strategy. At the end of the year, the fair value of the commodity swaps was €1.1 million and is reflected within liabilities. The loss was recognised within equity. The notional quantities of gas hedged using these instruments were 186.000 MwH.

Other market price risk

RHI Magnesita holds certificates in an investment fund amounting to €9.0 million (2021: €13.2 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.

38. 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.

	31.12.2022	31.12.2021
Net debt (in € million)[1]	1,167.5	1,013.8
Net gearing ratio (in %)	111.3%	123.3%
Net debt to Adjusted EBITDA	2.34x	2.61x

1) Further information is provided under Note (34).

Net debt, which reflects borrowings and lease liabilities net of cash and cash equivalents and short-term marketable securities held for trading, 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	31.12.2022	31.12.2021
EBIT	343.6	213.8
Amortisation	28.9	22.4
Restructuring and write-down expenses	(6.8)	58.8
Other operating income and expenses	18.2	(14.6)
Adjusted EBITA	**383.9**	**280.4**
Depreciation	115.6	108.7
Adjusted EBITDA	**499.5**	**389.1**
Total debt	1,624.3	1,539.1
Lease liabilities	63.9	55.5
Less: Cash and cash equivalents	520.7	580.8
Net debt	**1,167.5**	**1,013.8**
Net debt excluding IFRS 16 lease liabilities	**1,103.6**	**958.3**
Net debt to Adjusted EBITDA	**2.34x**	**2.61x**
Net debt to Adjusted EBITDA excluding IFRS 16 lease liabilities	**2.21x**	**2.46x**

In both 2022 and 2021, all externally imposed capital requirements were met. The Group has sufficient liquidity headroom within its committed debt facilities.

39. Contingent liabilities

At 31 December 2022, warranties, performance guarantees and other guarantees amount to €61.9 million (2021: €52.5 million). Contingent liabilities have a remaining term of between two months and three years. Based on past experience, the probability that contingent liabilities are realised is considered to be low.

Individual administrative proceedings and lawsuits which result from ordinary activities are pending as of 31 December 2022 or can potentially be exercised against RHI Magnesita in the future. The related risks were analysed with a view to their probability of occurrence.

Taxation contingencies

The calculation of income taxes is based on the tax laws applicable in the individual countries in which the Group operates. 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.

The Group is continually adapting its global presence to improve customer service and maintain its competitive advantage, and leads open discussions with tax authorities about, e.g., transfer of functions and related profit between related parties and exit taxation. 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, management's judgements are based on a likely outcome approach, taking into consideration advise from professional firms and previous experiences when assessing the risks.

The Group is party to several tax proceedings in Brazil which involve estimated contingent liabilities amounting to €243.0 million (2021: €200.8 million). These tax proceedings are as follows:

Income Tax relating to historical corporate transactions

There are three proceedings in which Brazilian Federal Tax Authorities issued tax assessments which rejected the deduction of goodwill generated in two corporate transactions that where undertaken 2007 and 2008, for Corporate Income Taxes. The tax authorities issued assessments arguing that such transactions cannot generate deductions as they do not fulfill the requirements provided by law. Although the Group has been broadly successful, the tax authorities have appealed those outcomes. The final outcome of these proceedings is expected within one and three years. The exposure of €157.0 million (2021: €130.6 million) is limited to the fiscal tax years ended 2018 at which stage all available goodwill tax deductions had been made.

Royalties

The Group is party to 38 proceedings where the Brazilian Mining Authorities ("ANM") challenged the criteria used for calculating and paying the Financial Compensation for Exploration of Mineral Resources ("CFEM"), which are mining royalties payable by every mining company. The authorities have mainly disputed the basis of production costs estimates used in the determination of the royalties that are payable. The claims relate to fiscal years up to 2017, following which the legislation for royalties was changed. The Group, together with its technical and legal advisors continues to challenge ANM assessments. Most of the procedures are ongoing within the ANM administrative courts. Final decisions of the first cases are expected within four to five years. As of 31.12.2022, the potential risk amounts to €28.2 million, including interest and penalties (2021: €23.6 million).

Notes continued

Corporate income and other taxes
There are several tax assessments in Brazil mainly relating to: offsetting federal tax payables and receivables, social security contributions, offsetting certain federal tax debts with corporate income tax credits. The potential risks of these tax assessments amount €57.8 million (2021: €46 million).

Civil litigation contingencies
Magnesita Refratários S.A., Contagem, Brazil, is party to a public civil action for damages allegedly caused by overloaded trucks in contravention to Brazilian traffic legislation. In 2017, a decision was rendered in favour of Magnesita in the trial court. The decision is being appealed by the Public Ministry of Minas Gerais. The final decision is expected in ten years. The potential loss from this proceeding amounts to € 15.5 million as of 31 December 2022 (2021: €11.6 million).

A class action against a Brazilian subsidiary relates to the working conditions of existing and former employees based at a customer's plant. A technical expertise appointed by the court indicated the exposure of approximately 900 current and employees to unhealthy conditions. The Company is currently assessing the number of current and former employees that may be entitled to compensation ('adicional de insalubridade'). In parallel, an external advisor has been engaged to determine the potential exposure should an unfavourable decision arise. Initial estimates are expected by the end of first quarter in 2023. The expected timing of court judgement is unknown. Management is unable to quantify the potential risk exposure as at 31 December 2022.

Other minor proceedings and lawsuits in which subsidiaries are involved have no significant impact on the financial position and performance of the Group.

40. Other financial commitments
Capital commitments amount to €20.4 million at 31 December 2022 (2021: €35.5 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 €399.7 million at the reporting date (2021: €410.8 million). 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.

41. Independent Auditor's remuneration

in € million	2022	2021
Fees in respect of the audit of the Consolidated and Parent Company Financial Statements[1]	(1.1)	(1.0)
Other audit fees, in respect of subsidiaries to PwC network firms	(1.8)	(1.6)
Total audit fees	**(2.9)**	**(2.6)**
Other non-audit services – Interim review[1]	(0.2)	(0.2)
Total fees	**(3.1)**	**(2.8)**

1) Total fees to PricewaterhouseCoopers Accountants N.V. (Netherlands) totalled €1.3 million (2021: €1.2 million).

42. Business Combinations
Acquisition of Horn & Co Minerals Recovery Group
On 3 May 2022, RHI Magnesita Group acquired a 51% ownership stake in Horn & Co Minerals Recovery Group ("Mireco"), a company focused on the recycling of various refractory products. Mireco was acquired for a cash consideration of €13.3 million in order to accelerate the Group's use of secondary raw materials in its refractory production. In the short term, the arrangement will give RHI Magnesita access to additional quantities of secondary raw material and improve productivity in the recycling process. In the longer term the new business will make high quality green raw materials available to the entire refractory industry in Europe. New technologies for the automation of sorting, for new cleaning purposes and for process automation are being developed with research partners and at RHI Magnesita's own technology centre in Leoben, Austria.

The fair values of the assets and liabilities recognised 'based on the preliminary purchase price allocation' as a result of the acquisition are presented as follows:

in € million	preliminary fair values
Property plant and equipment	13.2
Intangible assets: Customer relationships	12.1
Other non-current financial assets	2.3
Inventories	5.3
Trade and other receivables	1.4
Cash and cash equivalents	0.2
Total assets acquired	**34.5**
Trade and other liabilities	2.7
Other employee obligations	0.8
Income Taxes payable	0.3
Other liabilities	0.1
Current Borrowings	4.3
Right of use liabilities	7.0
Deferred tax liabilities	3.9
Non-current borrowings	2.8
Total liabilities assumed	**21.9**
Net identifiable assets acquired	**12.6**
Less: Non-controlling interests	(6.1)
Goodwill	6.8
Consideration paid	**13.3**
Consideration paid, net of cash acquired for purposes of the Statement of Cash Flows	13.1

The fair value step-up that was identified in the course of the preliminary purchase price allocation amounts to €13.1 million. €1.1 million relate to land and €12.1 million relate to customer relationships. Additionally, right-of-use assets and corresponding liabilities of €7.0 million were also recognised. The deferred tax liability recognised on these preliminary fair value uplifts was €3.9 million.

The goodwill of the preliminary purchase price allocation is attributable to the improved productivity in recycling and an enlarged product portfolio. The goodwill is fully deductible for tax purposes. The fair values attributed to assets and liabilities and the resulting goodwill are preliminary and subject to adjustment for a period of one year from the acquisition as allowed under the accounting standards. On finalisation of the fair values, adjustments, including tax impacts, if any, will be reflected against goodwill. The fair values of the acquired assets and liabilities including initial purchase price allocations are expected to be finalised within the first half of 2023. The business of Mireco is included within the Group's Steel Operating segment.

The Group recognises non-controlling interests in an acquired entity at the non-controlling interest's proportionate share of the acquired entity's net identifiable assets.

The non-controlling interests have the option to sell their remaining equity stake to RHI Magnesita at any time by 2032. The Group initially recognised the non-controlling interests of €6.1 million within equity. The put option liability of €10.9 million was initially recognised against the non-controlling interest, reducing it to zero and the difference was reflected against the Group's Retained income. The put option liability is recognised as a financial liability. Further information on the fair value of the put option is provided under Note (28).

Direct costs relating to the acquisition of Mireco and expensed in the Consolidated Statement of Profit or Loss amounted to €0.5 million.

Revenue and net profit after tax attributed to the Mireco acquisition from date of control and included in the Consolidated Statement of Profit or Loss was €18.8 million and €0.9 million, respectively. Its contribution to Adjusted EBITA was €1.6 million.

Had it been acquired from 1 January 2022, Group revenue and net profit after tax would have been higher by €29.7 million and €0.6 million, respectively.

Acquisition of SÖRMAŞ

On 1 September 2022, the Group completed the acquisition of 86.8% ownership stake in Söğüt Refrakter Malzemeleri Anonim Şirketi ("SÖRMAŞ"), a producer of refractories for the cement, steel, glass and other industries in Turkiye, for a consideration of €46.4 million in cash.

Notes continued

in € million	preliminary fair values
Property plant and equipment	3.6
Intangible assets: Customer relationships	10.5
Intangible assets: Order backlogs	5.9
Inventories	14.1
Trade and other receivables	14.7
Cash and cash equivalents	1.5
Total assets acquired	**50.3**
Trade and other liabilities	2.9
Other employee obligations	0.4
Income Taxes payable	0.7
Current Borrowings	4.9
Deferred tax liabilities	3.8
Total liabilities assumed	**12.7**
Net identifiable assets acquired	**37.6**
Less: Non-controlling interests	(5.0)
Goodwill	13.8
Consideration paid	**46.4**
Consideration paid, net of cash acquired for purposes of the Statement of Cash Flows	44.9

The fair value step-up that was identified in the course of the preliminary purchase price allocation amounts to €16.4 million. €10.5 million relate to customer relationships allocated to the Steel operating segment and €5.9 million to customer order backlogs. The deferred tax liability recognised on these preliminary fair value uplifts was €3.8 million.

The fair values attributed to assets and liabilities and the resulting goodwill are preliminary and subject to adjustment for a period of one year from the acquisition as allowed under the accounting standards. On finalisation of the fair values, adjustments, including tax impacts, if any, will be reflected against goodwill. The fair values of the acquired assets and liabilities including initial purchase price allocation are expected to be finalised by the third quarter of 2023. The business of SÖRMAŞ is mainly attributed to the Industrial division with the resulting goodwill allocated to Cement/Lime business.

Direct costs relating to the acquisition of SÖRMAŞ and expensed in the Consolidated Statement of Profit or Loss amounted to €0.7 million.

Revenue and net loss after tax attributed to the SÖRMAŞ acquisition from date of control and included in the Consolidated Statement of Profit or Loss was €12.0 million and €1.0 million, respectively. Its contribution to Adjusted EBITA was €2.6 million.

Had it been acquired from 1 January 2022, Group revenue and net profit after tax would have been higher by €36.6 million and €3.3 million, respectively.

Following the acquisition in September 2022, the Group acquired an additional 2.58% of the outstanding share capital for a total consideration of €1.4 million. This transaction has no impact on the Consolidated Statement of Profit or Loss and no adjustment to goodwill. The consideration paid is reflected within financing activities in the Consolidated statement of Cash Flows.

43. Transactions with related parties

Related companies include subsidiaries that are not 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 24.9 ˋRelated Party Disclosuresˋ, the personnel welfare foundation of Stopinc AG, Switzerland, and Chestnut Beteiligungs GmbH, Germany (shareholder of the Group, which is related to a director) are considered related companies.

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. Key management personnel comprise of members of the Board of Directors of RHI Magnesita N.V. and the Executive Management Team.

Related companies

In 2022 and 2021, the Group conducted the following transaction with its related companies:

	Joint ventures		Associates	
in € million	2022	2021	2022	2021
Revenue from the sale of goods and services	0.7	1.0	0.0	0.0
Purchase of raw materials	4.0	5.0	0.0	14.4
Interest income	0.0	0.1	0.7	0.2
Loans	0.0	0.0	0.0	0.8
Trade liabilities	0.5	0.0	0.0	1.3
Dividends received	0.0	6.8	0.0	0.0

In 2021, the Group charged electricity and stock management costs to the joint venture MAGNIFIN Magnesiaprodukte GmbH & Co KG, St. Jakob, Austria, and purchased raw materials. The 50% stake in Magnifin was sold as of 30 December 2021 and final disposal proceeds of € 8.7 million were received in 2022. In 2021, the associate Sinterco S.A., Nameche, Belgium, sold sintered doloma to the RHI Magnesita Group. The Group financing receivable (2021: €0.8 million) from a loan agreement with Sinterco is received.

In 2022 and 2021, no transactions were carried out between the RHI Magnesita Group and MSP Foundation and Chestnut Beteiligungs GmbH, 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 (29). At 31 December 2022, no current accounts receivable existed (2021: €0.0 million). In the past reporting period, employer contributions amounting to €0.6 million (2021: €0.6 million) were made to the personnel welfare foundation. At 31 December 2022, a net asset from overfunded pension plans of €1.7 million (2021: €0.8million) is recognised.

Related persons

Remuneration of key management personnel of the Group, which is subject to disclosure in accordance with IAS 24 'Related Party Disclosures', comprises the remuneration of the active Board of Directors and the Executive Management Team (EMT).

in € million	2022	2021
Executive Directors and EMT		
Salaries and short-term incentive schemes	6.6	5.5
Share based remuneration	4.6	3.9
Other	1.3	1.0
Total	**12.5**	**10.4**
Non- Executive Directors[1]	1.1	1.2
Employee Representatives[2]	0.3	0.4

(1) Compensation paid to Non-Executive Directors reflects short-term employee benefits, mainly fees for services as Directors.
(2) Employee representatives acting as Non-Executive Directors do not receive additional compensation for these services. The compensation relates to the expense as employees.

Share Dealing reports of persons discharging managerial responsibilities are published on the websites of RHI Magnesita N.V. and via regulatory news services. 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 132 to 157 of the Annual Report of the RHI Magnesita Group.

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.

44. Material events after the reporting date

Acquisition of Dalmia OCL Limited ("DOCL")

On 21 November 2022, the Group announced the acquisition of DOCL. DOCL is a refractory business located in India. It has five manufacturing facilities spread across the east, south, central and western region of India with a total annual production capacity of about 300,000 tonnes and around 1,200 employees.

The acquisition completed on 5 January 2023. The Group acquired 100% of DOCL through the issue of 27 million shares in its subsidiary RHI Magnesita India Limited ("RHIM India") which is listed on the Bombay Stock Exchange of India. The market share price of RHIM India closed at around 877 INR (Indian Rupees) on

Notes continued

the day of the exchange (around €10/share). Following the share swap, the Group settled a related party payable in DOCL of INR 3.9 billion (around €45 million), to the previous shareholders. This was settled through a new external debt facility in DOCL of INR 6.3 billion (around €72 million) maturing in January 2024. The remaining facility will be used for working capital purposes.

Following the issue of shares in RHIM India, the Group's interest in this subsidiary decreased from 70.2% to 60.1%. The Group continues to exercise control and will continue to consolidate RHIM India.

Acquisition of Jinan New Emei ("Jinan")

In January 2023, the Group entered into an agreement to acquire a 65.0% shareholding in Jinan New Emei Industries Co. Ltd, a company registered in China. Jinan is a leading producer of refractory slide gate plates and systems, nozzles and mixes for use in steel flow control, employing over 1,300 people and headquartered in Shandong province, China.

Under the terms of the acquisition, the Group will acquire the initial 65.0% shareholding for a total cash consideration of €40 million (CNY 293 million), of which 80% is payable on closing with the remaining 20% deferred to one year after closing. The Group has also agreed to acquire the remaining 35.0% in 2026 with the consideration calculated at an agreed average annual multiple of EBITDA and subject to a cap of €137 million (CNY 1 billion).

The acquisition is subject to competition authority clearance and is expected to complete within 2023.

Acquisition of Hi Tech.

On 31 January 2023, the Group completed the acquisition of the refractory business of Hi-Tech Chemicals Limited ("Hi-Tech"). It operates a state-of-the-art fully automated facility in the city of Jamshedpur, Jharkhand, manufacturing high-qualitative flow control products largely for the steel industry.

The business was acquired by the Group's subsidiary RHIM India. Total consideration paid for the acquisition amounts to around INR 7.3 billion (around €83 million) and is subject to final working capital adjustments. The acquisition was mainly funded through utilising INR 6.2 billion (around €69 million) from the INR 7.0 billion term loan with a maturity in December 2023 through RHIM India.

Statement of the Board of Directors

Statement pursuant to Article 5:25c, paragraph 2, subsection c. of the Dutch Financial Markets Supervision Act ("Wet op het financieel toezicht").

The Consolidated Financial Statements for the year ended 31 December 2022, have been prepared on a going concern basis and in accordance with IFRSs, as issued by the IASB and interpretations issued by the IFRIC, and as endorsed by the European Union (EU).

To our knowledge,

- the Consolidated Financial Statements referred to above give a true and fair view of the assets, liabilities, financial position, and profit of RHI Magnesita N.V. and the undertakings included in the consolidation as a whole; and

- the Annual Report for RHI Magnesita Group (comprising RHI Magnesita NV and its affiliated companies whose details are included in its Financial Statements) for the year ended 31 December 2022 gives a true and fair view of the state of affairs as of the balance sheet date, the development and course of business during the financial year, and that the Annual Report describes the material risks that the RHI Magnesita Group faces.

Vienna, 26 February 2023

Executive Directors

Stefan Borgas

Ian Botha

Non-Executive Directors

Herbert Cordt

John Ramsay

Janet Ashdown

David Schlaff

Stanislaus Prinz zu Sayn-Wittgenstein

Janice "Jann" Brown

Karl Sevelda

Marie-Hélène Ametsreiter

Sigalia Heifetz

Wolfgang Ruttenstorfer

Employee Representative Directors

Karin Garcia

Martin Kowatsch

Michael Schwarz

Company Financial Statements of RHI Magnesita N.V.

Company Balance Sheet as at 31 December 2022

(before appropriation of result)

in € million	Note	31.12.2022	31.12.2021
ASSETS			
Non-current assets			
Property, plant and equipment		0.2	0.5
Non-current financial assets	(A)	943.3	644.8
Securities		0.5	0.5
Deferred tax assets		10.8	32.5
Total non-current assets		**954.8**	**678.3**
Current assets			
Receivables from group companies		52.2	138.1
Other current receivables		0.4	0.4
Cash and cash equivalents	(B)	1.6	0.6
Total current assets		**54.2**	**139.1**
Total assets		**1,009.0**	**817.4**
EQUITY AND LIABILITIES			
Equity			
Share capital	(C)	49.5	49.5
Additional paid-in capital	(D)	361.3	361.3
Legal and mandatory reserves	(E)	86.3	84.3
Other reserves		464.5	164.7
Treasury shares	(F)	(116.1)	(117.0)
Result for the period	(L)	155.7	243.1
Shareholders' Equity		**1,001.2**	**785.9**
Non-current liabilities			
Non-current liabilities	(G)	0.2	2.0
Current liabilities			
Other current liabilities	(H)	7.6	29.5
Total liabilities		**7.8**	**31.5**
Total equity and liabilities		**1,009.0**	**817.4**

Company Statement of Profit or Loss for the period 1 January 2022 to 31 December 2022

in € million	Note	2022	2021
General and administrative expenses	(I)	(22.0)	(25.5)
Result before taxation		**(22.0)**	**(25.5)**
Net financial result	(J)	0.0	0.1
Profit before income tax		**(22.0)**	**(25.4)**
Income tax		(18.8)	29.3
Net result from investments	(K)	196.5	239.2
Net result for the period	**(L)**	**155.7**	**243.1**

Movements in Shareholders' Equity

in € million	Share capital	Treasury shares	Additional paid-in capital	Legal and mandatory reserves: Cash flow hedges	Legal and mandatory reserves: Currency translation	Legal and mandatory reserves: Mandatory reserve	Other reserves: Retained earnings	Net result	Equity attributable to shareholders
31.12.2021	**49.5**	**(117.0)**	**361.3**	**(7.1)**	**(197.3)**	**288.7**	**164.7**	**243.1**	**785.9**
Appropriation of prior year result							243.1	(243.1)	–
Net result								155.7	155.7
Share transfer / Vested LTIP		0.9					(0.9)		0.0
Share-based expenses							8.3		8.3
Dividends							(70.5)		(70.5)
Net income / (expense) recognised directly in equity				38.9	48.7		34.2		121.8
31.12.2022	**49.5**	**(116.1)**	**361.3**	**31.8**	**(148.6)**	**288.7**	**378.9**	**155.7**	**1,001.2**

in € million	Share capital	Treasury shares	Additional paid-in capital	Legal and mandatory reserves: Cash flow hedges	Legal and mandatory reserves: Currency translation	Legal and mandatory reserves: Mandatory reserve	Other reserves: Retained earnings	Net result	Equity attributable to shareholders
31.12.2020	**49.5**	**(21.5)**	**361.3**	**(13.7)**	**(249.3)**	**288.7**	**206.3**	**24.8**	**646.1**
Appropriation of prior year result							24.8	(24.8)	–
Net result								243.1	243.1
Shares repurchased		(95.5)							(95.5)
Share-based expenses							6.2		6.2
Dividends							(71.2)		(71.2)
Net income / (expense) recognised directly in equity				6.6	52.0		(1.4)		57.2
31.12.2021	**49.5**	**(117.0)**	**361.3**	**(7.1)**	**(197.3)**	**288.7**	**164.7**	**243.1**	**785.9**

Notes

to the Company Financial Statements 2022

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 shares of RHI Magnesita N.V. (ISIN code NL0012650360) are listed on the Main Market of the London Stock Exchange and are included in the FTSE 250 index. The Company holds a secondary listing on the Vienna Stock Exchange (Wiener Börse).

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.

The Company has issued a declaration of joint and several liability as referred to in section 403, Book 2 of the Dutch Civil Code in respect of one of its consolidated participations, namely Trading B.V.

Fiscal Unity

For corporate income 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

According to the group and tax compensation agreement, which forms a legal requirement for the Austrian corporate tax group, tax compensation payments within the corporate tax group are calculated based on the stand-alone method, without charging negative tax compensations. In case of a taxable profit, the respective tax group member has to pay a tax compensation to RHI Magnesita N.V. as the head of the corporate tax group amounting to the legally applicable corporate tax rate (25.0% for 2022). In case of a taxable loss, the respective tax group member does not receive a negative tax compensation by RHI Magnesita N.V., but rather the taxable loss is carried forward internally and reduces the calculation base for any future tax compensation payment by the respective tax group member to RHI Magnesita N.V. (group internal carry forward of losses). Any tax compensation payment by tax group members to RHI Magnesita N.V. is reduced by withholding taxes paid by the respective group member, which RHI Magnesita N.V. could credit against any corporate income tax due in Austria. For cases of termination of the corporate tax group or cases in which a tax group member leaves the corporate tax group, the group and tax compensation agreement foresees a final tax compensation true-up.

The corporate income tax rate for the Company is 25% (2021: 25%). The effective tax rate is 86.0% (2021: 115.3%) with an income tax expense of €18.8 million (2021: €29.4 million income) on a loss before income tax of €22.0 million (2021: €25.4 million loss). The higher effective income tax rate is mainly attributable to deferred tax asset revaluations on transfer pricing adjustments and intercompany debt waiver losses of €17.5 million in 2022, non-deductible expenses and non-taxable income of €0.9 million (2021: € 1.6 million) and the tax effect of subsidiaries included within the fiscal unity without a corresponding impact on losses before income tax.

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 receivables are measured at fair value and are subsequently measured at amortised 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:

		31.12.2022	31.12.2021
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

The investments have developed as follows:

in € million	2022	2021
At beginning of year	644.8	480.6
Transactions with non-controlling interests without change of control	(5.2)	(21.7)
Capital contributions	0.0	70.0
Changes from currency translation and cash flow hedges	87.7	58.6
Changes from defined benefit plans	39.5	20.2
Equity settled transaction	0.0	(2.1)
Dividend distribution	(20.0)	(200.0)
Net result from investments	196.5	239.2
Balance at year-end	**943.3**	**644.8**

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%:

		31.12.2022		31.12.2021	
Ser. no.	Name and registered office of the company	Share-holder	Share in %	Share-holder	Share in %
1.	RHI Magnesita N.V., Arnhem, Netherlands				
2.	Agellis Group AB, Lund, Sweden	46.	100.0	46.	100.0
3.	Baker Refractories Holding Company, Delaware, USA	35.	100.0	35.	100.0
4.	Baker Refractories I.C., Inc., Delaware, USA	3.	100.0	3.	100.0
5.	D.S.I.P.C.-Didier Société Industrielle de Production et de Constructions, Valenciennes, France	7.	100.0	7.	100.0
6.	RHI Magnesita Belgium N.V., Evergem, Belgium	60.,94.	100.0	60.,94.	100.0
7.	RHI Magnesita Deutschland AG, Wiesbaden, Germany	1.,46.	100.0	1.,46.	100.0
8.	Dutch Brasil Holding B.V., Arnhem, Netherlands	100.	100.0	100.	100.0
9.	Dutch MAS B.V., Arnhem, Netherlands	7.	100.0	7.	100.0
10.	Dutch US Holding B.V., Arnhem, Netherlands	100.	100.0	100.	100.0
11.	FE "VERA", Dnipro, Ukraine	46.	100.0	46.	100.0
12.	Feuerfestwerk Bad Hönningen GmbH, Wiesbaden, Germany	105.	100.0	105.	100.0
13.	GIX International Limited, Dinnington, United Kingdom	106.	100.0	106.	100.0
14.	Horn & Co. Minerals Recovery GmbH, Siegen, Germany	62.	51.0	-	0.0
15.	INDRESCO U.K. Ltd., Dinnington, United Kingdom	13.	100.0	13.	100.0
16.	Intermetal Engineers Private Limited, Mumbai, India	44.	99.9	44.	99.9
17.	Liaoning RHI Jinding Magnesia Co., Ltd., Dashiqiao City, PR China 1)	46.	83.3	46.	83.3
18.	LLC "RHI Wostok Service", Moscow, Russia	46.,62.	100.0	46.,62.	100.0
19.	LLC "RHI Wostok", Moscow, Russia	46.,62.	100.0	46.,62.	100.0
20.	Lokalbahn Mixnitz-St. Erhard GmbH, Vienna, Austria	85.	100.0	85.	100.0
21.	LWB Holding Company, Delaware, USA	-	0.0	47.	100.0
22.	LWB Refractories Belgium S.A., Liège, Belgium	37.,105.	100.0	37.,105.	100.0
23.	LWB Refractories Beteiligungs GmbH & Co. KG, Wiesbaden, Germany	-	0.0	47.	100.0
24.	LWB Refractories Hagen GmbH, Wiesbaden, Germany	105.	100.0	105.	100.0
25.	LWB Refractories Holding France S.A.S., Valenciennes, France	105.	100.0	105.	100.0
26.	RHI Magnesita Turkey Refractories, Eskisehir, Turkey 2)	46.	100.0	46.	100.0
27.	Magnesita Asia Refractory Holding Ltd, Hong Kong, PR China	25.	100.0	25.	100.0
28.	Magnesita Finance S.A., Luxembourg, Luxembourg	8.	100.0	8.	100.0
29.	Magnesita International Limited, London, United Kingdom	-	0.0	42.	100.0
30.	Magnesita Malta Finance Ltd., St. Julians, Malta	31.,105.	100.0	31.,105.	100.0
31.	Magnesita Malta Holding Ltd., St. Julians, Malta	37.,105.	100.0	37.,105.	100.0
32.	Magnesita Mineração S.A., Brumado, Brazil	42.	100.0	42.	100.0
33.	Magnesita Refractories (Canada) Inc., Montreal, Canada	3.	100.0	3.	100.0
34.	Magnesita Refractories (Dalian) Co. Ltd., Dalian, PR China	28.	100.0	28.	100.0
35.	Magnesita Refractories Company, York, USA	21.	100.0	21.	100.0
36.	Magnesita Refractories Mexico S.A. de C.V., Monterrey, Mexico	3.,4.	100.0	3.,4.	100.0
37.	Magnesita Refractories GmbH, Wiesbaden, Germany	105.	100.0	105.	100.0
38.	Magnesita Refractories Ltd., Dinnington, United Kingdom	3.	100.0	3.	100.0
39.	Magnesita Refractories Middle East FZE, Dubai, United Arab Emirates	28.	100.0	28.	100.0
40.	Magnesita Refractories S.C.S., Valenciennes, France	25.,105.	100.0	25.,105.	100.0
41.	Magnesita Refractories S.R.L., Milano, Italy	105.	100.0	105.	100.0
42.	Magnesita Refratários S.A., Contagem, Brazil	8.	100.0	8.	100.0
43.	Magnesita Resource (Anhui) Company. Ltd., Chizhou, PR China	63.	100.0	63.	100.0
44.	RHI Magnesita India Limited	8.,10.,106.	70.2	8.,10.,106.	70.2

		31.12.2022		31.12.2021	
Ser. no.	Name and registered office of the company	Share-holder	Share in %	Share-holder	Share in %
45.	Producción RHI México, S. de R.L. de C.V., Ramos Arizpe, Mexico	93.,106.	100.0	93.,106.	100.0
46.	Radex Vertriebsgesellschaft m.b.H., Leoben, Austria	102.	100.0	102.	100.0
47.	Rearden G Holdings Eins GmbH, Wiesbaden, Germany	28.	100.0	28.	100.0
48.	Refractarios Argentinos S.A.I.C.M., San Nicolás, Argentina	8.,50.	100.0	8.,50.	100.0
49.	Refractarios Magnesita Chile S/A, Santiago, Chile	-	0.0	42.,48.	100.0
50.	Refractarios Magnesita Colombia S/A, Sogamoso, Colombia	8.	100.0	8.	100.0
51.	Refractarios Magnesita del Perú S.A.C., Lima, Peru	8.,50.	100.0	8.,50.	100.0
52.	Refractory Intellectual Property GmbH & Co KG, Vienna, Austria	53.,62.	100.0	53.,62.	100.0
53.	Refractory Intellectual Property GmbH, Vienna, Austria	62.	100.0	62.	100.0
54.	Reframec Manutenção e Montagens de Refratários S.A., Contagem, Brazil	-	0.0	42.	100.0
55.	RHI Argentina S.R.L., Buenos Aires, Argentina	-	0.0	10.,106.	100.0
56.	RHI Canada Inc., Burlington, Canada	106.	100.0	106.	100.0
57.	RHI Chile S.A., Santiago, Chile	13.,106.	100.0	13.,106.	100.0
58.	RHI Dinaris GmbH, Wiesbaden, Germany	-	0.0	94.	100.0
59.	RHI Finance A/S, Hellerup, Denmark	62.	100.0	62.	100.0
60.	RHI GLAS GmbH, Wiesbaden, Germany	94.	100.0	94.	100.0
61.	RHI ITALIA S.R.L., Brescia, Italy	62.	100.0	62.	100.0
62.	RHI Magnesita GmbH, Vienna, Austria	1.	100.0	1.	100.0
63.	RHI Magnesita China Ltd., Shanghai, China	46.	100.0	46.	100.0
64.	RHI Magnesita (Chongqing) Refractory Materials Co., Ltd.	63.	51.0	63.	51.0
65.	RHI Magnesita Distribution B.V., Rotterdam, Netherlands	-	0.0	67.	100.0
66.	RHI Magnesita Re Limited, Guernsey, United Kingdom	46.	100.0	-	0.0
67.	RHI Magnesita Trading B.V., Rotterdam, Netherlands	62.	100.0	62.	100.0
68.	RHI Magnesita Vietnam Company Limited, Ho Chi Minh City, Vietnam	78.	100.0	78.	100.0
69.	RHI Magnesita Services Europe Gerbstedt GmbH, Gerbstedt/Hübitz, Germany	-	0.0	70.	100.0
70.	RHI Magnesita Services Europe GmbH, Kerpen, Germany	-	0.0	7.	100.0
71.	RHI MARVO S.R.L., Bucharest, Romania	46.,100.	100.0	46.,100.	100.0
72.	RHI Magnesita Properties MO, LLC, Missouri, USA	-	0.0	101.	100.0
73.	RHIM Mireco Mitterdorf GmbH, St.Barbara im Mürztal, Austria	14.	100.0	-	0.0
74.	RHI Refractories (Dalian) Co., Ltd., Dalian, PR China	46.	100.0	46.	100.0
75.	RHI Refractories (Site Services) Ltd., Dinnington, United Kingdom	15.	100.0	15.	100.0
76.	RHI Refractories Africa (Pty) Ltd., Sandton, South Africa	46.	100.0	46.	100.0
77.	RHI Refractories Andino C.A., Puerto Ordaz, Venezuela	106.	100.0	106.	100.0
78.	RHI Refractories Asia Pacific Pte. Ltd., Singapore	62.	100.0	62.	100.0
79.	RHI Refractories Egypt LLC., Cairo, Egypt	-	0.0	46.,100.	100.0
80.	RHI Refractories France SA, Valenciennes, France 3)	97.	100.0	97.	100.0
81.	RHI Refractories Ibérica, S.L., Oviedo, Spain	97.	100.0	97.	100.0
82.	RHI Refractories Liaoning Co., Ltd., Bayuquan, PR China 1)	46.	66.0	46.	66.0
83.	RHI Refractories Mercosul Ltda., Sao Paulo, Brazil	-	0.0	100.,106.	100.0
84.	RHI Refractories Nord AB, Stockholm, Sweden	97.	100.0	97.	100.0
85.	RHI Refractories Raw Material GmbH, Vienna, Austria	1.,46.,62.	100.0	1.,46.,62.	100.0
86.	RHI Refractories Site Services GmbH, Wiesbaden, Germany	7.	100.0	7.	100.0
87.	RHI Refractories UK Limited, Bonnybridge, United Kingdom	7.	100.0	7.	100.0
88.	RHI Refratários Brasil Ltda, Contagem, Brazil; i.l.	10.,42.	100.0	10.,42.	100.0

Ser. no.	Name and registered office of the company	31.12.2022 Share-holder	31.12.2022 Share in %	31.12.2021 Share-holder	31.12.2021 Share in %
89.	RHI Sales Europe West GmbH, Urmitz, Germany	–	0.0	7.,94.	100.0
90.	RHI Trading (Dalian) Co., Ltd., Dalian, PR China	46.	100.0	46.	100.0
91.	RHI Ukraina LLC, Dnepropetrovsk, Ukraine	46.,100.	100.0	46.,100.	100.0
92.	RHI United Offices America, S.A. de C.V., Monterrey, Mexico	67.,93.	100.0	67.,93.	100.0
93.	RHI Refractories España, S.L., Lugones, Spain	7.,9.	100.0	7.,9.	100.0
94.	RHI Urmitz AG & Co. KG, Mülheim-Kärlich, Germany	7.,86.	100.0	7.,86.	100.0
95.	RHI US Ltd., Delaware, USA	10.	100.0	10.	100.0
96.	RHI-Refmex, S.A. de C.V., Ramos Arizpe, Mexico	93.,106.	100.0	93.,106.	100.0
97.	SAPREF AG für feuerfestes Material, Basel, Switzerland	106.	100.0	106.	100.0
98.	SÖRMAŞ SÖĞÜT REFRAKTER MALZEMELERİ ANONİM ŞİRKETİ (Sörmas), Söğüt / Bilecik, Turkiye	46.	89.2	–	0.0
99.	RHI Magnesita Interstop AG, Hünenberg, Switzerland	7.,46.	100.0	7.,46.	100.0
100.	Veitscher Vertriebsgesellschaft m.b.H., Vienna, Austria	62.	100.0	62.	100.0
101.	Veitsch-Radex America LLC., Delaware, USA	95.	100.0	95.	100.0
102.	Veitsch-Radex GmbH & Co OG, Vienna, Austria	62.,103.	100.0	62.,103.	100.0
103.	Veitsch-Radex GmbH, Vienna, Austria	62.	100.0	62.	100.0
104.	Veitsch-Radex Vertriebsgesellschaft m.b.H., Vienna, Austria	62.	100.0	62.	100.0
105.	Vierte LWB Refractories Holding GmbH, Wiesbaden, Germany	47.	100.0	23.,47.	100.0
106.	VRD Americas B.V., Arnhem, Netherlands	46.,62.	100.0	46.,62.	100.0
107.	Zimmermann & Jansen GmbH, Wiesbaden, Germany	7.	100.0	7.	100.0
108.	Dr.-Ing. Petri & Co. Unterstützungsgesellschaft m.b.H., Wiesbaden, Germany	7.	100.0	7.	100.0
109.	Horn & Co Minerals Recovery Verwaltungs GmbH, Siegen, Germany	14.	100.0	–	0.0
110.	Horn & Co. Polska sp. z o.o., Poland	14.	100.0	–	0.0
111.	Magnesita Refractories A.B., Stocksund, Sweden; i.l.	105.	100.0	105.	100.0
112.	Magnesita Refractories PVT Ltd, Mumbai, India	47.,105.	100.0	47.,105.	100.0
113.	Magnesita Refractories S.A. (Pty) Ltd., Sandton, South Africa	37.	100.0	37.	100.0
114.	MAG-Tec Participações Ltda. Ltda., Contagem, Brazil; i.l.	42.	98.7	42.	98.7
115.	Minerals and Metals Recovering - Mireco Aktiebolag, Fagersta, Sweden	14.	100.0	–	0.0
116.	Mireco SARL, Entzheim, France	14.	100.0	–	0.0
117.	Mireco SH.P.K, Kosovo	14.	100.0	–	0.0
118.	Refractarios Especiales Y Moliendas S.A., Buenos Aires, Argentina	–	0.0	48.	100.0
119.	Refractarios Magnesita Uruguay S/A, Montevideo, Uruguay	–	0.0	42.	100.0
120.	RHI Réfractaires Algérie E.U.R.L., Sidi Amar, Algeria	80.	100.0	80.	100.0
121.	Rudgruvans Industrier AB, Fagersta, Sweden	14.	100.0	–	0.0
	Equity-accounted joint ventures and associated companies	.		.	
122.	Chongqing Boliang Refractory Materials Co. Ltd, Chongqing, China	63.	51.0	63.	51.0
123.	Magnesita Envoy Asia Ltd., Kaohsiung, Taiwan	3.	50.0	3.	50.0
124.	Sinterco S.A., Nameche, Belgium	47.	70.0	47.	70.0

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 GmbH and Veitscher Vertriebsgesellschaft mbH.
3) Further shareholders are RHI Magnesita Deutschland AG and RHI GLAS GmbH.
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 2022, RHI Magnesita N.V.'s issued and fully paid-in share capital consists of 47,017,695 ordinary shares (2021: 46,999,019 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 (36) and Note (37) 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.

Legal and mandatory reserve

The articles of association stipulate a mandatory reserve of €288,699,230.59 which was created in connection with the merger of RHI Refractories and Magnesita in 2017.

No distributions, allocations or additions may be made, and no losses of the Company may be allocated to the mandatory reserve.

Legal and mandatory reserves represent legal and statutory reserves in line with Chapter 7 'Decree on financial statements formats' of the Dutch Civil Code.

(F) Treasury shares

As at 31 December 2022, RHI Magnesita treasury shares amount to 2,460,010 (2021: 2,478,686).

Non-Current liabilities

(G) Other non-current liabilities

in € million	31.12.2022	31.12.2021
Personnel provisions	0.1	1.7
Provisions for pensions	0.1	0.0
Other non-current financial liabilities	0.0	0.3
Total non-current liabilities	**0.2**	**2.0**

Current liabilities

(H) Other current liabilities

in € million	31.12.2022	31.12.2021
Trade payables	1.2	1.6
Payables to group companies	0.4	21.5
Accrued liabilities	6.0	6.4
Total current liabilities	**7.6**	**29.5**

The 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.

(I) General and administrative expenses

in € million	2022	2021
External services/consulting expenses	(2.0)	(2.6)
Cost for principal services Austria	0.0	3.0
Personnel expenses	(18.4)	(22.9)
Other expenses	(1.6)	(3.0)
Total general and administrative expenses	**(22.0)**	**(25.5)**

in € million	2022	2021
Wages and salaries	(16.5)	(19.7)
Social security charges	(1.1)	(2.0)
Pension contributions	(0.4)	(0.5)
Other employee costs	(0.4)	(0.7)
Total wages and salaries	**(18.4)**	**(22.9)**

(J) Net financial result
The 2022 net financial result amounts to €0.0 million (2021: €0.1 million).

(K) Net results from investments
In year 2022, the full year results of the investments amount to a profit of €196.5 million (2021: €239.2 million) and are recognised in the Company Statement of Profit or Loss.

(L) Net result for the period
In 2022, 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	2022
Profit attributable to shareholders	155.7
In accordance with Article 27 clause 1 to be transferred to reserves	0.0
At the disposal of the General Meeting of Shareholders	**155.7**

For 2022, the Board of Directors will propose a dividend of €1.10 per share for the shareholders of RHI Magnesita N.V. The proposed dividend is subject to the approval by the Annual General Meeting on 24 May 2023.

Other notes
Number of employees
The average number of employees of RHI Magnesita N.V. during 2022 amounts to 8 (2021: 67).

Off balance sheet commitments
RHI Magnesita N.V. as an ultimate parent company provided a corporate guarantee of €1,549.4 million (2021: €1,530.3 million) for the borrowings of the Group. The Borrowings are as disclosed in Note (27). Additionally €20.1 million (2021: €79.2 million) of corporate guarantees are issued in favour 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 (41), (10) and (43) of the Consolidated Financial Statements.

The Company 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 (44) of the Consolidated Financial Statements.

Vienna, 26 February 2023

Board of Directors

Executive Directors

Stefan Borgas

Ian Botha

Non-Executive Directors

Herbert Cordt

John Ramsay

Janet Ashdown

David Schlaff

Stanislaus Prinz zu Sayn-Wittgenstein

Janice "Jann" Brown

Karl Sevelda

Marie-Hélène Ametsreiter

Sigalia Heifetz

Wolfgang Ruttenstorfer

Employee Representative Directors

Karin Garcia

Martin Kowatsch

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 of RHI Magnesita N.V.

Report on the financial statements 2022

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 2022 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 2022 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 2022 of RHI Magnesita N.V., Arnhem. The financial statements comprise 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 2022;
- the following consolidated statements for the year 2022: profit or loss, comprehensive income, cash flows and changes in equity; 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 2022;
- the company statement of profit or loss for the period 1 January 2022 to 31 December 2022; and
- the notes, comprising a summary of 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
We designed our audit procedures with respect to the key audit matters, fraud and going concern, and the matters resulting from that, in the context of our audit of the financial statements as a whole and in forming our opinion thereon. The information in support of our opinion, like our findings and observations related to individual key audit matters, our audit approach regarding fraud risks and our audit approach regarding going concern was set up in this context and we do not provide a separate opinion or conclusion on these matters.

Overview and context
RHI Magnesita N.V. is a global producer and supplier of refractory products, systems and solutions. 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.

During 2022, the Company executed price increases resulting in increased revenues compared to prior year and offsetting the impact from cost inflation from energy, raw materials and labour. Profit before tax adjusted for exceptional items increased to €318 million. Management considered these developments when preparing its financial statements. This affected the determination of materiality, the scope of our group audit and our audit procedures as described in the section 'Materiality', 'The scope of our audit' and 'Key audit matters'.

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 these considerations, we paid attention to, amongst others, the assumptions underlying the physical and transition risk related to climate change. In note 3 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 and the recognition and valuation of tax positions, we considered these matters as key audit matters as set out in the section 'Key audit matters' of this report.

Apart from key audit matters and the impact from the climate change on our audit, as described below, other areas of focus in our audit were the asset impairment considerations on construction projects and the purchase price allocation for acquisitions made in 2022. In addition, we performed audit procedures on the items marked 'audited' in the remuneration report.

RHI Magnesita N.V. assessed the possible effects of climate change and its plans to meet a zero-waste product life cycle strategy on its financial position, refer to the sections 'Principal risks' and 'Sustainability' of the Group's Strategic Report where management defined potential physical as well as transitional risks, risk mitigating activities, risk governance, strategy and metrics.

Management acknowledged that the inherent likelihood of the climate change related risk has risen due to the increasing regulatory complexity in various countries and stakeholders' expectations. The potential reputational risk remains high and financial impact of this risk was further assessed during 2022.

Climate change initiatives and commitments impact the preparation of the Group's financial statements in a variety of ways, all with inherent uncertainties. In the reporting period management further expanded its analysis of the impact of climate related risks (physical and transitional) on major assumptions incorporated in forecasts and disclosures in the financial statements. The Company assessed specific financial risks and opportunities from initiatives on carbon pricing, the Carbon Border Adjustment Mechanism (CBAM) as well as the opportunities from recycling and other initiatives to lower carbon emissions for its customers.

In note 4 of the financial statements, management highlighted that it incorporated considerations around climate change and the energy transition in its financial planning assumptions. The most important transitional risk impact is expected to be higher operating costs due to an increase in the level or scope of carbon pricing. Management also sees opportunities in increased demand for products that can support customers reducing carbon emissions. Within the financial statements management acknowledged the impact of climate risks on the valuation of goodwill and property, plant and equipment, restoration provisions, and deferred tax assets. Due to the high degree of estimation uncertainty the impact of the effects of climate risk on the financial statements will be assessed by management on an ongoing basis.

As we have not been engaged in expressing assurance over the sustainability reporting, our procedures in this context consisted primarily of making inquiries with officers of the entity and determining the plausibility of the information reported. During our planning procedures, we made enquiries of management to understand and assess the extent of potential impact of climate related risk on the Group's financial statements. We challenged the appropriateness of management's assessment of the potential impact (e.g. estimated useful life of assets, potential diminished access to financing) on major accounting estimates. The impact of climate related risks is not considered to be a separate key audit matter.

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 in our team experts and specialists in the areas of valuations, employee benefits, IT and corporate income taxes.

The outline of our audit approach was as follows:

Materiality
- Overall materiality: €14 million.

Audit scope
- We conducted audit work in 13 locations.
- Site visits were conducted to Austria, Brazil, India and the Integrated Business Services Centre (Oviedo, Spain). We have also performed (remote) file reviews for the Netherlands, Austria, Brazil, China, India, Türkiye and the USA.
- Audit coverage: 83% of consolidated revenue, 84% of consolidated total assets and 72% of consolidated profit before tax.

Key audit matters
- Valuation of goodwill and other intangible assets
- Recognition and valuation of tax positions

Materiality

The scope of our audit was influenced by the application of materiality, which is further explained in the section 'Our responsibilities for the audit of the financial statements'.

Based on our professional judgement we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and to evaluate the effect of identified misstatements, both individually and in aggregate, on the financial statements as a whole and on our opinion.

Overall group materiality	€14.0 million (2021: €12.6 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 items (i.e., restructuring, certain items included in other income and expenses and financial expenses and amortization of intangible assets) as the primary benchmark, a generally accepted auditing practice, based on our analysis of the common information needs of the users of the financial statements. On this basis, we believe that profit before tax adjusted for exceptional items is the most relevant metric for the financial performance of the Group.
Component materiality	Based on our judgement, we allocate materiality to each component in our audit scope that is less than our overall group materiality. The range of materiality allocated across components was between €1.2 million and €12 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 any misstatement identified during our audit above €0.8 million (2021: €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.

Our audit primarily focused on the significant components of the Group: RHI Magnesita GmbH (Austria), RHI US Ltd (USA), and Magnesita Refratários S.A. (Brazil). We subjected those three components to audits of their complete financial information, as they are individually financially significant to the Group. Additionally, we selected nine components for audit procedures to achieve appropriate coverage on financial line items in the consolidated financial statements. Those additional components also cover entities that include significant or higher risk areas defined during the risk assessment process.

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

Revenue	83%
Total assets	84%
Profit before tax	72%

None of the remaining components individually 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 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 the scope of the work. We explained to the component audit teams the structure of the Group, the main developments that were relevant for the component auditors, the risks identified, the materiality levels to be applied and our global audit approach. We had individual calls with each of the in-scope component audit teams, both 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 that could be of relevance for the consolidated financial statements.

The group engagement team visits the component teams and local management on a rotational basis. In the current year, the group audit team visited the RHI Magnesita finance functions in Austria, Brazil and India given the size of these operating locations. We also visited the Integrated Business Services location office in Spain. During our visits we met with local management and component auditors, discussed significant business developments, accounting matters and the areas of significant risks. Furthermore, we reviewed selected working papers of the component auditors in the Netherlands, Austria, Brazil, China, India, Türkiye, and the USA. We also conducted a series of video conference meetings with local management along with our component teams. During these meetings, we discussed the strategy and financial performance of the local businesses, as well as the audit plan and execution, significant risks and other relevant audit topics.

The group engagement team performed the audit work for the parent company RHI Magnesita N.V. as well as the Integrated Business Services (IBS) office activities in Spain on areas such as fixed assets, cash and cash equivalents and aspects of accounts payable and accounts receivable. In addition, the group engagement team performed audit work over the headquarter-related activities in Vienna. This includes the audit of IT systems, group consolidation, inventory valuation, financial statement disclosures, remuneration disclosures and several 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 outlined above at the components, combined with additional procedures exercised at group level, we have been able to obtain sufficient and appropriate audit evidence on the Group's financial information, to provide a basis for our opinion on the financial statements.

Audit approach to fraud risks

We identified and assessed the risks of material misstatements of the financial statements due to fraud. During our audit we obtained an understanding of the entity and its environment and the components of the internal control system. This included management's risk assessment process, management's process for responding to the risks of fraud and monitoring the internal control system and how the board of directors exercised oversight, as well as the outcomes. We refer to section 'Effective risk management' of the Strategic report for management's fraud risk assessment and section 'Sustainability governance' of the Strategic report in which management reflects on this fraud risk assessment.

We evaluated the design and relevant aspects of the internal control system and in particular the fraud risk assessment, as well as the code of conduct, whistle blower procedures and incident registration process, among other things.

As part of our process of identifying fraud risks, we, together with our forensic specialists, evaluated fraud risk factors with respect to financial reporting fraud, misappropriation of assets and bribery and corruption. We assessed whether those factors indicate that a risk of material misstatement due to fraud is present. In doing this:

- We performed an inquiry of audit committee members as to fraud risks and related party transactions to identify the areas of their concerns in relation to fraud.
- We inquired with the chief audit executive about fraud cases identified throughout the year and reviewed the reports of the Internal Audit Function relevant to the reporting period. We also assessed the matters reported through the Group's whistleblowing and complaints procedure and results of management's investigation and follow-up on such matters.
- We inquired with Group and local executives and sales managers, 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 IT environment around key systems. We paid specific attention to the access safeguards in the IT system and the possibility that these lead to violations of the segregation of duties.

We identified the following fraud risks and performed the following specific procedures:

Identified fraud risks	*Our audit work and observations*
Risk of management override of controls It is generally presumed that management is in a unique position to perpetrate fraud because of the available opportunity to manipulate accounting records and prepare fraudulent financial statements by overriding manual controls, such as those related to journal entries, related party transactions, significant accounting estimates, etc. Adjusted EBITDA and adjusted EBITA are key financial measures that the executive management and Directors use to assess the performance of the Group. Adjusted EBITA and adjusted operating cash flow are also a key financial target for executive management. Focus on meeting financial targets could provide to management an incentive for bypassing of controls.	• Where relevant to our audit, we evaluated the design and effectiveness of controls in the processes of generating and processing journal entries. We assessed whether deficiencies in controls may create additional opportunities for fraud and incorporated respective corroborative procedures in our audit approach. We paid specific attention to non-routine transactions and areas of significant management judgement. We also paid specific attention to the access safeguards in the IT system, possibility of functional segregation and together with management followed up on business rationale for conflicting user rights granted within the IT environment. We considered the outcome of our audit procedures over the estimates and significant accounting areas and assessed whether control deficiencies and misstatements identified could be indicative of fraud. Where necessary, we planned and performed additional auditing procedures to ensure that fraud risks are sufficiently addressed in our audit. We evaluated key accounting estimates and judgements used in accounting areas where management judgement is applied (e.g., timing of acquisition of group companies, valuation of provisions) for biases, including retrospective reviews of prior year's estimates where available.

Identified fraud risks	*Our audit work and observations*
	We performed data analysis focused on journal entries related to the fraud risk factors identified during our fraud risk assessment. Where we identified instances of unexpected journal entries, we performed audit procedures. We evaluated whether the business rationale (or lack thereof) of the significant transactions concluded in 2022 suggests that the Group may have entered into those to engage in fraudulent financial reporting or to conceal misappropriation of assets. We incorporated an element of unpredictability in the nature, timing, and extent of audit procedures. We performed substantive testing procedures over the consolidation entries. Our audit procedures did not identify indications of specific fraud or suspicions of fraud with respect to management override of controls.
Risk of fraud in revenue recognition As part of our risk assessment and based on a presumption that there are risks of fraud in revenue recognition, we considered the risk of fraud in revenue recognition. This relates to the presumed management incentive that exists to overstate revenue in order to meet financial targets, guidance provided to the market or shareholder expectations. In this context, we consider this as a risk of fraud focused to overstate revenue through the recording of non-existent transactions.	We discussed and inquired with the audit committee and executive management about their views on overall fraud risks within the Group, their perspectives on the Group's mitigating controls addressing the risk of fraud in revenue and whether they have any knowledge of (suspected) fraud. Where relevant to our audit, we have evaluated the design of the internal control measures that are intended to mitigate the risk of fraud and error in revenue recognition and assessed the effectiveness of those measures. We also paid specific attention to the processes surrounding the relevant IT systems. Through data analysis, we tested both expected and unexpected journal entries and performed relevant testing on revenue transactions throughout the year and the receivable balances at year end. We did not identify specific indications of fraud or suspicion of fraud in respect of revenue recognition.

We reviewed lawyer's letters and correspondence with regulators. During the audit we remained alert to indications of fraud. We also considered the outcome of our other audit procedures and evaluated whether any findings were indicative of fraud or non-compliance of laws and regulations. Whenever we identify any indications of fraud, we re-evaluate our fraud risk assessment and its impact on our audit procedures.

Audit approach going concern

As disclosed in section 'Principles and methods' in the financial statements, management prepared the financial statements on the assumption that the entity is a going concern and that it will continue all its operations for at least 12 months from the date of preparation of the financial statements. Our procedures to evaluate the board of directors' going-concern assessment included, amongst others:

- Review of management's going-concern assessment and sensitivity analysis. We corroborated management's analysis with the approved budget 2023 and facts and circumstances that came to our attention from our auditing procedures.
- Inquiries of corporate and local management as to their knowledge of going-concern risks beyond the period of management's assessment.
- Review of management's analysis of the forecasted levels of net debt, available undrawn borrowing facilities, compliance with debt covenants and the debt maturity profile.
- Corroboration of consistency between management's going-concern analysis, the analysis of the forecasted levels of net debt with the future cash flow forecast as incorporated in the goodwill impairment test. In evaluating management's forecasts and cash flows we performed a look-back analysis to assess the accuracy of the forecasting process.
- An analysis of the financial position at balance sheet date in comparison to prior year's year end to assess whether events or circumstances exist that may lead to a going-concern risk.
- Consideration of the potential indications of the component's going-concern uncertainty based on audit procedures performed by the component auditors. We evaluated the impact of such indications on the overall use of the going-concern assumption applied by the Group.

Our procedures did not result in outcomes contrary to management's assumptions and judgements used in the application of the going concern assumption.

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.

Key audit matter	*Our audit work and observations*
Recognition and valuation of tax positions *Refer to note 3, 4, 14 and 39 of the consolidated financial statements* The Group recorded deferred tax assets for tax losses carried forward for the amount of €68.8 million. Reference is made to note 14 of the financial statements. Deferred tax assets are capitalised based on the assumption that sufficient taxable income will be generated against which losses carried forward and other deductible temporary differences can be offset. This assumption is based on estimates of the current and the estimated taxable results, and any future measures implemented by the Company in several jurisdictions concerned that will have an effect on income tax, 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. As described in Note 39 of the financial statements the Group is also a party to several tax proceedings in Brazil which involve estimated contingent liabilities amounting to € 243.0 million. Given that the tax legislation in Brazil is complex and unpredictable this could give rise to significant uncertainties and the Company's estimate of tax liabilities may differ from interpretations by the relevant tax authorities as to how regulations should be applied to actual transactions. Judgement is therefore required by management to determine whether it is probable that an uncertain tax position should be recognised and or will not be sustained. Judgement is required by management in determining the degree of probability of an unfavourable outcome for non-income tax claims and the ability of management to make a reasonable estimate of the amount of loss. Due to the inherent level of uncertainty, significant judgement involved, potential limitations in the recoverability of deferred tax assets and uncertain tax positions, we considered the valuation of tax positions to be a key audit matter for our audit.	• With regard to recognition and valuation of deferred tax assets we have requested and obtained evidence for the existence and accuracy of the tax losses carried forward and assessed the expiration dates per jurisdiction. Where there was uncertainty around the acceptance of losses by the tax authorities, we requested, received and read tax opinions from the Group's tax advisors. In auditing recoverability, 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 carry-forward period together with any applicable restrictions in recovery for each individual jurisdiction. With regard to recognition and valuation of uncertain tax positions we have requested and obtained management's valuation of tax positions, reviewed correspondence with the tax authorities, independent legal and tax opinions and latest available tax filings. We also corroborated tax assessment with the group management and local auditors. We analysed the outcomes of resolution of tax disputes within territory (Brazil) where uncertain tax positions were identified. Where significant management estimates and judgements involved are susceptible to management bias, we have critically reviewed the underlying facts to assess recognition and assessed the recoverability of the deferred tax assets and uncertain tax positions. Based on the audit procedures performed, we found the Group's estimates and judgement used in the recognition and valuation of tax positions to be supported by the available evidence. We assessed and corroborated the adequacy and appropriateness of the disclosures made in the consolidated financial statements.
Valuation of goodwill and other intangible assets *Refer to note 3, 4, and 17 of the consolidated financial statements* The Group capitalised goodwill of €136.9 million, mainly related to the acquisition of the Magnesita Group in 2017 with new acquisitions in 2022 increasing goodwill by €20.6 million. In addition, the Company capitalised other intangible assets of €316.6 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 of 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 analysis are carried out regarding any accounting effects. The	• 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, recalculate the recoverable amount, test for impairment, recalculate 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. Given that the areas where significant management estimates and judgements involved are susceptible to management bias and creates opportunities for fraud, we, with the support of our valuation specialists, have evaluated management's assumptions such as revenue and margin, the discount rate, terminal value, operational and capital expenditure. We have

assessment did not result in an impairment.

As disclosed in note 4 of the financial statements, the Group has considered the long-term impact of climate change, in particular by considering a long-term growth rate in the estimation of the terminal value in line with the change in steel and cement demand based on the specific characteristics of the businesses involved. Management also considered the potential impact of the CBAM regulation on its assets located within Europe and is currently assessing the strategy and options to maximise the opportunities and minimise the impact of this regulation.

In the 'Principal risks' section of the annual report, management acknowledges the potential impact of climate related risks on its business strategy and committed €9 million investments in the next three-year R&D program to pilot new sustainable production technologies. This is not expected to have a material impact on the impairment assessment of goodwill.

We identified the impairment assessment as a key audit matter due to significant estimates and assumptions about the discount rates, profitability and growth rates.

obtained corroborative evidence for these assumptions. We performed analysis to assess the reasonableness of forecasted revenues and margins and obtained further explanations when considered necessary. We also compared the forecast to prior year's forecast and actuals. We compared the long-term growth rates used in determining the terminal value with economic and industry forecasts. We have reperformed 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. Finally, we assessed the appropriateness of the 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

The annual report contains other information. This includes all information in the annual report in addition to the financial statements and our auditor's report thereon.

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; and
- contains all the information regarding the directors' report and the other information that is required by Part 9 of Book 2 and regarding the remuneration report required by 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 the 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 procedures performed in our audit of the financial statements, except for the audit performed on information in the remuneration report marked 'audited'.

The board of directors 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. The board of directors is responsible for ensuring that the remuneration report is drawn up and published in accordance with sections 2:135b and 2:145 subsection 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements and ESEF

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 the shareholders and now represents a total period of uninterrupted engagement of six years.

European Single Electronic Format (ESEF)

RHI Magnesita N.V. has prepared the annual report, including the financial statements, in ESEF. The requirements for this format are set out in the Commission Delegated Regulation (EU) 2019/815 with regard to regulatory technical standards on the specification of a single electronic reporting format (these requirements are hereinafter referred to as: the RTS on ESEF).

In our opinion, the annual report prepared in XHTML format, including the partially marked-up consolidated financial statements, as included in the reporting package by RHI Magnesita N.V., complies, in all material respects, with the RTS on ESEF.

The board of directors is responsible for preparing the annual report, including the financial statements, in accordance with the RTS on ESEF, whereby the board of directors combines the various components into a single reporting package. Our responsibility is to obtain reasonable assurance for our opinion on whether the annual report in this reporting package complies with the RTS on ESEF.

Our procedures, taking into account Alert 43 of the NBA (Royal Netherlands Institute of Chartered Accountants), included amongst others:

- Obtaining an understanding of the entity's financial reporting process, including the preparation of the reporting package.
- Obtaining the reporting package and performing validations to determine whether the reporting package, containing the Inline XBRL instance document and the XBRL extension taxonomy files, has been prepared, in all material respects, in accordance with the technical specifications as included in the RTS on ESEF.
- Examining the information related to the consolidated financial statements in the reporting package to determine whether all required mark-ups have been applied and whether these are in accordance with the RTS on ESEF.

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 or its controlled entities, for the period to which our statutory audit relates, are disclosed in note 41 to the financial statements.

Responsibilities for the financial statements and the audit

Responsibilities of the board of directors for the financial statements

The board of directors is responsible for:

- the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code; and for
- such internal control as the board of directors 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, the board of directors is responsible for assessing the Company's ability to continue as a going-concern. Based on the financial reporting frameworks mentioned, the board of directors should prepare the financial statements using the going concern basis of accounting unless the board of directors either intends to liquidate the Company or to cease operations or has no realistic alternative but to do so. The board of directors should disclose in the financial statements any event and circumstances that may cast significant doubt on the Company's ability to continue as a going concern.

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 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.

Rotterdam, 26 February 2023
PricewaterhouseCoopers Accountants N.V.

Original has been signed by A. F. Westerman RA

Appendix to our auditor's report on the financial statements 2022 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 the board of directors.
- Concluding on the appropriateness of the board of directors' use of the going-concern basis of accounting, and based on the audit evidence obtained, concluding whether a material uncertainty exists related to events and/or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report and are made in the context of our opinion on the financial statements as a whole. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures, and evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Considering our ultimate responsibility for the opinion on the consolidated financial statements, we are responsible for the direction, supervision and performance of the group audit. In this context, we have determined the nature and extent of the audit procedures for components of the Group to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole. Determining factors are the geographic structure of the Group, the significance and/or risk profile of group entities or activities, the accounting processes and controls, and the industry in which the Group operates. On this basis, we selected group entities for which an audit or review of financial information or specific balances was considered necessary.

We communicate with the 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")

Definitions of APMs used by the Group are set out below, including the purpose and usefulness of each APM and a reconciliation to the nearest IFRS equivalent measure, or a reference to a reconciliation appearing elsewhere in this document. In general, APMs are presented externally to meet investor and analyst requirements for clarity and transparency of the Group's underlying financial performance. APMs are also used internally in the management of the Group's business performance, budgeting and forecasting. APMs are non-IFRS measures which enable investors and other readers to review alternative measurements of financial performance but they should not be used in isolation from the main financial statements. Commentary within the Annual Report, 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 and context affecting the Group's financial performance. Readers are strongly encouraged not to rely on any single financial measure and to carefully review the Group's reporting in its entirety.

Performance APMs

Adjusted EBITDA

Adjusted EBITDA is a key non-IFRS measure that the CEO, EMT and Directors use internally to assess the underlying financial performance of the Group and is viewed as relevant to capital intensive industries. The ratio of Net Debt to Adjusted EBITDA is used as a measure of financial gearing.

Adjusted EBITDA is defined as EBIT, as presented in the Consolidated Statement of Profit or Loss, before amortisation, depreciation, and Excluded items (see definition below).

Adjusted EBITA

Adjusted EBITA is a key non-IFRS measure that the CEO, EMT and Directors use internally to assess the underlying performance of the Group.

It is determined consistently with Adjusted EBITDA, but includes depreciation expense of property, plant and equipment to reflect the wear and tear cost and future replacement of productive assets on the Group.

Adjusted EPS

Adjusted EPS is a key non-IFRS measure and one of the Group's KPIs (as reflected on **pages 26 and 27**). It is used to assess the Group's underlying operational performance, post-tax and non-controlling interests on a per share basis.

This measure is based on Adjusted EBITA after finance income and expenses, taxes, share of profit or loss from associates and joint ventures and non-controlling interest. Share of profit or loss from associates and joint ventures is adjusted to exclude impairments and gains or losses recognised on disposals.

It excludes finance income and expenses, including foreign exchange, that are not directly related to operational performance. This includes the non-cash present value adjustments for the unfavourable contract that was required to satisfy EU remedies put in place at the time of the RHI and Magnesita merger in 2017.

Taxes are adjusted to remove the impacts of items already excluded as well as certain tax impacts that do not affect the underlying performance of the business.

Excluded items

Items that are excluded (Excluded items) in arriving at the Group's Adjusted measures of Adjusted EBITA, EBITDA and EPS include:

Other income, other expenses and Restructuring expenses as reflected on the Statement of Consolidated Profit and Loss as well as gains and losses within Interest income, interest expenses and other net financial expenses that are regarded as not reflective of the underlying operational performance of the business. Excluded items includes impairments of property, plant and equipment, goodwill, intangibles and investments in equity accounted units, restructuring related provisions, gains/losses from the disposal of assets, subsidiaries, associates and joint ventures. The tax impacts of the above Excluded Items as well as one-off tax income/expenses not affecting pre-tax profit, such as the accounting one-off impacts of changes in tax rates, are also adjusted for.

Cash flow performance measures

Operating Cash flow and Free cash flow

Adjusted operating cash flow is a key non-IFRS measure used by management and the directors to reflect the operational cash generation capacity of the Group before the cash impacts of Excluded Items (see definition above).

It is defined as Adjusted EBITDA adjusted for working capital items, changes in other assets and liabilities and capital expenditure and other non-cash items, such as share based payments. This APM is reconciled to Net Cash flow from operating activities as follows:

€m	2022	2021
Adjusted operating cash flow (APM)	154.7	(254.4)
Add: Capital expenditure[1]	156.7	252.1
Less: Income Taxes paid[1]	(53.7)	(38.6)
Other income/expenses and restructuring items[1]	(23.8)	(51.0)
Net cash flow from operating activities[1]	**233.9**	**(91.9)**

1. As reflected in the Consolidated Statement of Cash Flows.

Free cash flow is a key non-IFRS measure used by management and the Directors to reflect the cash flow generated by the business that is available for debt repayments, dividend distributions, share buy-backs and investments and excludes cash flows from the acquisition or disposal of businesses.

Free cash flow is determined from the IFRS measures of Net cash flow from operating activities, net cash used In investing activities and net cash (used in)/provided by financing activities and excludes the cash impacts of purchases and disposals of business and subsidiaries, dividends paid to equity shareholders of the Group, share capital transactions with shareholders, proceeds and repayment of borrowings and current borrowings and repayment of leases.

Free cash flow is reconciled to Cash changes in net debt (**page 204**; note 34) and then to Change in cash and cash equivalents, in the Net Debt APM on **page 204**.

Alternative performance measures ("APMs") continued

Balance sheet

Liquidity

Liquidity comprises cash and cash equivalents, short term marketable securities and undrawn committed credit facilities.

€m	2022	2021
Cash and cash equivalents[1]	520.7	580.8
Add: Revolving credit facility (RCF)	600.0	600.0
Liquidity (APM)	**1,120.7**	**1,180.8**

1. As reflected in the Consolidated Statement of Financial Position.

Net Debt

Net debt is the excess of current and non-current borrowings, associated debt derivatives for which hedge accounting is applied and lease liabilities over cash and cash equivalents and short-term marketable securities. The Board uses this measure for the purposes of capital management. A reconciliation of net debt is included in note 34 to the Consolidated Financial Statements on **page 204**.

€m	2022	2021
Cash changes in net debt	**(81.7)**	**(415.5)**
Proceeds from borrowings[1]	344.4	516.1
Repayment of borrowings[1]	(278.0)	(112.7)
Change in current borrowings[1]	(13.9)	5.5
Repayment of lease obligations[1]	(20.6)	(16.3)
Change in cash and cash equivalents[1]	**(49.8)**	**(22.9)**

1. As reflected in the Consolidated Statement of Cash Flows.

Working capital

Working capital intensity provides a measure of how efficient the Company is in managing operating cash conversion cycles. It is measured as the percentage of working capital to the last three months annualised revenues. Working capital consists of inventories, trade receivables, trade payables and other receivables and payables.

€m	2022	2021
Inventories (Note 21)	**1,049.2**	**976.5**
Trade receivables (Note 22)	433.4	403.7
Contract assets (Note 22)	3.5	3.6
Contract liabilities (Note 32)	(61.8)	(57.9)
Accounts receivables	**375.0**	**349.4**
Trade payables (Note 32)	**(506.5)**	**(649.2)**
Total working capital	**917.7**	**676.7**

Return on invested capital (ROIC)

ROIC reflects the annualised return on invested capital of the Group. It is calculated as NOPAT (net operating profit after tax) divided by total invested capital at the balance sheet date.

€m	2022	2021
Revenue[1]	**3,317.2**	**2,551.4**
Cost of sales[1]	(2,553.8)	(1,967.9)
Selling and marketing expenses[1]	(131.3)	(108.1)
General and administrative expenses[1]	(277.2)	(217.4)
Income taxes paid[2]	(53.7)	(38.5)
NOPAT	**301.2**	**219.5**

1. As reflected in the Consolidated Statement of Profit and Loss.
2. As reflected in the Consolidated Statement of Cash Flows.

Invested Capital €m	2022	2021
Goodwill[3]	**136.9**	**114.4**
Other intangible assets[3]	316.6	282.6
Property, plant and equipment[3]	1,203.7	1,089.7
Investments in joint ventures and associates[3]	5.7	5.7
Other non-current assets[3]	**40.0**	**41.2**
Deferred tax assets[3]	**128.2**	**202.4**
Inventories[3]	**1,049.1**	**976.5**
Trade and other receivables[3]	**578.9**	**568.2**
Income tax receivables[3]	**38.7**	**35.1**
Deferred tax liabilities[3]	**(62.0)**	**(48.4)**
Trade and other current liabilities[3]	**(780.3)**	**(883.2)**
Income tax liabilities[3]	**(38.3)**	**(38.2)**
Current provisions[3]	**(30.1)**	**(55.0)**
Invested Capital	**2,587.1**	**2,291.0**
Return on invested capital	**11.6%**	**9.6%**

3. As reflected in the Consolidated Statement of Financial Position.

Glossary

AC	Audit & Compliance Committee
AFM	Dutch Authority for the Financial Markets
AGM	Annual General Meeting
AI	Artificial Intelligence
APM	Alternative Performance Measures
APO	Automated Process Optimisation
ARO	Automated Refractory Optimisation
ANKRAL LC	RHI Magnesita low-carbon product series, which is designed to support customers as they reduce emissions in their supply chain
ANKRAL X	RHI Magnesita product series, which combines clinker melt resistance with flexibility
BF	Blast Furnace
BOF	Basic Oxygen Furnace
BST	Broadband Spectral Thermometer
CAE	Chief Audit Executive
CAGR	Compound Annual Growth Rate
capex	Capital Expenditure
CBAM	European Carbon Border Adjustment Mechanism
CCO	Chief Customer Officer
CCUS	Carbon Capture, Utilisation & Storage
CDC	Centers for Disease Control and Prevention
CDP	Global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts
CEO	Chief Executive Officer
CERO	Continuous Economic Recycling Optimisation
CETAS	Centro de Triagem de Animais Silvestres (Wild Animal Triage Centre)
CFO	Chief Financial Officer
CIA	Certified Internal Audit
CMS	Compact Membrane Systems
CO	Carbon monoxide
CO_2	Carbon dioxide
CoGS	Cost of Goods Sold
COP 27	The 2022 United Nations Climate Change Conference
COVID-19	Coronavirus disease 2019
CSC	Corporate Sustainability Committee
CIS	Commonwealth of Independent States
CREST	Certificateless Registry for Electronic Share Transfer
CRMA	Certified Risk Management Assurance
CRU	A business intelligence company with focues on mining, metals and fertilizers markets.
CSC	Corporate Sustainability Committee
CSR	Corporate Social Responsibility
CSRD	Corporate Sustainability Reporting Directive
CTO	Chief Technology Officer
DACH	Three Central European countries of Germany (D), Austria (A), and Switzerland (CH)
DBM	Dead Burned Magnesia
DBRL	Dalmia Bharat Refractories Limited
DCGC	Dutch Corporate Governance Code 2016
DNSH	Do-No-Significant-Harm criteria
DRI	Direct Reduced Iron
DTR	Disclosure & Transparency Rules (UK)
EAF	Electric Arc Furnace
EBIT	Earnings Before Interest and Taxes
EBITA	Earnings Before Interest, Taxes and Amortisation
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortisation
EEC	Environment, Energy and Chemicals
ED	Executive Director
EMLI	Electromagnetic Level Indicator
EMT	Executive Management Team
EPS	Earnings Per Share
ERD	Employee Representative Director
ERP	Enterprise Resource Planning system
ESG	Environmental Social Governance
ETR	Effective Tax Rate
ETS	Emissions Trading Schemes
EUETS	EU Emissions Trading Schemes
EU	European Union
EXW	Ex Works.
FRC	UK Financial Reporting Council
FTSE	Financial Times Stock Exchange
FX	Foreign Exchange Market
GAAP	Generally Accepted Accounting Principles
GHG	Greenhouse Gas Protocol
GRI	Global Reporting Initiative
HSMS	Health & Safety Management System
IAS	International Accounting Standards
IEA	International Energy Agency
IFRS	International Financial Reporting Standards

Glossary continued

IMS	Integrated Management System
IPCC	Intergovernmental Panel on Climate Change
IPO	Initial Public Offering
ISO	Isostatically pressed
ISSB	International Sustainability Standards Board
Ktpa	Thousand tonnes per annum
KPI	Key Performance Indicator
LES	Lining Evaluation Scan
LPG	Liquefied Petroleum Gas
LTIFR	Lost Time Injury Frequency rate
LTIP	Long-Term Incentive Plan
MAR	Market Abuse Regulations
M&A	Mergers and Acquisitions
MES	Manufacturing Execution Systems
MIRECO	Horn & Co. RHIM Minerals Recovery GmbH
MOE	Molten Oxide Electrolysis
MOF4AIR	A H2020 project gathering 14 partners from 8 countries to develop and demonstrate the performances of MOF-based CO_2 capture technologies
MSCI	Morgan Stanley Capital International
MSS	Minimum Social Safeguards
NACE	the statistical classification of economic activities in the European Community
NAM	one of the RHIM strategic regions including North America and Central America
NCI	Non-Controlling Interest
NED	Non-Executive Directors
NFM	Non-Ferrous Metals
NG	Natural Gas
NGO	Non-governmental Organisation
NMEA	Near Middle East and Africa
NOx	Nitrogen oxides
NOPAT	Net Operating Profit After Tax
NPS	Net Promoter Score
OCF	Operating Cash Flow
OeKB	Oesterreichische Kontrollbank AG
OIE	Other Income and Expenses
OMV	Austrian petroleum company — OMV AG
ONS	UK office for National Statistics
OT	Operations Technology
PCF	Product Carbon Footprint
PET	Polyethylene terephthalate
PIFOT	Process In Full On Time
PPE	Property Plants & Equipment / Personal Protective Equipment
PROIL	A digital solution offered by RHIM that optimises steel or metal flow to reduce scrap rate and achieve higher quality, improve energy and CO_2 efficiency
PVA	Present Value Adjustment
R&D	Research & Development
RD&I	Research Development & Innovation
RCF	Revolving Credit Facility
RCP	Representative Concentration Pathway
ROIC	Return On Invested Capital
RFID	Radio Frequency Identification
SAM	One of the RHIM strategic regions: South America
SAR+	Refractory Application System
SDGs	United Nations Sustainable Development Goals
SFDR	Sustainable Finance Disclosure Regulation
SG&A	Selling, General and Administrative Expenses
SMART	SMART maintenance is a concept proposed by RHIM whereby maintenance can be fully automated and centralised into a global system
SOx	Sulphur oxides
SÖRMAŞ	Söğüt Refrakter Malzemeleri Anonim Şirketi
SRM	Secondary Raw Materials
SSP	Shared Socio-economic Pathway
STEM	Science, Technology, Engineering and Mathematics
TCFD	Task Force on Climate-related Financial Disclosures
TRACE	A leading anti-bribery standard-setting organisation.
TRIF	Total Recordable Injury Frequency
TRL	Technology Readiness Level
TSR	Total Shareholder Return
UK	United Kingdom
UKCGC	UK Corporate Governance Code 2018
UN	United Nations
US / USA	United States of America
VISIR	A digital solution offered by RHIM that measures residual thickness of ladle working lining.
WHO	World Health Organization
WRA	World Refractories Association
WSA	World Steel Association

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 Prime Segment of the Vienna Stock Exchange (Wiener Börse).

Ticker symbol: RHIM
ISIN Code: NL 0012650360

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 **here** contains details. 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:

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Financial calendar

Q1 Trading Update	5 May 2023
Annual General Meeting	24 May 2023
Half Year Results	26 July 2023

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