Heidelberg Materials

Annual and Sustainability Report 2022

Heidelberg Materials

With our new and global corporate brand Heidelberg Materials, we are giving our transformation a face and an anchor. At the same time, we remain true to the "Heidelberg" in our name – a 150-year legacy synonymous with **reliability**, **down-to-earthness**, and **market leadership**. With "Materials," we look to the future – more than cement, sustainable, with a focus on the circular economy. A team that achieves the best results based on its global strength.

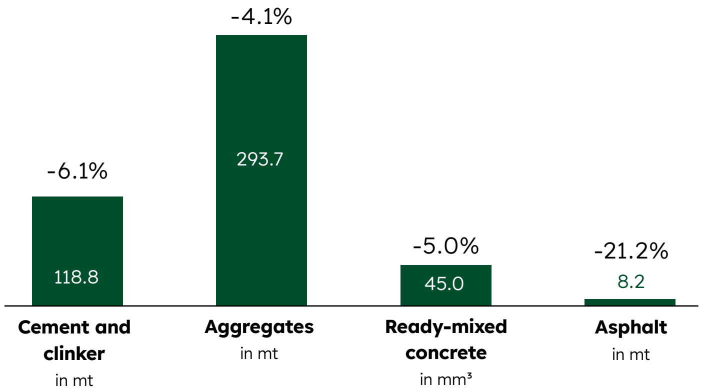
Let us therefore use our joint efforts to take a pioneering role in the **reduction of CO_2 emissions**. To drive the **circular economy** in the construction industry. To open up new opportunities for our customers through digitalisation. To evelop intelligent and sustainable building materials and to continue to grow profitably in the process.

It is therefore consistent to combine the **Annual Report and Sustainability Report** this year, giving you insight into both our financial development and our commitment to environmental, social and governance (ESG) matters. In the following chapters, we report on our activities in 2022, taking into account reporting standards such as GRI, HGB, IFRS, SASB, and TCFD.

Our 2022 business year

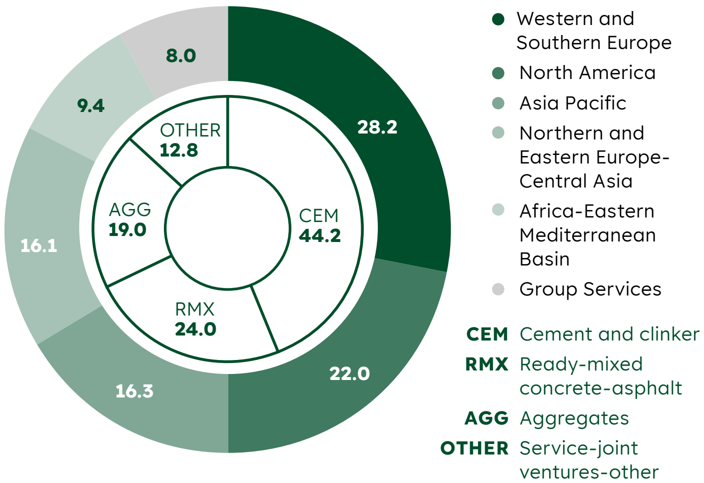
Sales

Development of sales volumes



Revenue by Group areas and business lines in %

Business trend in the Group areas



CO_2 emissions -2.4%

Climate, energy, and emissions

CO_2

551 kg

specific net CO_2 emissions per tonne of cementitious material (scope 1)

Carbon Capture, Utilisation, and Storage

Our CCUS project portfolio

CO_2

2024 Brevik CCS

Our carbon capture project in Norway will be the world's first industrial-scale CCUS project in a cement plant.

Employees -429 FTE

Our employees

50,780

employees at around 3,000 locations in more than 50 countries.

Revenue +12.7%

Earnings position

€21.1 bn

RCO -5.3%

Earnings position

€2.5 bn

Earnings per share

Us in the capital market

€8.45

ROIC -0.2 percentage points

Consolidated balance sheet

9.1%

Contents

1) Part of the combined management report of the Group and HeidelbergCement AG

To our stakeholders

Dr Dominik von Achten
Chairman of the Managing Board

On course for a sustainable future

Heidelberg,
23 March 2023

Dear Shareholders,
Dear Readers,

The events of the past year have reminded us that change is the new normal. It's now three years since the coronavirus pandemic began. For more than a year, a war has been raging in Europe that has radically changed our world order. The resulting energy crisis and the impact of the associated supply bottlenecks and rising raw material prices have created great uncertainty in the economy and society as a whole.

Although 2022 was not an easy year for Heidelberg Materials either, it was still a successful one. Massively rising energy and raw material prices took their toll on construction activity and demand for our building materials. Nevertheless, necessary and effective price adjustments helped us to achieve a significant increase in revenue of 12.7% to reach an all-time high of €21.1 billion.

We are proud that, despite enormous additional expenses, we only experienced a 5.3% decline in the result from current operations to €2.5 billion. This is due in no small part to our continued cost discipline and the tremendous commitment of our global teams. My sincere thanks must go to our 51,000 colleagues as, without their exceptional efforts and unwavering passion, a development like this would not have been possible.

However, financial key figures aren't the only way we can measure our performance in the past business year. Our achievements and progress in the field of sustainability are equally important. We want our building materials to be used to create intelligent, resilient, and sustainable buildings as well as infrastructure for tomorrow – and we want to keep the ecological footprint associated with their production as small as possible. To underline the importance of sustainability to our business success, we are publishing a combined Annual and Sustainability Report for the first time and underpin our commitment to the United Nations Global Compact, whose ten principles relating to human rights, labour standards, the environment, and corruption prevention serve as key guidelines for our entrepreneurial activity.

Heidelberg Materials – our new global brand

You'll notice that this report also has a fresh look. In September 2022, we introduced "Heidelberg Materials," our first global brand in our 150-year history, and work is now underway to gradually roll it out to all Group countries. Our new brand identity will allow us to take full advantage of our organisation's strengths and represent our positions consistently, both internally and externally. The fact that our colleagues in the Group's more than 50 countries have responded so positively to our new brand is proof of the great sense of cohesion felt by the Heidelberg Materials team worldwide, I'm personally very pleased of that.

We continue to drive our industry's transformation

We have the ambition, the speed, the knowledge, the technologies, and the partners to lead the necessary process of transformation in our sector. Our focus is on expanding our portfolio of sustainable products, rapidly and significantly reducing our CO_2 emissions, proving that the production of carbon-neutral products is possible on a large scale, and creating a circular economy by rigorously implementing the principle of circularity. Our recently tightened Sustainability Commitments 2030 underscore this ambition.

"We must take the entire value chain into account if we're to achieve climate neutrality."

Dr Dominik von Achten

We continue to make good progress towards net zero. We succeeded in reducing our specific net CO_2 emissions by a further 2% in the 2022 financial year. But we must take the entire value chain into account, from raw materials to reuse, if we're to achieve climate neutrality. That's why we pushed ahead our recycling activities, a particular focus of our portfolio optimisation in 2022. By acquiring recycling companies in Germany, the UK, and the USA, we have taken another important step towards implementing our circular economy strategy.

CCUS roadmap as the key to decarbonisation

On our journey towards climate-neutrality, CCUS – carbon capture, utilisation, and storage – is a crucial tool for us as a building materials manufacturer when it comes to dealing with the raw material-related process emissions that have been unavoidable up to now. As early as next year, 2024, we will put the world's first industrial-scale carbon capture facility at a cement plant into operation in Brevik, Norway. This will make us a front runner in the use of this key technology for decarbonising our industry.

With a portfolio of nine innovative, industrial-scale CCUS projects to date, we are continuing to expand our pioneering role. In 2022, we launched our largest CCUS project so far in Mitchell, USA, which will have the capacity to capture approximately 2 million tonnes of CO_2 per year. In early 2023, we announced two more major CCUS projects. At our plant in Antoing, Belgium, we will build a state-of-the-art hybrid carbon capture facility that will help us to reduce our CO_2 emissions by 800,000 tonnes. We're planning the same capacity at our plant in Devnya, Bulgaria. Both projects are scheduled to start in 2028.

Digitalisation and sustainability go hand in hand

We're also forging ahead with our digital transformation. In 2022, as well as taking advantage of digitalisation to pursue the continuous improvement of our business processes, we invested in the Canadian technology company Giatec Scientific. Together with our new partner, we are accelerating the development and launch of industry-leading sensor technology and AI-driven software, with the clear targets of reducing the carbon footprint of concrete and optimising processes for ready-mixed concrete customers.

Shareholders in focus

Heidelberg Materials continues to pursue a progressive dividend policy. We will therefore propose to the Annual General Meeting the distribution of a dividend of €2.60 per share. Overall, we again spent around €1 billion on dividends and share buybacks in the past financial year. I am very pleased that you, our shareholders, can once more participate to a large extent in our good result.

Dear shareholders, customers, suppliers and business partners, employee representatives, and employees: Heidelberg Materials is in an excellent position to continue to grow profitably while contributing to a sustainable future.

Thank you for your trust and great support as we progress on our journey. I'm convinced that together, we will successfully bring about the transformation.

Yours sincerely,

Dr Dominik von Achten

Chairman of the Managing Board

Heidelberg Materials: the Managing Board in the 2022 financial year

(from left to right) **Hakan Gurdal, Dennis Lentz, Kevin Gluskie, Dr Nicola Kimm, Dr Dominik von Achten, René Aldach, Chris Ward, Jon Morrish, Ernest Jelito**

Dr Dominik von Achten
Chairman of the Managing Board

Member of the Managing Board since: 2007
Appointed until: January 2025
Nationality: German
Year of birth: 1965

René Aldach
Chief Financial Officer

Member of the Managing Board since: 2021
Appointed until: August 2024
Nationality: German
Year of birth: 1979

Kevin Gluskie
Asia-Pacific

Member of the Managing Board since: 2016
Appointed until: January 2024
Nationality: Australian
Year of birth: 1967

Hakan Gurdal
Africa-Eastern Mediterranean Basin

Member of the Managing Board since: 2016
Appointed until: January 2024
Nationality: Turkish
Year of birth: 1968

Ernest Jelito
Northern and Eastern Europe-Central Asia

Member of the Managing Board since: 2019
Appointed until: December 2023
Nationality: Polish and German
Year of birth: 1958

Dr Nicola Kimm
Chief Sustainability Officer

Member of the Managing Board since: 2021
Appointed until: August 2024
Nationality: Canadian and German
Year of birth: 1970

Dennis Lentz
Chief Digital Officer

Member of the Managing Board since: 2021
Appointed until: August 2024
Nationality: German
Year of birth: 1982

Jon Morrish
Western and Southern Europe

Member of the Managing Board since: 2016
Appointed until: January 2024
Nationality: British
Year of birth: 1970

Chris Ward
North America

Member of the Managing Board since: 2019
Appointed until: August 2028
Nationality: US American
Year of birth: 1972

Dr Bernd Scheifele
Chairman of the Supervisory Board

Report of the Supervisory Board

Heidelberg,
22 March 2023

Dear Shareholders,

The financial year 2022 was marked by a difficult geopolitical environment, the resulting sharp rise in energy and raw materials prices, and a weakening demand in the construction sector. Despite these developments, Heidelberg Materials was able to significantly increase revenue and maintained the result of current operations at a very respectable level.

The company is making great progress in the area of climate protection and is playing a pioneering role in the decarbonisation of the building materials industry. In May 2022, the company adopted the most ambitious climate target in the industry. The portfolio of global Carbon Capture, Utilisation, and Storage (CCUS) projects was successively expanded in the course of the year. In addition, the company has strengthened its offering in circular materials via acquisitions in the recycling sector to meet the growing demand for sustainable building materials.

The new corporate brand Heidelberg Materials helps to coordinate these initiatives worldwide with a uniform appearance and drive them forward with great vigour. The Supervisory Board accompanies the Managing Board on this path and sees that the company is well positioned for future challenges.

Consultation and monitoring

The Supervisory Board continued to closely monitor and support the company's development during the past financial year and discuss it with the Managing Board at the ordinary and extraordinary meetings of the plenary session and its committees as well as through contact outside the scheduled meetings. It also received regular, timely, and comprehensive reports, both in writing and verbally, about all matters of relevance to the company, particularly the intended business policy, strategy and planning, the progress of businesses, the financial situation, the risk situation and risk management, compliance, innovations, and sustainability. The Supervisory Board reviewed, discussed, and analysed the Managing Board's reports in detail. The Managing Board agreed on the Group's strategy with the Supervisory Board. All deviations of the actual business development from the plans were explained in detail by the Managing Board. The Supervisory Board was directly involved at an early stage in all decisions of fundamental importance to the Group. A catalogue drawn up by the Supervisory Board, which is reviewed regularly and adjusted as necessary, outlines transactions and measures of fundamental importance that require the consent of the Supervisory Board. In the reporting year, the Supervisory Board took decisions on the transactions and measures submitted by the Managing Board that required its approval, having first reviewed them and discussed them with the Managing Board. In particular, investment projects and financing matters requiring authorisation were explained in detail by the Managing Board and discussed before decisions were made. In addition, the Supervisory Board has satisfied itself that the Managing Board has installed an internal control and risk management system appropriate to the business activities and risk situation of the company, as well as a functioning monitoring system that is effective and capable of recognising at an early stage any developments that could jeopardise the Group as a going concern. With regard to the accounting-related internal control system and the early risk detection system, the Supervisory Board also had this confirmed by the auditor. Furthermore, it has satisfied itself of the effectiveness of the compliance management programme, which guarantees Group-wide compliance with the law, legality and with internal guidelines. In the relevant meetings, the responsible line managers of the Group below Managing Board level were available together with members of the Managing Board to provide information to the Audit Committee and to answer questions. The Chairman of the Supervisory Board as well as the Chairman and Deputy Chairman of the Audit Committee also discussed topics relating to the audit in detail with the auditor outside the scheduled meetings and without the participation of the Managing Board. In addition, the Chairman of the Supervisory Board was in regular and ad-hoc contact with the Chairman of the Managing Board outside the scheduled meetings.

Overall, the Supervisory Board continuously and thoroughly monitored the work of the Managing Board and provided it with advice, particularly with regard to management matters, strategic alignment and their implementation, and the development of the company. In doing so, it assessed the Managing Board's management of the company in terms of its lawfulness, propriety, expediency, and operating efficiency. The Managing Board and Supervisory Board worked together in a spirit of mutual trust for the benefit of the company and maintained an open and intensive dialogue. In summary, it can be said that the Supervisory Board has again duly and diligently fulfilled the duties incumbent upon it under the law, the Articles of Association, the Rules of Procedure, and the German Corporate Governance Code (with the exception of any declared deviations) in the 2022 financial year.

During the reporting year, the plenary session of the Supervisory Board convened at seven ordinary meetings (31 January, 23 March, twice on 12 May, 18 and 19 September, and 14 November) and one extraordinary meeting (22 March). The number and format of Supervisory Board meetings and committee meetings in the reporting year are shown in the following overview.

Number and type of Supervisory Board and committee meetings

	Type of meeting		
	In person	Conference call and/or video-conference	Total number of meetings
Plenary session of the Supervisory Board	3	5	8
Sustainability and Innovation Committee (since 12 May 2022)	1	0	1
Nomination Committee	0	3	3
Personnel Committee	1	2	3
Audit Committee	1	5	6
Mediation Committee	0	0	0

The average participation rate of all members of the Supervisory Board at the eight plenary sessions of the Supervisory Board in the 2022 reporting year was 97.92%. The average participation rate at all the committee meetings held in the reporting year was 100%.

Participation of the members of the Supervisory Board at the plenary sessions and committee meetings

	Plenary			Committees			Total		
Supervisory Board member	Number	Participation	Rate	Number	Participation	Rate	Number	Participation	Rate
Fritz-Jürgen Heckmann[1], Chairman of the Supervisory Board (until 12 May 2022)	4	4	100%	8	8	100%	12	12	100%
Dr Bernd Scheifele[1], Chairman of the Supervisory Board (since 12 May 2022)	4	4	100%	5	5	100%	9	9	100%
Heinz Schmitt, Deputy Chairman of the Supervisory Board[2]	8	8	100%	9	9	100%	17	17	100%
Barbara Breuninger[2]	8	8	100%	6	6	100%	14	14	100%
Birgit Jochens[2]	8	8	100%	3	3	100%	11	11	100%
Ludwig Merckle[1]	8	8	100%	13	13	100%	21	21	100%
Tobias Merckle[1] (until 12 May 2022)	4	4	100%	–	–	–	4	4	100%
Luka Mucic[1]	8	8	100%	9	9	100%	17	17	100%
Dr Ines Ploss[2]	8	8	100%	4	4	100%	12	12	100%
Peter Riedel[2]	8	8	100%	7	7	100%	15	15	100%
Werner Schraeder[2]	8	8	100%	10	10	100%	18	18	100%
Margret Suckale[1]	8	8	100%	12	12	100%	20	20	100%
Dr Sopna Sury[1] (since 12 May 2022)	4	4	100%	1	1	100%	5	5	100%
Professor Dr Marion Weissenberger-Eibl[1]	8	6	75%	4	4	100%	12	10	83%

1) Shareholder representative
2) Employee representative

Members of the Supervisory Board and its committees are listed in the **Corporate Governance chapter**.

Separate preliminary meetings of the employee representatives were held in connection with the Supervisory Board meetings. In the reporting year, the members of the Managing Board generally attended the meetings of the Supervisory Board, although the Supervisory Board also met regularly and on an ad-hoc basis without the Managing Board to discuss certain agenda items and topics.

Topics of discussion in the meetings of the Supervisory Board and its committees

The **plenary sessions** in the first half of 2022 dealt with, among other things, the auditing and approval of the 2021 annual financial statements and consolidated financial statements, including the non-financial statement, the preparation of the 2021 remuneration report, the approval of the 2022 operating plan, and preparations for the 2022 Annual General Meeting, which was held on a purely virtual basis once again because of the ongoing impact of the coronavirus pandemic. The Supervisory Board and its committees also dealt with the Managing Board's regular reports on the business trend and with corporate governance issues.

During this reporting year, the Supervisory Board continued to place particular emphasis on closely accompanying and supporting the Managing Board on ESG (environmental, social, governance) matters and in the implementation of the sustainability and digital transformation strategy. After expanding the Managing Board in the previous year to include sustainability and digitalisation as areas of responsibility, the Supervisory Board established a new Sustainability and Innovation Committee in the reporting year. This new committee advises the Managing Board on all aspects of sustainability, particularly in connection with the reduction of the company's carbon footprint and the resulting innovation topics and growth opportunities, digital transformation, and other ESG issues. The Supervisory Board also discussed the topics for the Capital Markets Day in May 2022 with the Managing Board, again with a focus on sustainability. The Supervisory Board specifically concerned itself with measures to reduce CO_2 emissions in cement production. These measures include using decarbonised raw materials, reducing the proportion of clinker in cement by using calcined clays, pozzolans, and recycled material, as well as implementing CCUS technologies.

At several meetings, the Supervisory Board also discussed with the Managing Board the major investments, divestments, and portfolio optimisations affecting the strategic targets of Heidelberg Materials and an improvement of the balance sheet structure. Another topic on the agenda was the impact on Heidelberg Materials of the Russian war of aggression against Ukraine. Dealing with the development of energy prices and their impact on the company results was also a regular focus of the Supervisory Board's consultations.

In addition, the agreement of a new sustainability-linked syndicated credit line, the strategy in the North America Group area, restructuring in the United Kingdom, and the introduction of a new ERP (enterprise resource planning) system and related investments were all on the Supervisory Board's agenda. The Supervisory Board discussed the amendments to the German Corporate Governance Code that came into force in the reporting year and revised its profile of skills, Rules of Procedure, and the catalogue of transactions and measures requiring its approval. The updated Rules of Procedure are available on the company's **website**. Finally, the Supervisory Board turned its attention to the new Heidelberg Materials global brand identity during the reporting year and supported the Managing Board's plans in this regard.

Another focus of the Supervisory Board's work was on matters relating to the Managing Board, the 2022 annual bonus plan prepared by the Personnel Committee, and the long-term bonus plan for 2022 to 2024/25.

In the reporting year, the **Audit Committee** dealt extensively with the further development of the company's corporate governance, risk management, and internal control system, including the effectiveness of the compliance management system. In addition, the Managing Board regularly reported to the Supervisory Board and the Audit Committee on the company's measures to further limit the impact of the business model on society and the environment, as well as on the requirements of the EU Taxonomy Regulation for reporting sustainable revenue, investments, and operating expenses.

The company did not issue any new bonds in the reporting year. Heidelberg Materials is ideally prepared to secure financing for its business transactions in the short, medium, and long term with its existing debt instruments. The Supervisory Board acknowledged that the maturity profile of the liabilities shows its usual balanced structure. In January 2023, to refinance the bonds maturing in the 2024 financial year, the company already successfully issued its first sustainability-linked bond with an issue volume of €750 million and a term ending in 2032. The Supervisory Board encouraged the Managing Board in its efforts to keep the leverage ratio in the investment grade range and within the target corridor of 1.5 to 2.0 times the result from current operations before depreciation and amortisation, as defined in the Group strategy.

In its meetings, the Audit Committee dealt with the 2021 annual financial statements and consolidated financial statements as well as the points of focus for the audit, the reports regarding internal audit, risk management, and compliance, the half-year financial report, and quarterly statements for the 2022 financial year. After convincing itself of the auditor's independence and evaluating the quality of the audit, the Audit Committee prepared the Supervisory Board's proposal to the 2022 Annual General Meeting for the appointment of PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (PwC) as the auditor and Group auditor and – after the Annual General Meeting followed this proposal – issued the audit assignment to PwC. In this context, it defined the points of focus for the 2022 audit. The auditors responsible for the consolidated financial statements are Dr Ulrich Störk and Mr Thomas Tilgner.

The Audit Committee also monitored the development of the non-audit services by the auditor and received reports from the Managing Board on the nature and scope of the non-audit services performed by the auditor.

The Audit Committee dealt regularly and intensively with compliance issues in particular. The Group Compliance Officer regularly reported to the committee on his activities and on the status of the compliance management system and its further development. He was also in personal contact with the Chairman of the Audit Committee in the reporting year.

The Chairman of the Audit Committee is Mr Luka Mucic. Mr Mucic, like Audit Committee member Mr Ludwig Merckle, is regarded as a financial expert pursuant to section 100(5) of the German Stock Corporation Act

(Aktiengesetz, AktG). The Supervisory Board is of the opinion that both Mr Mucic and Mr Merckle have expertise in the areas of accounting and auditing. For more information, see the **Corporate Governance statement chapter**.

In the reporting year, the **Personnel Committee** focused on the preliminary discussion and recommendation to the Supervisory Board regarding the determination of the variable Managing Board remuneration for the 2021 financial year and on the definition of parameters for the variable Managing Board remuneration in 2022 and in the years from 2022 to 2024/25, respectively. Finally, the Personnel Committee assured itself that all members of the Managing Board have carried out the required individual investment in HeidelbergCement AG shares as part of the Managing Board remuneration system.

The **Sustainability and Innovation Committee**, which was newly formed in the reporting year, received reports about the Sustainability Office from the Managing Board and dealt with sustainability topics, in particular with regard to the decarbonisation roadmap, ESG benchmarking, and the status and development of the Innovation Hub, a department within the Sustainability Office that brings together and promotes innovative ideas.

Due to the announced resignation from the Supervisory Board of Mr Fritz-Jürgen Heckmann and Mr Tobias Merckle, the **Nomination Committee** discussed the issue of succession in the reporting year. It recommended that the Supervisory Board propose Dr Bernd Scheifele and Dr Sopna Sury to the 2022 Annual General Meeting for election to the Supervisory Board as successors to the two resigning shareholder representatives.

The **Mediation Committee**, formed in accordance with section 27(3) of the German Codetermination Law (MitbestG), did not need to meet.

The results of the committees' meetings were reported at the subsequent plenary sessions.

During the reporting year, there were no potential conflicts of interest of any Managing Board or Supervisory Board member that would have had to be disclosed to the Supervisory Board without undue delay. There were also no consulting or other contracts for services or work between any member of the Supervisory Board and the company in the 2022 reporting year.

In the reporting period, there were no transactions with related parties requiring disclosure within the meaning of sections 111a(1)(2) and 111b(1) of the AktG.

Corporate Governance

The declaration of compliance in the reporting year was submitted by the Supervisory Board on 31 January 2022 and by the Managing Board on 11 February 2022. The declaration of compliance for the current year was submitted by the Managing Board on 13 January 2023 and by the Supervisory Board on 30 January 2023. The complete text can be found in the **Declaration of compliance section** pursuant to section 161 of the AktG in the **Corporate Governance statement chapter**. The current declaration of compliance is made permanently available on the company's **website**.

With regard to its composition and that of the Managing Board, the Supervisory Board thoroughly complies with the guidelines of the German Corporate Governance Code regarding the principles of diversity when appointing corporate bodies and leadership positions within the Group and of section 289f(2)(6) of the German Commercial Code (Handelsgesetzbuch, HGB) (diversity concept). Regarding its own composition, it implements the diversity targets stated in the Code and the profile of skills for the Supervisory Board agreed on 11 September 2017. Detailed information on this topic can be found in the **Corporate Governance statement chapter**.

In March 2020, the Supervisory Board resolved to set the target figure for the proportion of women on the Managing Board to at least one woman for the period from 1 July 2020 to 30 June 2025. With Dr Nicola Kimm as a member of the Managing Board since 1 September 2021, this target was achieved ahead of schedule. The Supervisory Board also welcomes and supports the Managing Board's target of further increasing the proportion of women in management positions in the first and second leadership levels below the Managing Board. For details, please refer to the **Corporate Governance statement chapter**.

With regard to the remuneration for the members of the Managing Board for the 2022 financial year, specifics are included in the **Remuneration report chapter** to avoid repetition. A description of the adjusted version of the Managing Board remuneration system, applicable from 1 January 2021, can also be found here. Having been commissioned to do so by the company, the auditor also carried out the voluntary audit of the correctness of the content of the 2022 remuneration report and issued an unqualified audit opinion. The Supervisory Board examined the remuneration report in detail in the presence of the auditor and approved the report together with the Managing Board. The 2022 remuneration report will be submitted to the 2023 Annual General Meeting for approval and will be available on the company's **website** for ten years.

The members of the Supervisory Board are themselves responsible for obtaining the training required for their tasks and are supported by the company in this respect. The company also offers specific training sessions –

sometimes with external support – for members of the Supervisory Board, most recently in November 2022. These training courses cover topics that are particularly relevant to the company and the work of the Supervisory Board – for example, with regard to legal changes, the selection of suitable investment projects, the ongoing development of the company's antitrust law compliance system, the company's risk management system, the implementation of EU taxonomy, and the changes to the German Corporate Governance Code. If required, new members of the Supervisory Board are given an introduction to the legal framework surrounding the Supervisory Board and can also meet with members of the Managing Board and line managers to discuss fundamental and current issues in order to gain an overview of the topics that are relevant to the company. New Supervisory Board members also receive comprehensive information about the corporate governance of the company as well as insider law processes and obligations.

In addition, the Managing Board reports on corporate governance at Heidelberg Materials also for the Supervisory Board in the **Corporate Governance statement chapter**.

With the statements listed above, the Supervisory Board has reaffirmed its commitment to effective corporate governance in the Group.

Auditing and approval of annual financial statements, consolidated financial statements, and non-financial statement

Before the contract for the auditing of the annual financial statements of the company and the consolidated financial statements of the Group was awarded, the points of focus for the audit and the content of the audit were discussed in detail with the auditor, PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt am Main. The Audit Committee discussed the costs of the audit and with the auditor the assessment of audit risk, the audit strategy, audit planning, and the audit results with the auditor. The Chairman of the Audit Committee and the auditor regularly exchanged information on the progress of the audit, after which the Chairman reported to the committee.

In January 2023, the Managing Board informed the Supervisory Board about the preliminary, unaudited key figures for the 2022 financial year and provided a status report on the financial statements work. The annual financial statements of HeidelbergCement AG, the consolidated financial statements as at 31 December 2022, and the combined management report for the company and the Group, as prepared by the Managing Board, were examined by the auditor. In addition, the auditor performed a limited assurance engagement on the non-financial statement (sections 289b and 315b of the HGB) contained in the combined management report on behalf of the Supervisory Board. The financial statements together with the reading copies of the auditors' reports were sent in advance to the members of the Supervisory Board. At first, the Audit Committee dealt intensively with the financial statements documents (including the non-financial statement) in the presence of the auditor. The auditor reported on the main results of its audit. In addition, the Audit Committee had the auditor report on the effectiveness of the internal control and early risk identification system in relation to accounting, whereby the auditor stated that he had not found any significant weaknesses in this regard. Against this background and after its own consideration, the Audit Committee determined that the internal control system, the internal audit system, and the risk management system, including the early risk identification system, meet the requirements to be placed on them. The Supervisory Board shares the opinion of the Audit Committee on the effectiveness of these systems. Then, the Supervisory Board discussed the financial statement documents (including the non-financial statement) in detail, once again in the presence of the auditor. Respective discussions in the Audit Committee and Supervisory Board also took place without the participation of the Managing Board. The Supervisory Board approved the audit results. It examined the annual financial statements and consolidated financial statements, the combined management report (including the non-financial statement), and the Managing Board's proposal for the use of the balance sheet profit. The results of the pre-audit conducted by the Audit Committee and the results of its own audit correspond fully to the results of the auditor. The Supervisory Board raised no objections to the final results of this examination. The auditor issued an unqualified audit opinion on the annual financial statements of HeidelbergCement AG and the consolidated financial statements as at 31 December 2022 as well as the combined management report of HeidelbergCement AG and the Group.

The Supervisory Board approved the Managing Board's proposal for the use of the balance sheet profit, including the payout of a dividend of €2.60 per share (previous year: €2.40).

Personnel matters and a note of thanks

There were no personnel changes on the Managing Board during the reporting year. In January 2023, the Supervisory Board prolonged the appointment of Mr Ernest Jelito as Managing Board member until 31 December 2023 and the appointment of Mr Chris Ward as Managing Board member until 31 August 2028.

As announced before his election to the Supervisory Board, Mr Fritz-Jürgen Heckmann resigned from his position as a member of the Supervisory Board and Chairman of the Supervisory Board and stepped down from the Supervisory Board at the end of the Annual General Meeting on 12 May 2022. The Supervisory Board thanked Mr Heckmann for his extraordinary achievements and valuable contribution to the success of the company during his 17 years as Chairman of the Supervisory Board. In his place, Dr Bernd Scheifele was newly elected to the Supervisory Board as shareholder representative by the Annual General Meeting on 12 May 2022 and, on the same day, elected by the Supervisory Board as its chairman. Pursuant to the Supervisory Board's Rules of Procedure, Dr Scheifele also assumed Mr Heckmann's seats on the Personnel Committee and Audit Committee upon taking office. Furthermore, Mr Tobias Merckle resigned from his position as a member of the Supervisory Board for personal reasons at the end of the 2022 Annual General Meeting and stepped down from the Supervisory Board. In his place, Dr Sopna Sury was elected to the Supervisory Board as shareholder representative by the Annual General Meeting on 12 May 2022. The Supervisory Board also thanked Mr Merckle for his dedicated and expert work on the Supervisory Board and for his valuable contribution to the company's success.

The members of the Sustainability and Innovation Committee, which was newly formed on 12 May 2022, are – as shareholder representatives – Professor Dr Marion Weissenberger-Eibl (Chairwoman), Mr Ludwig Merckle, and Dr Sopna Sury, and – as employee representatives – Dr Ines Ploss, Mr Peter Riedel, and Mr Werner Schraeder.

There were no other changes in the composition of the Supervisory Board.

In conclusion, the Supervisory Board would like to thank all members of the Managing Board and all employees of the Group for their confidence and outstanding cooperation as well as their continued high level of personal commitment and performance on the Group's behalf in the 2022 financial year.

Approval of this report

The Supervisory Board approved this report during its meeting on 22 March 2023 pursuant to section 171(2) of the AktG.

For the Supervisory Board

Bernd Scheifele

Dr Bernd Scheifele

Chairman

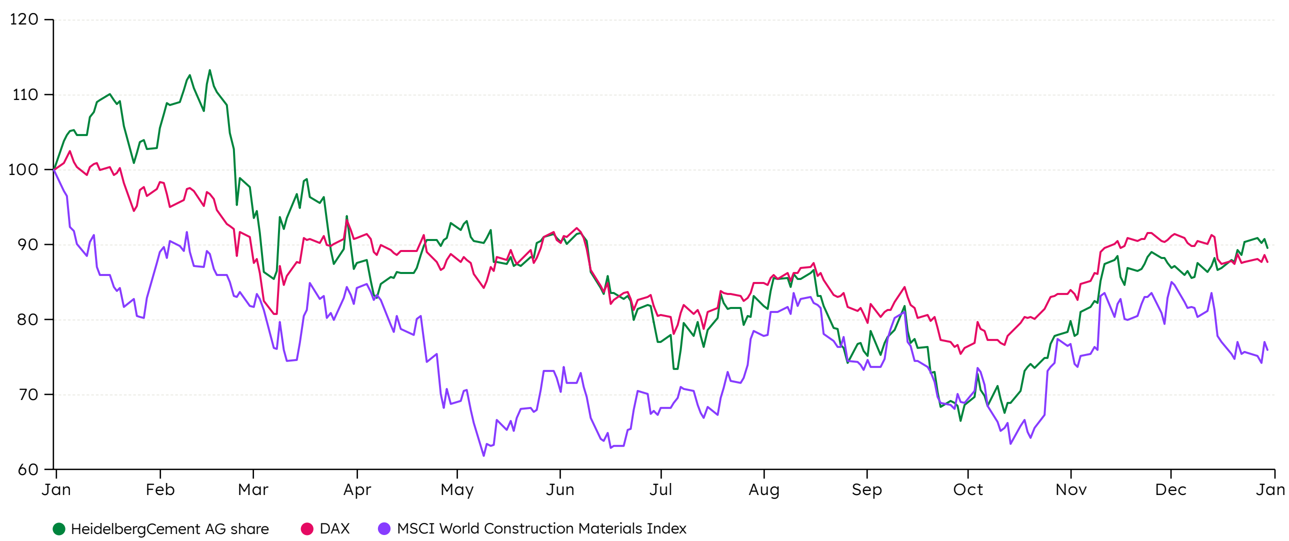
Us in the capital market

Overview

In Germany, the HeidelbergCement AG share is listed for trading on the Prime Standard segment of the Frankfurt Stock Exchange and on the Regulated Market of the Stuttgart, Düsseldorf, and Munich stock exchanges. The HeidelbergCement AG share is listed in the German benchmark index DAX.

Our share ranks among the most important building materials shares in Europe. Besides the DAX, it is also included in other indices, such as the S&P Global 1200 Construction Materials Index and STOXX Europe 600 Construction & Materials Index. Our stock is also listed in the sustainability indices FTSE4Good Europe and DAX 50 ESG.

Development of the HeidelbergCement AG share compared to MSCI World Construction Materials Index and DAX in 2022 Index (Base: 31 December 2021 = 100)



Development of the HeidelbergCement AG share

In the 2022 financial year, the price of the HeidelbergCement AG share recorded a volatile development, influenced by macroeconomic uncertainties and rising energy price inflation due to supply chain bottlenecks as well as the Russia-Ukraine war and the sanctions imposed in response. In contrast, the effects of the coronavirus pandemic became progressively less significant. The price of the HeidelbergCement AG share gradually declined in the first three quarters of the year and reached an annual low of €39.60 on 29 September 2022. In the fourth quarter, our share recovered and closed the year at €53.28. Compared with the end of 2021, the price of the HeidelbergCement AG share fell by 10.5%. During the same period, the DAX recorded a decrease of 12.3% and the MSCI World Construction Materials Index a fall of 24.1%.

At the end of 2022, market capitalisation amounted to €10.3 billion (previous year: 11.8).

Dividend proposal of €2.60 per share

Heidelberg Materials pursues a progressive dividend policy with the aim of increasing the dividend annually. The Managing Board and Supervisory Board will propose to the Annual General Meeting the distribution of a dividend of €2.60 (previous year: €2.40) per share entitled to dividend.

On the basis of the share price at the end of 2022, the dividend yield is 4.9%. Our share is included in the DivDAX share index, which lists the 15 companies with the highest dividend yields in the DAX 40.

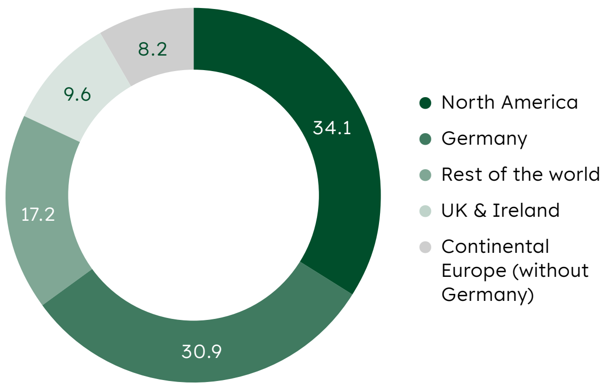
Share buyback programme continued

In July 2021, HeidelbergCement AG launched a share buyback programme for the first time in its history. The programme, with a total volume of up to €1 billion and a term ending on 30 September 2023, underscores the company's intensified focus on shareholder return. The first tranche of the programme, which amounted to €350 million, was completed on 2 December 2021. All 5,324,577 own shares purchased were cancelled with a reduction in the subscribed share capital in January 2022. In the 2022 financial year, we continued the share buyback programme with a second tranche. In the period from 7 March to 13 July 2022, a total of 6,906,281 shares were repurchased for a total amount of €346 million. The shares acquired within the second tranche have since been held as treasury shares.

Shareholder structure

A study conducted at the end of 2022 showed that the proportion of North American and British investors had risen in comparison with the previous year, while the proportion of German and French investors had declined. The investor base has shifted slightly towards value-oriented investors. In December 2022, investors from North America formed the largest investor group at 34.1%, followed by investors from Germany at 30.9%, the United Kingdom and Ireland at 9.6%, and Continental Europe excluding Germany at 8.2%. Investors from other geographical regions and private investors accounted for the remaining 17.2%. The largest shareholder and anchor shareholder is Mr Ludwig Merckle, who holds 27.67% of the issued shares via Spohn Cement Beteiligungen GmbH, a company under his control.

Geographical distribution of shareholders (as of December 2022) in %



Development of the HeidelbergCement AG share (ISIN DE0006047004, WKN 604700)

€	2021	**2022**
Year-end share price	59.52	53.28
Highest share price	80.44	67.44
Lowest share price	57.52	39.60
Equity per share on 31 Dec.	84.43	93.24
Market capitalisation 31 Dec. (€ '000s)	11,809,749	10,287,936
Earnings per share	8.91	8.45
Change compared with previous year		
HeidelbergCement AG share price	-2.8%	-10.5%
MSCI World Construction Materials Index	21.5%	-24.1%
DAX	-15.8%	-12.3%

Dividend key figures

	2018	2019	2020	2021	**2022**
Dividend per share in €	2.10	0.60	2.20	2.40	2.60 [1]
Dividend yield [2] in %	3.0	1.2	2.8	4.6	4.9
Profit for the financial year attributable to HeidelbergCement AG shareholders in €m[3]	1,143.0	1,090.0	1,365.1	1,560.6	1,789.8
Total dividend amount in €m	416.7	119.0	436.5	458.3	484.1
Payout ratio in %	36.5	10.9	32.0	29.4	27.0

1) Proposal to the Annual General Meeting on 11 May 2023
2) Dividend per share/share price on the day of the Annual General Meeting; for the 2022 financial year: dividend per share/share price at the end of the financial year
3) 2020 – 2022 values: adjusted profit for the financial year attributable to HeidelbergCement AG shareholders (see Earnings position section).

Shareholder structure

(Date of the voting rights notification)	31 Dec. 2022
Ludwig Merckle (23 September 2022) via Spohn Cement Beteiligungen GmbH, Schönefeld/Germany	27.67%[1]
Artisan Partners Asset Management Inc., Wilmington, Delaware/USA (4 October 2021)	5.02%
BlackRock, Inc., Wilmington, Delaware/USA (19 August 2019)	4.92%[2]
Black Creek Investment, Toronto/Canada (21 March 2022)	4.01%
The Capital Group Companies, Inc., Los Angeles/ USA (20 April 2021)	3.07%

1) Thereof 25.08% pursuant to section 34 of the German Securities Trading Law (Wertpapierhandelsgesetz, WpHG) (instruments) and 2.59% pursuant to section 38 of the WpHG (instruments)
2) Thereof 4.47% pursuant to section 34 of the WpHG and 0.46% pursuant to section 38 of the WpHG (instruments)

HeidelbergCement AG share capital

	Share capital € '000s	Number of shares
1 January 2022	595,249	198,416,477
31 December 2022	579,276	193,091,900

Credit and sustainability ratings

Details of Heidelberg Materials' credit rating by the rating agencies S&P and Moody's can be found in the **Group financial management section**. ESG factors are becoming increasingly important in investment decisions. A selection of ESG rating agencies and their ratings can be found in the **ESG ratings and indices section**.

Financing framework established for sustainable financing

With its Sustainability-Linked Financing Framework, published in the 2022 financial year, Heidelberg Materials has established a financing framework for the issue of various sustainability-linked financial instruments, such as bonds (including private placements), commercial paper, loans, debt certificates, and other sustainability-linked financing instruments. Further information on sustainable financing can be found in the **Group financial management section**.

Investor relations – open dialogue and transparent communication

In 2022, our investor relations work mainly centred on fostering existing investor relations and attracting new, long-term investors. Another point of focus was on active contact with ESG investors and analysts.

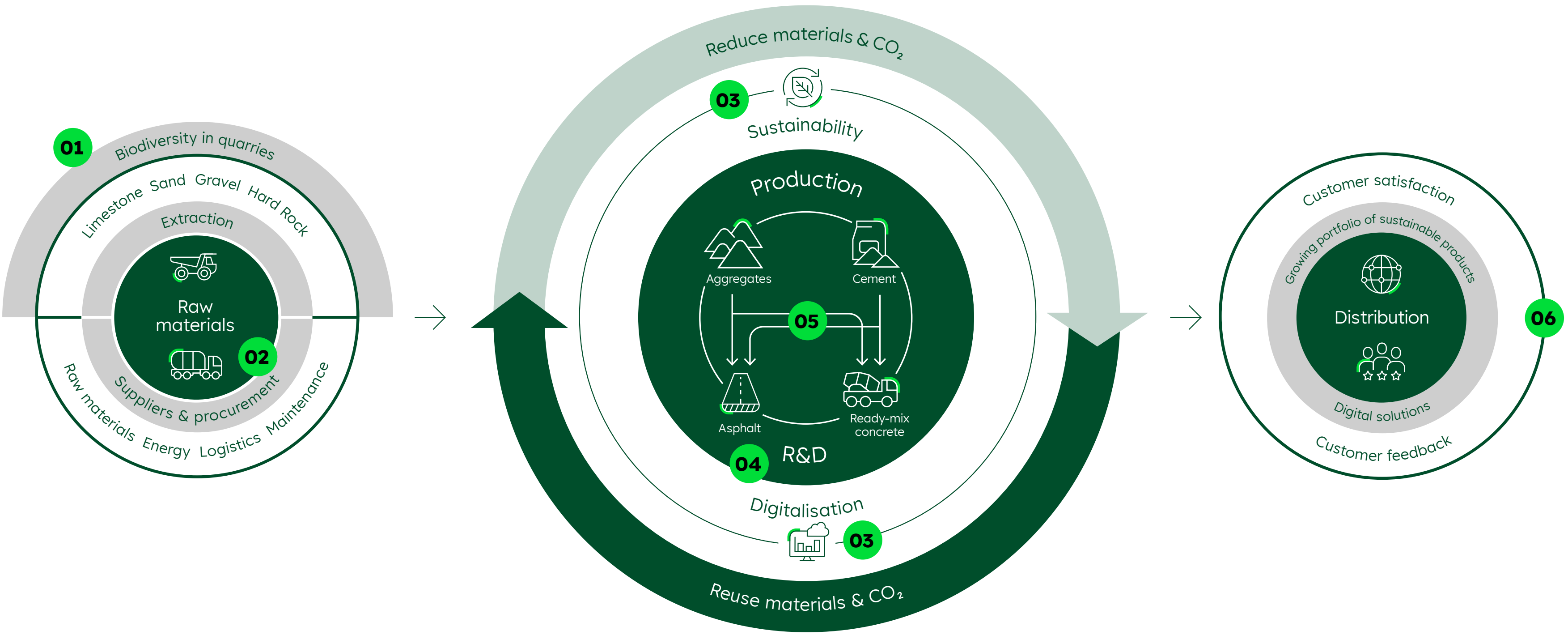
At the Capital Markets Day in May, Heidelberg Materials presented a strategy update with an emphasis on sustainability. It focused on establishing Heidelberg Materials as the world's most sustainable company in the building materials industry and on presenting new, medium-term sustainability and financial targets.

During the reporting year, management and the investor relations team met more than 200 investors physically and virtually at conferences and roadshows, as well as for one-on-one and group discussions. Besides the business figures, the topics of the events and discussions included, in particular, the Group strategy with regard to portfolio management and the transformation topics of sustainability and digitalisation, as well as the company's financial management and capital allocation strategy. Our progress towards climate neutrality and our pioneering role in researching and trialling carbon capture, utilisation, and storage (CCUS) technologies were discussed intensively. Another area of focus was the price development in the energy markets. The investor relations team was in regular contact with all analysts again in 2022. The number of analysts covering Heidelberg Materials remained unchanged at 29 as at the end of the reporting year.

Heidelberg Materials values open dialogue and transparent communication with the capital market and other stakeholders. We take criticism and demands, for instance regarding corporate governance, seriously, analyse and evaluate them, and continuously make improvements. In the future, we will continue the constructive discussions and direct dialogue with capital market participants in order to further strengthen trust in our company and our share.

Sustainability

Value chain



01

The raw materials needed for producing our building materials – limestone for cement production as well as sand, gravel, and hard rock – are generally extracted from our own quarrying sites or obtained by recycling mineral waste products and demolition material. At our quarries and aggregates pits, we are committed to environmentally friendly mining methods as well as subsequent restoration and recultivation of quarrying sites.

02

We attach great importance to responsible procurement and sustainable behaviour on the part of our suppliers. We aim to build a transparent, sustainable, and future-oriented supply chain in close cooperation with our qualified suppliers. Our expenditure mainly relates to the categories of raw materials, energy, logistics, and maintenance.

03

Our range of sustainable products and applications is growing steadily thanks to the integration of sustainability in our value chain. In addition, we are building a modern digital infrastructure across all our business lines and locations, developing digital products, and providing customer solutions that help us achieve success in our core business.

04

Innovative products and technologies, as well as improvements to our processes, help us minimise energy consumption and CO_2 emissions. We are working to reduce the use of materials and increase the proportion of recycled material in our products.

05

Our business is based on the production of cement and aggregates, the two essential raw materials for manufacturing concrete. They are processed into ready-mixed concrete, asphalt, and various other materials. We focus on expanding our sustainable product portfolio, supported by R&D with innovative solutions.

06

Our close proximity to the market enables us to provide our customers with extensive advice and develop our products in close consultation with them. However, our work does not end with the product; we also provide customers with expert advice on product usage.

Sustainability strategy

The ongoing global trend towards urbanisation and the intensive construction activity in the housing and infrastructure sectors require sustainable solutions to achieve the decarbonisation of the building materials sector. We are delivering these solutions and, through our products, we are playing a leading role in paving the way to net zero.

At Heidelberg Materials' almost 3,000 locations, sustainability is an integral part of our day-to-day business. We aim to spearhead the decarbonisation of our sector and promote the circular economy in our value chain. Closing the loop in the material cycle of sand, aggregates, and hardened cement paste is of crucial importance to us and constitutes a major lever for reducing carbon emissions. To increase resource efficiency and protect natural raw materials, we are also scaling up our recycling activities, especially with regard to demolition concrete.

The Sustainability Commitments 2030 serve as guiding principles for the Heidelberg Materials sustainability strategy. They cover topics under four headings: Net Zero, Circular & Resilient, Safe & Inclusive, and Nature Positive.

Sustainability Office

At Group level, the topic of sustainability has been organisationally combined under the umbrella of the Sustainability Office and the leadership of member of the Managing Board and Chief Sustainability Officer Dr Nicola Kimm since 2021. This structure, designed for cooperation and interdisciplinarity, is intended to ensure that sustainability criteria are incorporated into every decision taken at Heidelberg Materials.

The departments of the Sustainability Office support the future-oriented sustainability activities at Group level in a number of ways. In addition to designing the sustainability strategy, including the associated targets, this includes in particular research and development of innovative materials and technologies. The Sustainability Office is also responsible for drawing up potential business models and establishing a strong, cross-industry partnership network.

"We drive the transition to sustainable construction. Modern society needs resilient, smart and liveable buildings and infrastructure."

**Dr Nicola Kimm,
Chief Sustainability Officer and
member of the Managing Board**

Environmental Social Governance
The Group ESG department drives our key sustainability topics to ensure that they are anchored in our strategy, business processes, and decisions.

Research & Development
Teams from the Global Research & Development department play a leading role in developing innovative new materials and technologies, and in optimising conventional products and processes.

Technologies & Partnerships
Together with leading partners, the Technology & Partnerships department scouts carbon capture, utilisation, and storage (CCUS) technologies and co-develops pioneering projects.

Innovation Hub
The purpose of the Innovation Hub is to devise business models around sustainable construction solutions together with internal and external partners.

Materiality analysis

We regularly use a materiality analysis to examine how relevant individual sustainability topics are for different stakeholder groups and for the company itself. The analysis thus helps us identify and evaluate issues and developments that are important for our business success or could prove to be important in future.

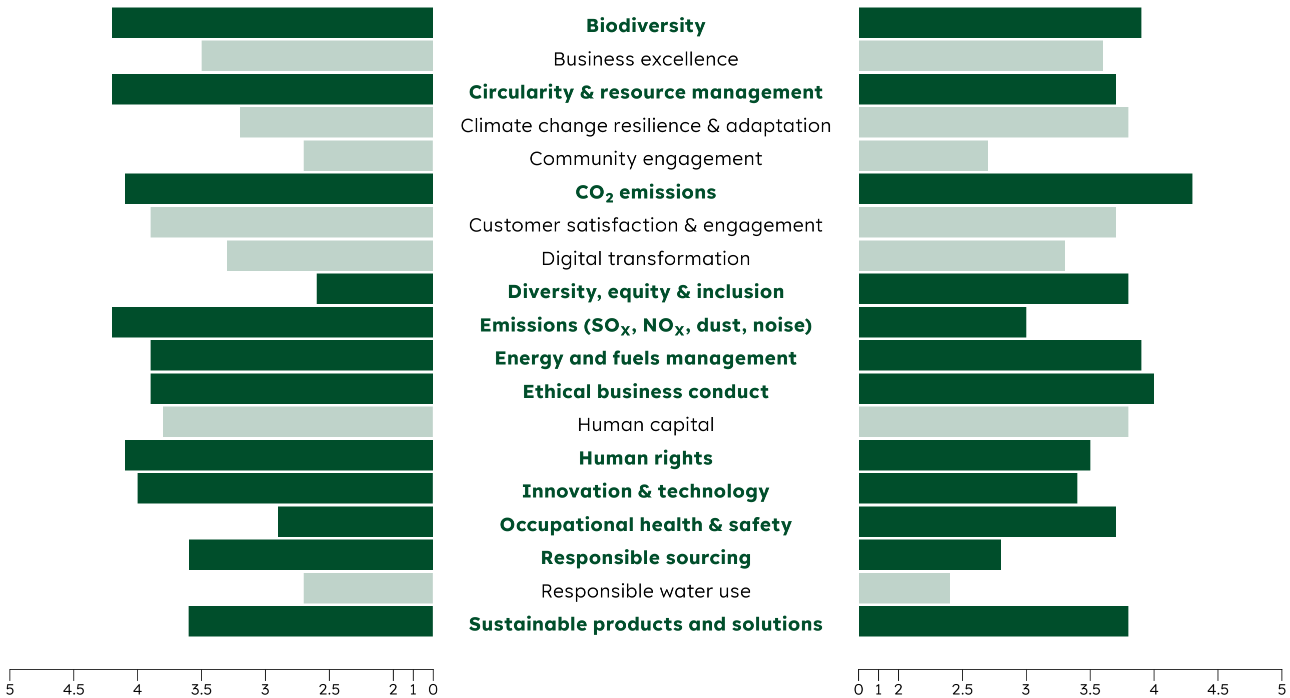
In 2022, we conducted an online survey and several workshops to ask around 200 people – including shareholders, employees, investors, customers, suppliers, our management, and representatives of associations – about their views on the most important sustainability topics for Heidelberg Materials.

The analysis is based on the principle of double materiality, which incorporates both the impact of sustainability topics on business relevance and the impact of entrepreneurial activity on society and the environment. On the basis of the materiality analysis, we have identified the key action areas for Heidelberg Materials in the area of sustainability. The most highly rated topics were then validated by the Managing Board in terms of their strategic relevance. Special attention was also paid to topics which are less firmly established. The twelve topics resulting from these evaluation steps are highlighted in the graph.

Presentation on materiality

Impact on the environment and society
Does the business activity of Heidelberg Materials have an impact on this topic? Especially in the context of social and environmental action areas?

Business relevance
Does this topic affect the business activity of Heidelberg Materials from a financial point of view?



Note: The questions were answered on a scale from 0 (no impact) to 5 (very strong impact). The topics are listed in alphabetical order.

Stakeholder engagement

In view of the strong local focus of our business operations, we can only be successful in the long term if we maintain good cooperative relationships with the various stakeholders in society. We are committed to a dialogue based on trust with all such relevant groups – at a local, national, and international level. The resulting exchange of ideas and opinions helps us identify critical issues at an early stage and gain greater acceptance for our activities. Each country organisation is responsible for establishing and maintaining its own relationships with national and local stakeholders. The stakeholder dialogue at international level is managed by the Group departments for communication and sustainability.

Stakeholder management guidelines:
Corporate citizenship

Relations with local stakeholders

Most of our plants and quarries are situated near cities and communities. It is therefore a matter of course for us to maintain regular contact with the respective community, government agencies, and local organisations, and to inform them about our activities and planned projects at the location. Plant or site management teams are generally responsible for such stakeholder relationships. Along with personal discussions, we use a variety of other means of communication to keep local stakeholder groups informed and enter into dialogue with them – ranging from traditional newsletters and guidelines to social media and a variety of public participation concepts.

We aim to reconcile the interests of the company with those of the local communities. The concerns of our local stakeholders vary from location to location. In general, they range from simple visit enquiries and appeals for us to support projects and sports, cultural and educational institutions, all the way through to information requests. Stakeholders also raise reservations regarding imminent modernisation and expansion measures. In the course of our business activities, there may also be occasional controversies in the vicinity of our locations relating to such topics as emissions, (increased) truck traffic, or noise. We respond promptly to complaints and provide transparent information wherever possible and practical in order to address uncertainties and misgivings. We also involve local stakeholders at an early stage when planning investment projects, such as by setting up contact offices and holding information and discussion events.
Social responsibility

Stakeholder dialogue at a national and international level

Heidelberg Materials, along with its various companies, is a member of or participant in a large number of associations and initiatives that represent their members' interests vis-à-vis governments, businesses, and the public. This engagement also promotes an exchange with other companies and organisations regarding current issues. An important case in point is the question of how the industrial transformation towards climate neutrality can be successfully implemented and accelerated in combination with ambitious environmental protection measures.

In addition, the focus is on various challenges specific to individual countries or sectors, or relating to industrial policy, particularly with regard to the secure supply of raw materials, carbon pricing, biodiversity, energy, occupational health and safety, as well as social and labour issues. Through our memberships in various national associations, we are also represented in the respective European umbrella organisations. Furthermore, as a company headquartered in Germany, we are actively involved at national level in various cross-sectoral climate protection initiatives.

Selected memberships and initiatives:
Associations, initiatives, and networks

Direct exchange with political decision makers

In order to further strengthen our dialogue with policymakers, we supplement Heidelberg Materials' indirect representation via associations with company representative offices in Berlin, Brussels, and Washington. Our aim is to facilitate a direct exchange between political decision makers and contact partners within the company. At numerous events, presentations, and panel discussions in 2022, we were also able to demonstrate in person how Heidelberg Materials, as one of the world's leading building materials companies, can help to solve social problems. The main focus was the need to create a coherent and supportive framework for the industry's decarbonisation: for us, this includes not only ambitious carbon pricing, but also the expansion of renewable energies and alternative fuels, a reliable framework and clear guidelines for CCUS, and the development of a carbon infrastructure as well as solutions in support of a closed circular economy. Other important areas were the need to create "green" lead markets and new standards for low-emission products.

In addition, we further expanded our structures and policies to ensure that our positions remain consistent with those of the industry associations in which we are involved. In particular, we want to guarantee that the positions and actions of industry associations are in line with international and European climate protection agreements and the targets set out in our Sustainability Commitments 2030. We have therefore again published a **Climate Advocacy and Association Review** for 2022.

Our lobbying activities represent the positions that Heidelberg Materials takes in public.

Dialogue with non-governmental organisations

As a matter of principle, we respond in a transparent manner to all requests from non-governmental organisations and interest groups. We also take critical questions as opportunities to inform people about our sustainability activities and enter into dialogue. The society-wide debate on climate change remained heated in 2022. This discussion is something we generally welcome, because, as an energy-intensive company in the building materials industry, we have a particularly great responsibility towards climate and environmental protection.

Also in the past year, the central concerns discussed were our targets, measures, and strategies with regard to climate protection along with other environmental issues, as well as the occupational safety of our employees and contractual partners, aspects of corporate governance, and respect for human rights.

Overview of stakeholders

Employees

Relevant topics
Corporate culture and purpose, occupational health and safety, business performance, Group's future viability

Dialogue formats
Virtual and on-site meetings, works meetings, intranet, in-house magazines, video messages, dialogue formats

Local communities

Relevant topics
Requests for visits, sponsorship, and information, complaints, for example about noise and dust pollution, discussion of the planning of investment projects

Dialogue formats
Personal discussions, traditional newsletters and guidelines, digital offerings/social media, site visits and open days, public participation concepts (setting up contact offices and holding information and discussion events)

Customers

Relevant topics
Information on products, solutions, and certifications, innovative and sustainable products, product quality, handling of customer data

Dialogue formats
Customer events, "Sustainability Academies," personal contact partners, participation in trade fairs and events, digital applications

Suppliers

Relevant topics
Compliance, human rights, sustainability in the supply chain, business performance

Dialogue formats
Supplier discussions and surveys, supplier days, safety training

Politics and public service

Relevant topics
Heidelberg Materials' contribution to the decarbonisation of the sector, expansion of renewable energies and infrastructure, CCUS, circular economy, sustainable financing, permits and requirements

Dialogue formats
Personal discussions, public events and panels, association and organisation dialogue formats

Non-governmental organisations

Relevant topics
Human rights, climate protection and other environmental issues, occupational safety, corporate governance

Dialogue formats
Participation on panels and in discussion events, response to enquiries, partnerships

Investors and analysts

Relevant topics
Business performance, sustainability, corporate governance

Dialogue formats
Annual General Meeting, Capital Markets Day, quarterly conference calls, investor conferences, roadshows

Universities and research institutions

Relevant topics
Research cooperation, scientific exchange

Dialogue formats
Research projects, participation in professional events, publications, internships, student trainee positions, Quarry Life Award

Compliance

Compliance is a vital element of our corporate values. The public image of Heidelberg Materials is shaped by the conduct of each and every employee. We respect the cultures and laws of the countries in which we operate as well as the local people and institutions. With our **Code of Business Conduct**, we have introduced a Group-wide set of rules to which all of us are committed.

Compliant behaviour is at the heart of our business activities

We can only achieve success by working as a team – and compliance is no exception. In turn, this means that compliance work itself must be clearly defined by rules and widely communicated. This is the role of our compliance management system. In addition to overseeing the system, the Managing Board takes the lead when it comes to reminding the workforce of their compliance obligations.

Compliant behaviour is also integral to our business model. Our production and extraction sites are generally designed for a service life of several decades. To maintain operating permits at our locations over these long periods and to renew our mining concessions at the required intervals, we need the constant support of the public and must prove our integrity time and time again.

Our compliance management system

Our compliance management system consists of seven elements, which are also laid down in the auditing standard 980 issued by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer in Deutschland e.V., IDW).

- Our **compliance culture** is documented in our Code of Business Conduct.
- Our Code of Business Conduct and other compliance guidelines also define clear **compliance targets**.
- We generally carry out **compliance risk assessments** to help guide our compliance work, but also to specifically address the topics of anti-corruption and human rights.
- Our **compliance programme** includes, in particular, guidelines, a whistle-blower system and case management, sanctions screening, and reviews of business partners.
- The **compliance organisation** clearly defines responsibilities and ensures complete coverage of all compliance topics.
- **Compliance communications** include web-based and face-to-face training, videos, posters, online information, compliance letters, and other media use.
- Regular **compliance checks** are primarily carried out by Group Internal Audit.

We regularly make our employees aware of compliance matters. The topic is firmly integrated into all work processes through training opportunities and practical application on a daily basis. If there is no specific guideline on how to act in a particular situation, the compliance team can be consulted to give recommendations in line with our ethical standards and our Code of Business Conduct. We carry out our responsibilities towards customers, suppliers, official bodies, and business partners with honesty, integrity, and professionalism.

We believe that adhering to the principles of our Code of Business Conduct ensures the business success of Heidelberg Materials, creates a working environment built on trust, and leads to higher levels of satisfaction among all of our company's stakeholders.
Non-financial statement

Sustainable financing and taxes

Heidelberg Materials is represented in more than 50 countries worldwide. We create jobs at our locations – both directly at our production sites and indirectly in upstream and downstream business sectors. We promote economic development with our wages, investment, procurement, and taxes, particularly in economically weak regions, and assume our social responsibility. Since 2022, our financial instruments have also been linked to sustainability aspects.

Financing

We use our Sustainability-linked Financing Framework as the basis for aligning the financing strategy with Heidelberg Materials' sustainability targets. We want to increase the share of sustainable financial instruments to over 70% by 2025. We are currently at 44%.

Our Sustainability-linked Financing Framework is based on, among other things, UN Sustainable Development Goals (SDGs) No. 9 "Industry, Innovation, and Infrastructure" and No. 13 "Climate Action."

The Sustainability-linked Financing Framework has been established as a platform for the issue of various sustainability-linked financial instruments, such as bonds (including private placements), commercial papers, loans, debt certificates, and other sustainability-linked financial instruments, in various formats and currencies. Heidelberg Materials is a pioneer in the field of commercial paper (CP, short-term bearer bonds of a money market character) with a sustainable performance target. The CP programme is also linked to the reduction of specific CO_2 emissions per tonne of cementitious material in accordance with the 2026 target set out in the Sustainability-linked Financing Framework. If we are unable to reduce CO_2 emissions within the defined period and at the specified level, an additional annual interest payment must be donated to the non-profit organisation BirdLife Europe to promote biodiversity.

Bonds and rating
Sustainable financing
Group financial management

Tax strategy

We are aware that tax revenues are an important cornerstone for financing government investments and expenditures. To secure our licence to operate, it is essential that we comply with tax laws and regulations and pay taxes in the countries where we are active and generate profits. Our tax strategy forms the basis for the implementation of our sustainable business activities. It is closely linked to our Group strategy and sustainability targets and applies to all subsidiaries worldwide. It is reflected in our Tax Policy and Tax Principles, which set out the values and standards that guide our actions with respect to taxation.

Our internal control processes and guidelines are designed to avoid any violations of laws, thereby protecting our employees and averting any reputational damage. The positions we take are based on an appropriate interpretation of tax laws and regulations, any relevant judgments and opinions. Our tax matters are handled by internal tax specialists or external tax consultants. Our tax processes and controls are subject to regular audits by internal and external specialists. Any significant findings and risks are reported to the Chief Financial Officer and the Audit Committee of the Supervisory Board.

We communicate openly and transparently with tax authorities and aim to inform them promptly about important transactions and any tax issues. We organise our business transactions on the basis of sound economic and legal facts, and do not use any aggressive or artificial tax arrangements. According to the list of shareholdings, Heidelberg Materials has subsidiaries in countries that are considered tax havens; these companies are known to the tax authorities and are not used for tax avoidance purposes.

Heidelberg Materials Tax Principles & Values

ESG ratings and indices

ESG factors are becoming increasingly important in investment decisions, and the market for sustainable investments is growing steadily. The interest of our shareholders, financial analysts, and ESG rating agencies reflects this.

In 2022, we developed an ESG rating strategy that describes our future direction and successful positioning in the ESG ratings market. We provide data to rating agencies such as CDP, ISS ESG, MSCI, S&P, and Sustainalytics, and regularly analyse and evaluate the relevance and importance of different ratings. They are a valuable tool for identifying best practices and optimisation potential. In particular, the performance of Heidelberg Materials in the categories of environmental management systems, stakeholder dialogue, and business ethics was assessed positively in several ratings.

CDP
In the CDP sustainability rating, Heidelberg Materials received a classification of B for “Climate Change” and A- for “Water” in 2022. www.cdp.net

DAX 50 ESG
In March 2020, our share was added to the newly launched index DAX 50 ESG.

FTSE4Good
We are a member of the FTSE4Good index family. www.ftserussell.com

ISS ESG
In the ISS ESG Corporate Rating, Heidelberg Materials has a score of C+ and is thus authorised to use the ISS ESG Prime Label. www.issgovernance.com

Moody’s ESG Solutions
In the rating by Vigeo Eiris, Moody’s ESG rating unit, Heidelberg Materials received an overall score of 63 in October 2021, placing it among the three best-rated out of 25 companies in the building materials sector. esg.moodys.io

MSCI ESG
In 2022, Heidelberg Materials was again graded AA in the MSCI ESG Ratings. www.msci.com

S&P Global
Heidelberg Materials regularly takes part in the S&P Corporate Sustainability Assessment, achieving a score of 78 in 2022, five points more than in the previous year. www.spglobal.com

Sustainalytics
In Sustainalytics’ ESG Risk Rating, Heidelberg Materials achieved a 27.7 score in November 2022, placing it in the medium risk category. www.sustainalytics.com

Sustainable Development Goals

As a leading producer of building materials, we are aware of our responsibility for the sustainable use of natural resources, for efficient and environmentally friendly processes, and for promoting innovation to optimise our products. Through our Sustainability Commitments 2030, we are supporting the UN Sustainable Development Goals. In doing so, we aim to help address social, economic, and environmental challenges at a global level. Our efforts are concentrated on those issues to which we can make a significant contribution as a company. With our business model in mind, we focus particularly on SDGs 5, 8, 9, 12, 13, and 15.

Achieve gender equality and empower all women and girls

5 GENDER EQUALITY

Link to our strategy The construction sector traditionally has a high proportion of men in the workforce. As an international company, Heidelberg Materials respects country-specific and cultural differences and recognises the value of a diverse, inclusive society.

What we do Alongside our target of increasing the proportion of women in leadership positions to 25% by 2030, we have launched a comprehensive programme of measures. This includes awareness-raising efforts for an inclusive working environment as well as measures to ensure equal opportunities and combat discrimination. We support the career development of our female future executives – for example, via mentoring, participation in programmes for the advancement of future executives, or targeted action plans such as a pilot programme for training women as truck drivers.

Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all

8 DECENT WORK AND ECONOMIC GROWTH

Link to our strategy With approximately 51,000 employees in more than 50 countries, Heidelberg Materials generates a revenue of €21.1 billion. Our products are usually produced and sold in close proximity to the sales markets. In view of the strong local focus of our business operations, we attribute great importance to our cooperative relationships with the various stakeholders.

Occupational health and safety plays a special role for Heidelberg Materials as a manufacturing company. This applies in particular to our plants, facilities, and construction sites, as well as in connection with logistics and transport.

What we do We also create local jobs in rural areas, support the growth of the economy, and make a contribution in the communities to which our locations belong. We are committed to a dialogue based on trust with all such relevant groups. We also involve local stakeholders at an early stage when planning investment projects.

We adhere to technical standards at our locations and have strict rules for environmentally sustainable production processes. Heidelberg Materials strives to ensure compliance with sustainability standards in the supply chain. Group-wide purchasing guidelines therefore provide clear instructions regarding our supplier relations and purchasing activities. We review and promote sustainability in the supply chain via an ESG rating of our critical suppliers.

In the area of occupational health and safety, our primary target is to prevent fatalities and accidents resulting in personal injury. We aim to at least halve the lost-time injury frequency rate (LTIFR) by 2030.

Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Link to our strategy Research is fundamental in helping us reduce process- and energy-related CO_2 emissions in the manufacture of our products. In our R&D activities, we strive to optimise existing processes and develop innovative processes and products.

What we do Research and innovation are essential for achieving the sustainability targets, enabling us to optimise processes, develop new products, and safeguard their quality for standardised use. Innovative products, improved processes, and new cement and concrete formulations help minimise energy consumption and CO_2 emissions and therefore reduce our impact on the environment.

Ensure sustainable consumption and production patterns

Link to our strategy As a manufacturer of building materials and aggregates, Heidelberg Materials is dependent on natural resources obtained from sand and aggregates pits as well as quarries. As concrete is fully recyclable, there is great potential for achieving a circular flow of materials.

What we do Our circularity strategy aims to reduce the use of primary raw materials, recycle and reuse materials, and extend the life of the structures for which our products are used. Targets to promote circular products, increased use of alternative fuels, and the expansion of recycling activities help us to achieve this SDG.

Among other things, we are working to reduce our carbon footprint by closing the carbon loop, develop cements with a reduced clinker content, and devise innovative recycling technologies that allow waste concrete to be fully reused in fresh concrete. Our attention is focused on the life cycle of concrete – including how demolition concrete is processed and returned to the construction cycle.

Take urgent action to combat climate change and its impacts

Link to our strategy The production of cement is particularly CO_2-intensive. Accordingly, our industry is one of the major emitters of CO_2. Around two-thirds of the carbon emissions generated by the cement industry in the production of cement clinker are process-related, while one third can be attributed to energy requirements.

What we do Reducing our own CO_2 emissions is our biggest lever in the fight against climate change. We have set a target of reducing our CO_2 emissions to 400 kg per tonne of cementitious material by 2030 and achieve net zero[1] by 2050 at the latest.

We are investing substantially in researching and developing innovative low-carbon production technologies and products, and advancing a portfolio of sustainable products in every Group country.

In addition, concrete is becoming increasingly important as a building material in the context of preventing climate change-related damage. Thanks to its strength and durability, it is ideally suited for the construction of infrastructure that is resistant to extreme weather events.

Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Link to our strategy The extraction of raw materials such as limestone, sand, and gravel has an impact on nature and ecosystems. However, quarries and aggregates pits in intensively cultivated landscapes worldwide can also contribute to the conservation of habitats and biodiversity and are refuges for rare animal and plant species.

What we do We want to reduce, neutralise, or even overcompensate for the impacts of our activities. We work to conserve habitats and species throughout the life cycle of our quarries.

Even during the extraction phase at an operational site, we can create favourable conditions for threatened species that are associated with early stages of ecological succession. Through the reclamation process, we are also able to create new habitats, such as wetlands and species-rich grasslands, and integrate biodiversity features into any intended subsequent use.

Our target of being “nature positive” is linked to a comprehensive programme of measures to protect ecosystems. Biodiversity management plans are an integral part of our work.

1) According to SBTi definition.

Our Sustainability Commitments 2030

Building a more sustainable future

The world needs smart, sustainable, and resilient infrastructure, buildings, and public spaces. Challenges like climate change and resource limitations mean that the production and use of heavy building materials must evolve. At Heidelberg Materials, we are transforming our business to address these challenges, and are placing sustainability at the core of what we do.

Our Sustainability Commitments 2030

The United Nations Sustainable Development Goals (SDGs) shape our strategy and sustainability commitments. Our Sustainability Commitments 2030 support our vision to build a more sustainable future that is net zero, safe and inclusive, nature positive, and circular and resilient.

Building a Net Zero Future

We drive the decarbonisation of our sector and provide low-carbon products.

CO_2 & Energy	Reduce our Scope 1 CO_2 emissions to 400 kg per tonne of cementitious material Reduce our total CO_2 footprint according to the SBTi 1.5°C pathway[1)] Capture 10 million tonnes of CO_2 cumulatively through our CCUS projects	13 Climate Action
Additional Emissions	Reduce sulphur and nitrogen oxide emissions (SO_x and NO_x) by 40% compared with 2008	13 Climate Action
Sustainable Revenue	Achieve 50% of our revenue from sustainable products that are either low-carbon or circular	9 Industry, Innovation and Infrastructure

1) **SBTi business ambition for 1.5°C**; CO_2 reduction compared to base year 2020:
Scope 1: –24% per tonne of cementitious material
Scope 2: –65% per tonne of cementitious material
Scope 3: –25% in absolute emissions from purchased cement and clinker

Building a Safe & Inclusive Future

We place the health and wellbeing of employees, communities, and suppliers at the core of our business operations.

Diversity, Equity & Inclusion	Ensure that 25% of leadership positions are filled by women	5 Gender Equality
Occupational Health & Safety	Achieve zero fatalities and reduce lost time injury frequency rate (LTIFR) by 50% compared with 2020	8 Decent Work and Economic Growth
Community Engagement	100% of our sites have community engagement plans All employees are offered one day per year of paid leave for voluntary community work	8 Decent Work and Economic Growth
Sustainable Suppliers	80% of critical supplier spend confirmed with a green ESG rating	8 Decent Work and Economic Growth

Building a Circular & Resilient Future

We drive circularity to reduce and reuse materials and natural resources.

Circularity	Offer circular alternatives for 50% of our concrete products – aiming for full coverage	12 Responsible Consumption and Production
Sustainable Revenue	Achieve 50% of our revenue from sustainable products that are either low-carbon or circular	9 Industry, Innovation and Infrastructure

Building a Nature Positive Future

We contribute to a nature positive world through our industry-leading biodiversity programme and sustainable water management.

Biodiversity	100% of active quarries contribute to the global goal of nature positive, with 15% space for nature	15 Life on Land
Water	100% of sites in water-risk areas implement water management plans and water recycling systems	12 Responsible Consumption and Production

Net Zero

Building a net zero future

Reducing our CO_2 emissions

1990 → 2021 → 2022 → 2030

1990	2021	2022	2030
750 KG CO_2/T CEM	565 KG CO_2/T CEM	551 KG CO_2/T CEM	400 KG CO_2/T CEM

−2.4% 2021–2022

−47% 1990–2030

Alternative fuel mix

28.7%

Alternative fuel rate

Successfully increased from 3% since 1990, target: 45%.

Our commitment

Our Sustainability Commitments 2030

10 MIO T CO_2 EMISSIONS

captured by 2030 through our already launched **CCUS** projects.

1.5°C

We are **reducing** our total **CO_2 footprint** according to the SBTi 1.5°C pathway.

50% **Group revenue**

We achieve 50% of our revenue from **sustainable products** that are either low-carbon or circular.

−40% **compared with 2008**

Reduction of sulphur and nitrogen oxide **emissions** (SO_x and NO_x) by 2030.

Climate strategy and CO_2 reduction

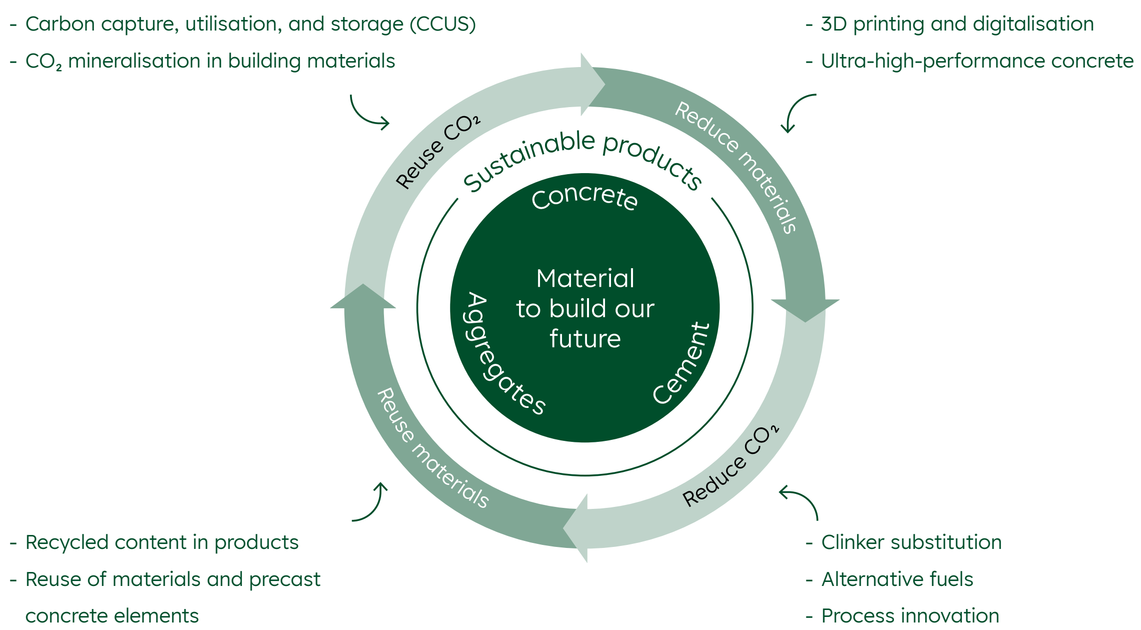
Concrete is essential for the infrastructure of the future. It is durable, fully recyclable, and produced locally. Given its resistance to extreme weather events such as droughts and severe storms, it plays an important role in mitigating climate change. Since concrete is also inexpensive to manufacture, it can provide even emerging countries with a solid infrastructure at a reasonable cost.

However, the production of cement, the "binder" in concrete, is CO_2-intensive. Therefore, the building materials industry is one of the biggest producers of carbon dioxide emissions. At the same time, this means we have an opportunity to make a significant contribution to climate neutrality – and we are fully committed to this challenge at Heidelberg Materials.

As a technology leader, we are playing a pioneering role in the decarbonisation of our industry. We accept our share of the global responsibility to limit the rise in worldwide temperature to 1.5°C. We will reduce our CO_2 emissions to net zero[1] by 2050 at the latest.

1) According to SBTi definition.

Reduce and reuse: closing the carbon and material loops



Our path to net zero

Our ambitious climate protection targets have a special strategic role to play. By 2030, we aim to reduce specific net CO_2 emissions to 400 kg per tonne of cementitious material. This corresponds to a reduction of almost half compared with 1990. We will achieve this, among others, by **optimising the product mix** and making **process improvements**, such as maximising the use of alternative fuels, switching to electricity from renewable energy sources, and investing in plant efficiency.

In addition, we are making use of innovative **carbon capture, utilisation, and storage (CCUS)** technologies: CCUS is a key component of our climate strategy. Our facility in Brevik, Norway, is scheduled to go into operation as early as 2024. By 2030 we will have implemented further projects at Edmonton in Canada, Padeswood in the United Kingdom, and Slite in Sweden, among other locations. With Heidelberg Materials' already launched CCUS projects alone, we aim to cut our carbon emissions by 10 million tonnes cumulatively by 2030.

Through our **investments towards a circular economy**, which we are already implementing today, we will also make a decisive contribution to the long-term reduction of CO_2 emissions. Among other things, we are working intensively on innovative processes for the specific processing of concrete parts, their recarbonisation, and reuse in concrete as a building material.
Non-financial statement

In line with SBTi 1.5°C pathway

In February 2023, the Science Based Targets initiative (SBTi) validated Heidelberg Materials' 2030 CO_2 reduction targets according to its new 1.5°C framework. The commitments towards the SBTi[1] are consistent with Heidelberg Materials' own previously communicated target to reduce specific net CO_2 emissions to 400 kg per tonne of cementitious material by 2030.

The SBTi reviews and validates companies' emission reduction targets based on scientific climate findings. Its 1.5°C framework for the cement industry is the first guidance for setting science-based targets in line with the Paris Agreement's goal of limiting global temperature rise to 1.5°C above pre-industrial levels.

Globally anchored climate protection targets

Our reduction strategy is based on solid measures at plant and product levels, the implementation of which is well underway. For all measures, we have defined concrete targets for all locations worldwide. Since the 2021 financial year, the reduction in CO_2 emissions has been anchored in the remuneration of the Managing Board and every bonus-eligible employee worldwide. This underlines the strategic relevance of our climate protection targets.

In addition to our own production operations, we consider the supply chain when it comes to reducing our CO_2 emissions. By joining the **First Movers Coalition**, we are also recognising our responsibility as a purchaser of green products and services.

1) CO_2 reduction compared to base year 2020:
Scope 1: −24% per tonne of cementitious material
Scope 2: −65% per tonne of cementitious material
Scope 3: −25% in absolute emissions from purchased cement and clinker

Circular City

Europe's first municipal urban mining project

Together with the city of Heidelberg, another pioneer in the field of climate protection, Heidelberg Materials wants to demonstrate the enormous potential of concrete recycling for the urban planning of the future in the Circular City project. Instead of demolished concrete being disposed of at landfill sites or utilised in roadbeds, it would be crushed using novel processes, sorted into its components, and returned to the construction cycle.

With the project, also in which consultants Drees & Sommer SE and the materials platform Madaster are involved alongside Heidelberg Materials, Heidelberg is the first city in Europe to apply the principle of urban mining, with construction and demolition waste to be reused in new construction projects in support of the circular economy. The aim is to conduct a complete economic and environmental analysis of the city's building stock, which will be compiled in a digital material register. This information will enable the city to, for example, plan landfill sites and treatment areas accordingly and foster local value creation through regional supply chains and new business models.

Our CCUS project portfolio

CC
As part of our **carbon capture** projects, we are testing the capture of high-purity CO_2 from the clinker production process.

CCU
Carbon capture & utilisation refers to the use of separated CO_2, such as for the production of synthetic fuels, for the cultivation of microalgae, or for the recarbonation of recycled concrete.

CCS
In addition to active use, we also carry out **carbon capture & storage**, i.e. the storage of captured CO_2 in suitable geological formations.

CCUS
Our **carbon capture, utilisation, & storage** projects cover the entire value chain – from CO_2 capture, transport, and storage to the utilisation of captured CO_2.

2024[1]

CCS
Brevik, Norway
Capacity: 400 kt CO_2 p.a.

2025[1]

CC
Hanover, Germany
LEILAC 1: finalised
LEILAC 2: engineering
Capacity: 100 kt CO_2 p.a.

CC
Mergelstetten, Germany
Oxyfuel pilot

2026[1]

CCUS
Edmonton, Canada
Capacity: 1 mt CO_2 p.a.

CCU
Safi, Morocco
Upscaling capacity

2028[1]

CCUS
Padeswood, UK
Capacity: 800 kt CO_2 p.a.

CCUS
Devnya, Bulgaria
Capacity: 800 kt CO_2 p.a.

CCUS
Antoing, Belgium
Capacity: 800 kt CO_2 p.a.

2030[1]

CCS
Slite, Sweden
Capacity: 1.8 mt CO_2 p.a.

CCUS
Mitchell, Indiana, US
Capacity: 2 mt CO_2 p.a.

CCS
Eastern Europe
Two large-scale CCS projects

1) Dates refer to the expected start of operation, depending on various factors incl. funding approvals.

We are currently focusing on **three carbon capture technologies** in particular:

AMINE TECHNOLOGY

At the end of the conventional combustion process, sulphur and nitrogen oxides are filtered out of the flue gas. The CO_2 is then separated from the remaining exhaust gas via a washing system using liquid amine. After separation, the CO_2 with a purity of about 99% percent can be used as a raw material or stored.

OXYFUEL TECHNOLOGY

The oxyfuel method is a clinker-burning technique in which pure oxygen is introduced into the kiln instead of air. This leads to a CO_2 content of up to 90% in the exhaust gases, which can be further upgraded to 99%. The aim is to capture the CO_2 in a more energy-efficient way than by post-combustion capture, as no additional heat is required.

DIRECT SEPARATION

A special reactor replaces the conventional calciner of the kiln system to separate the CO_2 already during calcination. Direct separation technology is supposed to enable the capture of process-related CO_2 without additional use of heat or any other commodity.

Brevik, Norway: Brevik CCS

The world's first large-scale facility for carbon capture in the cement industry has been under construction at our Brevik cement plant in Norway since 2021. The facility will use amine technology to capture 400,000 tonnes or 50% of the plant's emissions annually, starting 2024. According to the planned schedule, the CO_2 emissions captured will be transported to an underground storage site below the North Sea. The project is currently moving from planning to the instalment phase. As part of the project, the carbon capture plant is being integrated into the current cement plant without disrupting the ongoing cement production. Two years into the project, it is progressing well. This has been made possible by clear government support, the social acceptance of CCS technology in Norway, and successful cooperation with the respective authorities.

Mergelstetten, Germany: catch4climate

In order to further develop the oxyfuel technology for carbon capture, Heidelberg Materials is participating in a joint research project to construct an oxyfuel kiln line together with three other European cement manufacturers as part of the catch4climate pilot scheme. The catch4climate project, which Heidelberg Materials pursues together with Buzzi/Dyckerhoff, Schwenk, and Vicat, aims to create the necessary conditions for large-scale use of low-energy, and thus more cost-effective, carbon capture technologies at cement plants. To this end, a semi-industrial scale demonstration plant is currently under construction on the site of the Mergelstetten cement plant in Southern Germany. In addition to testing the pure oxyfuel technology, part of the CO_2 obtained will be used to manufacture climate-neutral synthetic fuels, such as kerosine for aviation. All permits have been required and the implementation phase has started.

Hanover, Germany: LEILAC

The EU-funded LEILAC (Low Emissions Intensity Lime And Cement) project, in which Heidelberg Materials is one of the strategic partners, aims to demonstrate the technical and economic feasibility of process technology designed to capture CO_2 in its purest form when it is released as the raw material is heated. After the construction of a 60-metre-high demonstration calciner at our cement plant in Lixhe, Belgium, and the successful completion of process trials, it was decided to transfer the LEILAC technology to industrial scale. Following a very successful first phase of the LEILAC project in Lixhe, Heidelberg Materials will work together with Australian technology company Calix and a European consortium to build a facility four times as large at our plant in Hanover.

Edmonton, Canada

At our cement plant in Edmonton, Alberta, we are developing North America's first industrial-scale carbon capture, utilisation, and storage solution in the cement industry. In the future, we intend to capture a total of around 1 million tonnes of CO_2 per year from the cement kiln and the connected combined heat and power (CHP) plant. Heidelberg Materials and Enbridge Inc. intend to collaborate on a carbon transport and storage solution for the captured CO_2. A detailed FEED study is being conducted before to take the final investment decision. Subject to the granting of carbon sequestration rights and regulatory approvals, the project could go into operation as early as 2026.

Safi, Morocco: CO_2 for the cultivation of microalgae

In cooperation with our Dutch partner OmegaGreen, we launched a large-scale research and demonstration project at our Safi cement plant in Morocco in 2018. In Safi, we use CO_2 captured from the cement kiln to breed microalgae, which can be used as fish food and other animal feed. We are currently producing approximately 25,000 kg of microalgae annually on a 0.5 ha area. The algae farm is operated by a local team, which means that new and sustainable jobs have been created in Safi in an innovative field. Similar exploratory research projects have already been carried out in Sweden, Turkey, and France. In 2022, we have installed and commissioned a spray-dryer which is now producing dry algae. Based on the interests in the market, the plan is to expand capacity gradually to reach a tenfold increase in 2026 compared to current production.

Padeswood, UK: HyNet North West

We are also planning a carbon capture facility at our Padeswood cement plant in the United Kingdom. In cooperation with the government-sponsored HyNet North West consortium, it will be connected to the proposed CO_2 transport and storage system. A CCS feasibility study has been conducted to establish a clear basis for planning and provide a cost estimate for the next phase. The project is expected to reduce regional carbon emissions by up to 10 million tonnes a year by 2030, including up to 800,000 tonnes from Heidelberg Materials' Padeswood cement plant.

Devnya, Bulgaria: ANRAV

ANRAV aims to be the first full-chain CCUS project in Eastern Europe. It will link carbon capture facilities at the Bulgarian cement plant of Heidelberg Materials' subsidiary Devnya Cement through a pipeline system with offshore permanent storage under the Black Sea. The project is carried out jointly with the oil and gas company Petroceltic. Subject to regulatory and permitting aspects, it could start operation as early as 2028, with a capturing capacity of 800,000 tonnes of CO_2 annually. The EU Innovation Fund, one of the world's largest funding programmes for innovative low-carbon technologies, will support Heidelberg Materials and Petroceltic with around €190 million, complementing substantial contributions by both partners.

Antoing, Belgium: Anthemis

Heidelberg Materials intends to equip its Belgian Antoing with an innovative hybrid carbon capture unit: the second-generation OxyCal concept combines the oxyfuel and amine capture technology in a hybrid unit that no longer requires an additional preheater tower. This means a significant reduction in the need for structural steel and concrete, which considerably improves the resource efficiency of the system. Once operational, the project will reduce CO_2 emissions from Antoing by more than 97 %, equalling around 800,000 tonnes of captured CO_2 annually. While the project will focus on the carbon capture process, collaborations will be established with various partners to transport and store the captured carbon, with the aim of creating a complete CO_2 value chain. To support the construction of the capture unit, the company will seek national, regional, and EU funding.

Slite, Sweden: Slite CCS

By 2030, we plan to develop a completely climate-neutral cement plant at our site in Slite on the Swedish island of Gotland. The facility in Slite will be designed to capture up to 1.8 million tonnes of CO_2 per year, equivalent to the plant's total emissions. In addition, the use of biobased fuels for the production of cement in Slite will be increased. After a feasibility study addressed questions concerning technology choices, environmental impact, legal aspects, financing, logistics, and energy supply, the project has now entered a more detailed engineering phase. According to the plans, the captured CO_2 will be transported to permanent storage site below the North Sea.

Mitchell, USA

The project at Heidelberg Materials' Mitchell, Indiana, cement plant aims to capture 95% of the CO_2 emissions from the newly renovated production facility and store them in a local onshore reservoir in the Illinois Basin. To advance the carbon capture project, we will now conduct a site-specific FEED study. In addition to evaluating the cost and performance of the overall project, the study will examine social, economic, and environmental impacts. Funding for the study has been granted by the US Department of Energy's (DOE) Office of Fossil Energy and Carbon Management (FECM).

CCS under construction

Good progress on the CO_2 milestone project

CCUS technology is key to decarbonising our cement and concrete products – and ultimately to decarbonising the entire building materials industry. The world's first industrial-scale carbon capture plant in the cement industry is currently under construction at our plant in Brevik, Norway.

Starting within 2024, 400,000 tonnes of CO_2 per year will be captured and transported by ship to an onshore terminal on the west coast of Norway. From there, the liquefied CO_2 will be transported by pipeline to the storage site below the North Sea, where it will be held permanently. The particular challenge here is that the facility in Brevik is being constructed while cement production continues as before.

As a first step, the foundations and concrete structures were put in place in 2022, and work is now beginning on the installation of the actual capture system. Its components – including pipes, pumps, valves, and electrical modules – are being assembled in nearby Trosvik before they are transported to the cement plant by cargo ships and lifted onto the site. One major heavy-lift operation is scheduled for summer 2023: a crane with a lifting capacity of 650 tonnes will move a series of parts and modules weighing between 80 and 350 tonnes into their final positions.

Circular & Resilient

Building a circular and resilient future

Sustainable revenue

With sustainable products and solutions, we are already achieving

34 % **in sustainable revenue**

Our commitment

Our Sustainability Commitments 2030

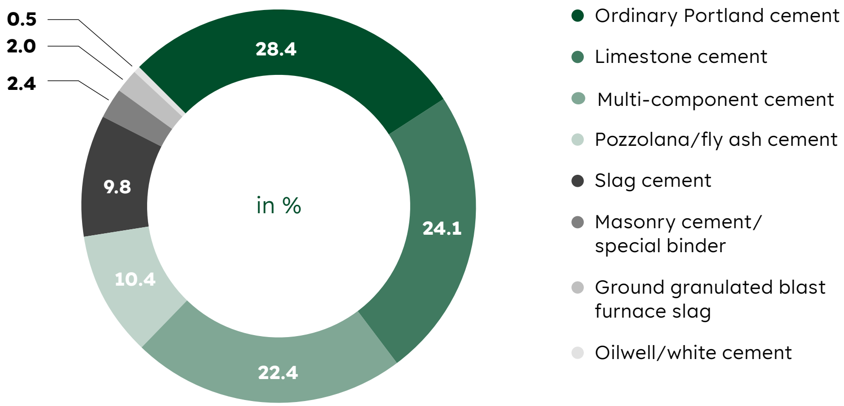
50 % **revenue**

We achieve 50% of our revenue from sustainable products that are either low-carbon or circular.

50% **circular alternatives**

We offer circular alternatives for 50% of our concrete products – aiming for full coverage.

Cement type portfolio



Research & development

GERMAN INNOVATION AWARD
FOR CLIMATE AND ENVIRONMENT
2022

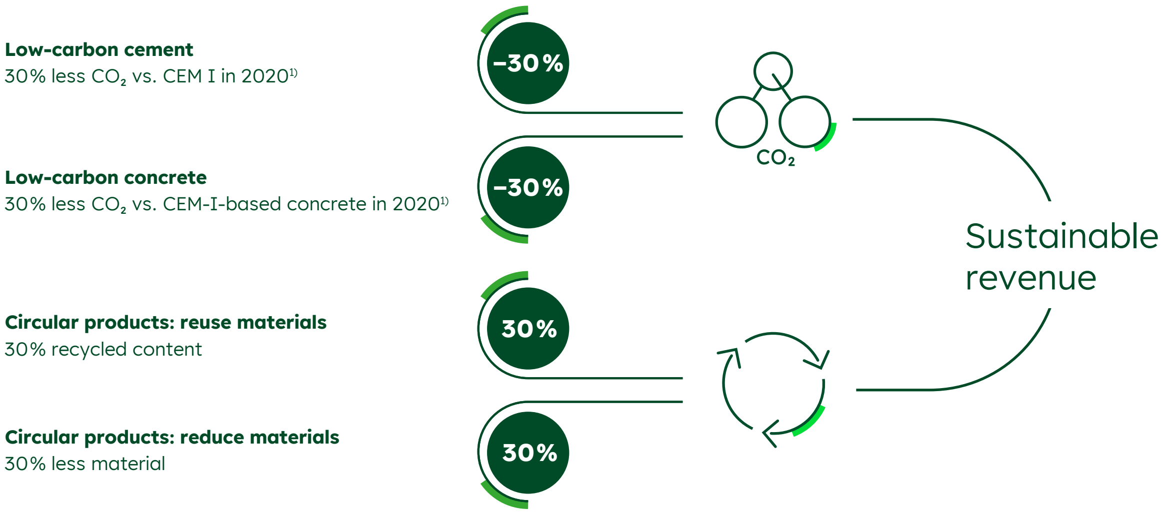
We won the German Innovation Award for Climate and Environment for our innovative **ReConcrete-360°** concept in 2022.

Sustainable products and solutions

Climate-friendly construction calls for climate-friendly building materials. We work intensively to develop and produce innovative, environmentally and socially responsible products that meet the highest quality standards over their entire life cycle. Through resource efficiency, co-processing of waste materials, and concrete recycling, we want to contribute to the successful growth of a circular economy.

We aim to generate half of our Group revenue from sustainable products by 2030. In doing so, we use four criteria as a basis, at least one of which must be fulfilled for classification as a "sustainable product."

Criteria for sustainable products



1) −30% vs. GCCA CEM1 in 2019/20, translates to <552 kg CO_2/t cementitious and <5.5 kg CO_2/m³/MPa

Strong local, sustainable, and low-carbon product portfolio

Sustainable building materials with the smallest possible carbon footprint are playing an increasingly important role for us and our customers. Our research and product innovation labs have developed various alternatives to traditional cement with reduced environmental impacts, including cements and concretes with improved carbon footprints as well as building materials with characteristics that support the use of less material and enable society to implement climate-friendly solutions.

Concretes with improved carbon footprints

By using substances such as blast furnace slag and fly ash as secondary cementitious materials (SCMs), we can reduce the CO_2 intensity of concrete. To improve the carbon footprint of our products based on Portland cement, we use what are known as additives. These are alternative materials that are produced during the manufacture of pig iron or when electricity is generated from coal in steel mills and coal-fired power plants and serve as source materials for composite cements, in which Portland cement clinker is partially replaced. In addition, we have been working for several years on the development of alternative binders with the aim of reducing or even completely replacing conventional clinker.

Concrete containing recycled aggregates

We offer concrete solutions containing varying proportions of recycled aggregates in all Group countries. While sustainable and environmentally friendly concrete products incorporating up to 100% recycled aggregates and low-carbon cement are available in several countries, in others, standards and norms, approvals, or political regulation must be put in place before such products can be introduced.

Innovative solutions with less material

Other innovative solutions reduce the amount of material needed, such as through precision engineering and the targeted use of material, or through the safe and cost-efficient renovation of infrastructure that has reached the end of its service life. Ultra high-performance concretes (UHPCs), for example, are characterised by very high compressive strengths. That means they can be used to build concrete structures that are remarkable for their economical use of materials as well as their reduced weight and slim construction. The use of UHPC in object renovation also avoids CO_2 that would otherwise be generated when the structure is demolished and rebuilt. 3D concrete printing is a particularly resource-efficient way of using materials: because the material is very precisely put only where it is actually needed, less concrete is needed overall for this type of construction.

Solutions supporting the energy transition and for clean air

Besides reducing our carbon footprint by using alternative raw materials and clinker technologies, our research laboratories are also working on products intended to contribute to a cleaner urban environment and support the energy transition. Over its life cycle, a building's energy and carbon footprint can also be significantly improved by implementing modern climate concepts using concrete. That is because concrete's ability to absorb and store heat means it can contribute to the passive heating or cooling of buildings.

Communicating with customers: our Sustainability Academies

Sustainable construction is more than just a trend. We are seeing significant, steadily growing demand for sustainable products across all customer groups. We share information about our sustainability targets and our sustainable products, such as low-carbon concretes or concretes with a higher level of recycled content, with internal and external audiences through our

Customer dialogue

Let's talk sustainability

Which sustainable products are suitable for my construction project? What opportunities are offered by concretes with a smaller carbon footprint or increased recycled content? And what contribution can the building materials sector make towards net zero? In addition to sharing information about our product portfolio and the benefits of different solutions, one of the main topics we discuss with customers is sustainability.

In numerous Group countries, we offer online and in-person programmes for private clients, architects, and construction companies, which are very well received. In 2022, as part of our "Let's talk sustainability" series, the team from our subsidiary Hanson UK provided insights into strategies for decarbonising the building materials sector. The programme included a panel discussion with key customers and a presentation by CSO Dr Nicola Kimm.

In Germany, we hold regular Sustainability Academies, giving customers information about the assessment and application of sustainable concretes. Similar content is also covered in person at Beton University by our Czech subsidiary. In 2022, for example, the participants had the opportunity to find out about the advantages of concrete containing recycled aggregates.

Sustainability Academy events. In several countries, we regularly hold face-to-face events or online seminars in which our experts pass on important background knowledge to the participating groups of people from the architectural field, construction companies, and the planning sector as well as private builders so that they can compare products more easily and weigh up possible applications with greater precision. In addition, the participants are given information about certification systems, guidelines, as well as funding criteria and options.

Our close proximity to the market enables us to provide our customers with extensive advice and develop our products in close consultation with them. The responsible departments and employees are directly incorporated into the organisation of the respective national subsidiaries and develop cements, aggregates, and concretes that are optimally adapted to local needs. This development work is often carried out through direct cooperation with our customers. However, our work does not end with the product, but also includes providing customers with expert advice on product usage. We sell standardised products whose effects have been analysed in detail. For all these products specific safety data sheets are required, which we provide to the customers. Customers who wish to file complaints can get in touch with their personal contact partners, whereby all complaints – whether of a technical, logistical, or commercial nature – are forwarded directly to the appropriate department.

Heidelberg Materials uses the Net Promoter System (NPS®) and full customer journey mapping to deepen our customer insights and optimise the customer experience. In recent years, around 3,000 optimisations based on customer feedback have been made to improve the experience we offer our customers. Our Net Promoter Score for 2022 is 47. We treat all the customer data we collect confidentially and in compliance with the GDPR, and we do not pass on any information to third parties. For 2022, we are not aware of any justified complaints regarding violations of the protection or loss of customer data.

Digitally sustainable

Our digital teams are important partners in improving our sustainability performance. Digital solutions help us to optimise our ESG reporting, measure sustainable revenues, and provide information on the sustainability performance of our products, such as environmental product declarations (EPDs). They also support us in communicating and explaining our sustainability targets to customers. In operational terms, we can use digital applications to increase the efficiency and sustainability performance of our production units. We regularly review available digital technologies and products to examine how these might improve sustainability in our own locations as well as for our customers.
Non-financial statement

Circular economy

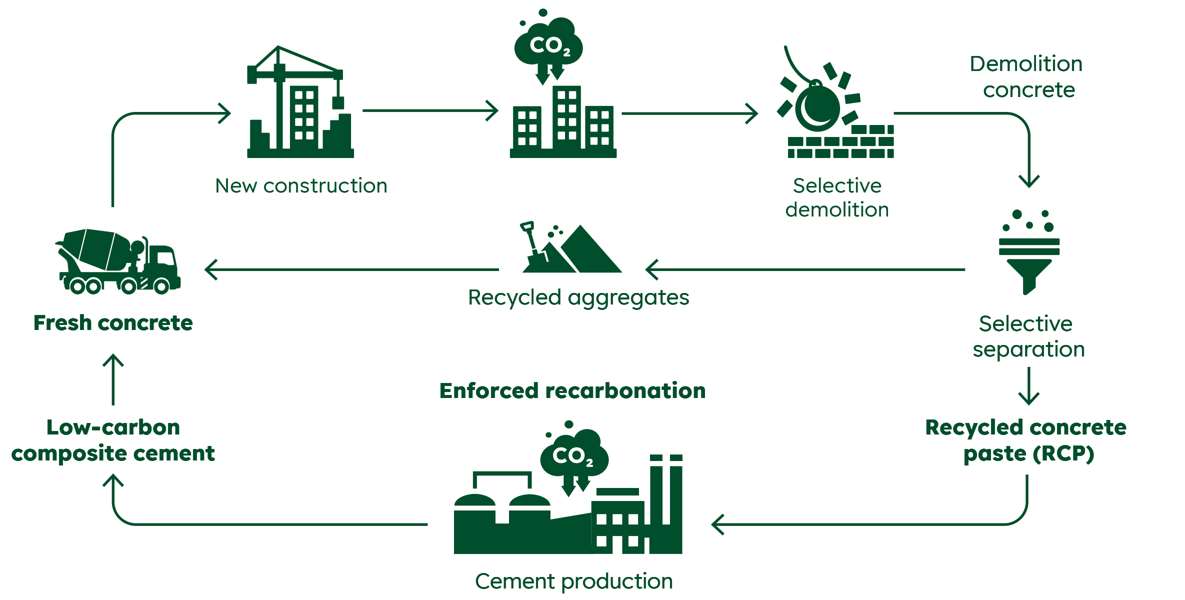
Increasing the circularity of our products is a key component of our sustainability strategy and an imperative given the increasing demand for housing and infrastructure, coupled with the limited availability of raw materials. Concrete is fully recyclable – which means our industry can have a big impact. Through resource efficiency, co-processing of waste materials, and concrete recycling, we want to contribute to a functioning circular economy.

Leading the way in the circular economy

Heidelberg Materials is strengthening circularity along the entire value chain. We also see the increasing importance of resource efficiency and closed material cycles as an opportunity to develop new business models and drive sales of sustainable products. Through our subsidiaries, we are already active in the recycling business in several countries and are working on the targeted processing of concrete components, as well as their recarbonation and reuse in concrete as a building material.

By 2030, we want to offer circular alternatives for 50% of our concrete products. This will allow us to conserve primary resources and meet our customers' increasing demand for sustainable building materials in the future. Building material recovery and concrete recycling will make a significant contribution here and are crucial to us achieving our sustainability targets.

Transforming demolition material into a raw material source



Conserving primary raw materials through the use of recycled materials

Demolition concrete is still partly disposed of at landfill sites today or is often used in road construction for compaction or as a frost protection layer. This does not do justice to the building material's value-adding potential or its complex, energy-intensive production process. More can be achieved through recycling.

On the one hand, this saves primary raw materials such as sand and gravel, which are used as aggregates in the production of concrete. And on the other hand, the fine materials obtained during recycling can be separated off as so-called cement paste (recycled concrete paste, RCP), carbonated, and then returned to cement production as an alternative cementitious raw or filler material.

The expansion of our recycling activities represents a further step towards the implementation of our circularity strategy and guarantees a supply of recycled aggregates for our ready-mixed concrete sites.

From demolition material to raw material source – 100% recovery of all concrete components

Heidelberg Materials is working intensively on innovative methods for processing, reprocessing, and recycling demolition concrete, a valuable material in the construction cycle. The opportunities afforded by innovation in this area are great. In line with the European Union's circular economy targets, Heidelberg Materials is also involved in research projects investigating the reuse of recycled building materials. We won the German Innovation Award for Climate and Environment (IKU) in the "Process Innovations for Climate Protection" category for our innovative ReConcrete-360° concept in 2022.

In ReConcrete-360°, waste concrete is crushed using novel processes and sorted almost homogeneously into its components to obtain not only sand and gravel but also hardened cement paste. The latter can be reused as a valuable low-carbon raw material in clinker and cement production, replacing natural limestone as a raw material – in support of circularity. In addition, the hardened cement paste can absorb and permanently bind CO_2, thus acting as a carbon sink.

With ReConcrete, we have been able to show on a pilot scale that concrete can be fully recycled without loss of quality through selective processing of its individual components. The process concept will now be further developed and scaled for industrial application.

EcoBlock+: efficient use of leftover concrete

On delivery to construction sites, ready-mixed concrete must be used within a very short time – or else it hardens. A key concern for concrete manufacturers is therefore how to efficiently use concrete residues that arise when customers do not consume all of the concrete supplied or from a surplus during production.

Our Lithuanian subsidiary HC Betonas has found a sustainable solution for the excess material and created a new product in the process: under the EcoBlock+ label, standardised, stackable blocks are cast from leftover concrete. These blocks are suitable for a wide range of building projects and for use on construction sites. They can be combined flexibly and without binders to form durable constructions but can also be disassembled again afterwards and used elsewhere. The recycled concrete thus saves material and time.

Alternative fuels

Many by-products from other industries serve as valuable raw materials for Heidelberg Materials. We use these resources as alternatives to finite natural raw materials and fossil fuels in the production of cement. In this way, we are helping to conserve resources and solve the problems associated with waste disposal faced by municipalities and industrial companies near our plants. At the same time, these efforts are also reducing our CO_2 emissions. We want to increase the proportion of alternative fuels in our fuel mix to 45% by 2030. In 2022, the figure was 28.7%. The waste-based biomass used, which accounted for around 13% of the fuel mix in 2022, makes a special contribution here, as it is considered climate-neutral under European legislation. We intend to increase this figure to 20% by 2030.

Alternative fuels are generally waste that either cannot be recycled in full and would therefore be uneconomical to recycle or can only be incinerated for energy recovery to ensure safe disposal. In this scenario, co-processing in clinker kilns for thermal energy recovery is regarded as a worthwhile option, as it not only uses the waste's calorific value but also embeds its mineral components into the clinker as raw material. The waste is co-processed without any residue in a burning process that meets the same strict emission standards as those set for waste incineration plants.
Non-financial statement

Waste

Our main focus in waste management is to minimise production waste. For example, kiln dust that is a by-product of clinker production is generally reused as an alternative raw material in the production of certain types of cement. This dust has to be removed from the kiln systems at several facilities in order to prevent disruptions to proper kiln operations. In some exceptional cases, the locally produced cement type portfolio prevents us from fully recycling the dust. A second possibility for us is to use the kiln dust as a raw material for the production of special concrete. If no other option is available, it can be deposited in underground landfill sites in a controlled process. The local operating permit at each plant specifies the allowable amount of process-related waste products and how it is to be used.

Excess concrete is also generally reused in our plants: either as fresh concrete or cured in the form of building elements, which are then used, for example, to secure construction sites. If concrete cannot be reused fresh, it is still possible to crush the completely recyclable concrete and return it to the production cycle. With digital solutions such as our OnSite app, we also support our customers in demand planning and ordering to avoid overproduction in the first place.

Use of hazardous materials
The careful handling of hazardous wastes is a key element of every country's waste disposal infrastructure. For most types of hazardous waste, reuse in cement plants has proved to be a safe means of utilisation. The high temperatures of over 1,450°C and long incineration period in the kilns ensure that all harmful components are completely destroyed. This has been confirmed by measurements taken by independent state-certified institutes.

Nature Positive

Building a nature positive future

Quarries

204 PROJECTS were submitted to our Quarry Life Award biodiversity competition, 7 of which received international awards.

92% quarries with an after-use plan.

51% proportion of quarries located near an area of high biodiversity value with biodiversity management plans.

Our commitment

[Our Sustainability Commitments 2030]

100% of our active quarries contribute to the global goal of nature positive, with → 15% space for nature.

100% of sites in water-risk areas implement water management plans and water recycling systems.

Water recycling

WE COLLECTED **2.0 MILLION CBM** OF RAINWATER IN 2022.

Water consumption

288 LITRES PER **TONNE OF CEMENT** specific water consumption in 2022.

Water and hygiene

WASH Pledge for access to safe water

We have implemented the **World Business Council for Sustainable Development's** WASH Pledge for access to safe water, sanitation, and hygiene at all production sites.

Biodiversity and water management

Biodiversity

Our target: nature positive

The extraction of raw materials impacts nature in many respects, changing landscapes and natural habitats. Responsible land management is therefore an essential element of the Heidelberg Materials sustainability strategy, and we are committed to working towards the global goal of nature positive.

"Nature positive" means stopping and reversing biodiversity loss in order to ensure a global net gain for the planet. In simple terms, there should be more nature by 2030 compared with 2020. For this purpose, it is important to protect spontaneously created natural areas within active quarries in addition to integrating biodiversity features into the post-extraction reclamation plans. Companies such as Heidelberg Materials can play their part in halting and reversing biodiversity loss by addressing their own impact on nature and implementing measures that achieve positive results for nature and outweigh their negative contributions.

Biodiversity management at our locations

As a business reliant on the extraction of raw materials, we acknowledge our impact and accompanying social responsibility. Our quarry development activities – sustainable extraction methods, reclamation/restoration, and intensive cooperation with nature conservation groups – take account of nature. For many years, we have been committed to protecting and preserving native animal and plant species.

Numerous scientific studies demonstrate that active quarries can be extremely valuable to nature. They offer a wide variety of habitats, including undisturbed biotopes that are rarely found in today's developed landscapes, which support many endangered and/or protected species, such as the sand martin, the yellow-bellied toad, the eagle owl, or the Eurasian otter.

Post-extraction reclamation further offers significant opportunities to create critical habitat types that support numerous flora and fauna, and has the potential to increase the ecological value of the site. To build on the positive impact our biodiversity management and reclamation can deliver, we work closely with nature conservation organisations, local authorities, and neighbouring communities to make an important contribution to restoring biodiversity.

Cooperation with nature conservation organisations

Partner organisations help us to minimise our impact on the environment and promote biodiversity at our quarries and in their surroundings. Since 2011, we have greatly benefited from a partnership with the largest international nature conservation organisation, BirdLife International. Together, we aim to minimise negative environmental impact and promote biodiversity in and around our quarries. BirdLife International and its national partner organisations help us maximise the role our extraction sites can play for biodiversity by imparting knowledge, sharing best practice, and working on the ground with our operational staff to engage and empower them. More than 40 biodiversity projects have been initiated worldwide since the start of this cooperation.

While the priority action for Heidelberg Materials is protecting and enhancing biodiversity in our own operations, it is also important to support the education of wider society about the loss of biodiversity and its consequences.

Therefore, during the reporting year, Heidelberg Materials again supported BirdLife International's Spring Alive project, which aims to foster an interest in migratory birds among children in Europe and Africa, as well as their families and teachers. In 2022, the focus was on "Citizen science for birds," which encouraged participants to get involved in monitoring these species and to learn more about their behaviour and habitat needs.

Quarry Life Award

As a unique initiative in the building materials industry, the Quarry Life Award is an integral part of the Heidelberg Materials sustainability strategy. The research and education competition supports our approach to innovative biodiversity management, promotes research, and engages stakeholders around the world.

Researchers, university students, and non-governmental organisations as well as members of our local communities are invited to develop and – provided they qualify to participate in the competition – implement ideas for biodiversity-related projects at our company's quarries worldwide.

Heidelberg Materials uses the award-winning projects as a basis for developing best practices for quarry management, which are then rolled out globally. In this way, we want to promote the evaluation of the

quarries' ecological value and support the development of new methods that benefit scientists, government authorities, and our company as well as nature.

The fifth edition of the **Quarry Life Award** was launched in May 2021. Heidelberg Materials opened its quarries and gravel pits from January to September 2022 so that the selected projects could be implemented. At the end of 2022, the winners were awarded at national and international level.

Water management

Heidelberg Materials has committed itself to limiting the impact of its activities on the limited natural resource of water to the greatest possible extent. We comply with stringent environmental regulations to ensure that our raw material quarrying does not endanger local bodies of surface water or groundwater resources. Through conservation measures and efficient use, we want to conserve water and minimise negative effects. This can be achieved by using rainwater, utilising reuse and recycling technologies, or working with local communities on water-related projects.

Water management

Our locations in India are water positive

The state of Madhya Pradesh is one of the most severely affected by drought in India. There, as in other regions of the country, we are working intensively to effectively address the scarcity of water.

In accordance with ISO 14046 and the relevant TÜV SÜD protocol, the successful actions of our locations in India for ensuring responsible water use were again confirmed in 2022: in total, about 6.5 times as much water was recovered as is required for our production processes. This corresponds to a water surplus of more than 10 million cbm. With the help of various rainwater collection systems, the Yerraguntla site even managed to provide the local community with around 12 times as much water as it consumed.

With a blue water footprint of 0.25 cbm/t, our Indian subsidiary is again considered water positive. Water positivity is an approach characterised by promoting clean water and reducing water consumption. It is often associated with secure access to clean water as a fundamental human right and raising awareness of water-related issues such as scarcity and pollution.

The importance of water for our production processes

Water is used, for example, when washing gravel and sand as well as for cooling and cleaning transport vehicles. It is also one of the source materials for concrete manufacturing and becomes part of the building material during its production. We obtain some of the water we use from the public water supply, but the majority comes from our own approved well systems or from rivers and lakes. The use of rainwater in cleaning and production processes is also becoming increasingly important. All direct withdrawals are heavily regulated and closely monitored by governments worldwide. The local operating permit at each plant specifies the allowable amounts of water extraction and recirculation. Some of the water – the water used for cooling, for instance – evaporates and is released into the atmosphere. The cleaning water that accumulates when transport vehicles are washed is fully recycled. We dispose of the domestic wastewater accruing at our company buildings via the municipal wastewater systems.

Sustainable water management

A water reporting system based on the GCCA guidelines has been introduced at all of our company's cement plants. We work continuously to reduce our water consumption, for example, by switching to closed cooling circuits and recycling systems. We have therefore also started to introduce measurement systems and key figures on water reporting in our aggregates and ready-mixed concrete business lines.

We use an integrated approach when considering environmental risks, which are increasingly related to water due to climate change. While working to reduce our consumption of fresh water worldwide, we take local conditions and challenges into account in the implementation of specific water management measures. The particular conditions in each region in terms of factors such as climate, water resources, population growth, and economic development influence the availability and use of water. We therefore rely on individual approaches tailored to the respective locations in order to reduce water consumption as far as is economically and technically possible. A local approach can also be more participatory and involve key stakeholders such as communities, businesses, and governments in the development and implementation of water reduction initiatives. This can lead to greater ownership and increase the sustainability of water reduction efforts, and it also enables better matching of targets and measures to local conditions.

Because we are facing a water surplus in other regions of the world, where we need to pump off large quantities of water in order to operate our quarries, it does not make sense to define a general global reduction target for the Group based on quantified water withdrawal rates.

Safe & Inclusive

Building a safe and inclusive future

5 Gender Equality
8 Decent Work and Economic Growth

Our commitment

Our Sustainability Commitments 2030

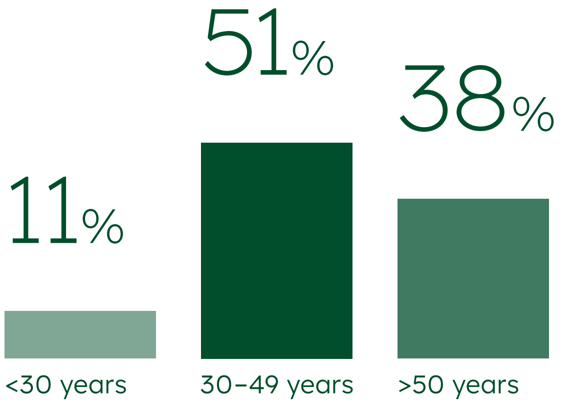
25%
of leadership positions filled **by women.**

100%
of our sites to have community engagement plans **by 2030.**

−50% compared with 2020
reduction in LTIFR (lost time injury frequency rate) and zero fatalities

1 day
of paid leave for voluntary community work per year offered to all employees.

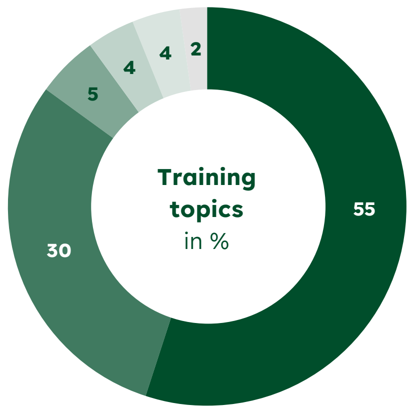
Age structure within the Group



Female executives

14%
share of female employees
N-1 & N-2 with leadership responsibility

Training hours



28h
per employee

- Occupational safety training
- Specialist training
- Other
- Soft skills training
- Management training
- Language courses

Our employees

Principles

We are living in a time of change. As one of the leading companies in our sector, we and our employees have the opportunity to drive this transformation in a positive direction every day. Progress and innovation in the areas of sustainability, circularity, and digitalisation are the focus for all of us.

To this end, at Heidelberg Materials we foster a corporate culture that is characterised by mutual respect and trust, creativity, and dedication, as well as sustainable thinking and action. Our diversity, regardless of gender, age, religion, origin, sexual identity, and disability, makes us the company we are today and will continue to play a major role in the future. We are especially proud of the international nature of the workforce at our locations and headquarters, which is made up of local employees and managers from more than 60 countries. Our staff form the foundation of the worldwide success of Heidelberg Materials.

Employee satisfaction and empowerment is a central pillar of the actions we take as a company. Therefore, in addition to fair remuneration and flexible working models, we also count strengthening diversity, cohesion, and individual qualification opportunities among our HR management principles.

Our Leadership Principles prescribe binding rules for personnel management. Respectful behaviour towards co-workers, employee empowerment and development, and a commitment to open dialogue in support of a lived feedback culture are indispensable for us.

Diversity as a factor for success

Appreciation and mutual respect are very important to us. We consider lived diversity to mean that our employees, with all their diversity, can feel secure and make a contribution. Their different perspectives and backgrounds are an essential building block for shaping our future.

This diversity is also reflected in our presence in international markets, our customer structure, and our business environment. It is therefore of strategic importance that we attract and advance highly qualified and committed employees around the world who can bring various social and professional skills to our company and thus contribute to our business success.

To fully leverage this potential, we promote the development of an inclusive culture at all levels of our organisation. And with clearly defined contact partners at HR, Compliance, the works council, and NOW (Network of Women), our employees can contact us confidentially at any time in the event of discrimination, so that any indications of incidents can be followed up directly and consistently.

By signing up to the **Diversity Charter**, we have made a public statement of our respect for diversity. Our annual, internal Diversity Week celebrates our cultural diversity and active inclusion at Heidelberg Materials. Activities on the German Diversity Day are intended to further strengthen our focus on diversity.

Women in leadership positions

As a further step on the path to more equality, Heidelberg Materials aims to achieve a proportion of women in leadership positions of 25% worldwide by 2030 and 27% in the first and second leadership levels in Germany by 2027.

Well-thought-out measures for the recruitment, promotion, and retention of women at Heidelberg Materials – in general and at leadership level – are the cornerstones for further expanding the proportion of female professionals. These include the identification and active promotion of junior female staff, both with internal programmes and through cross-company mentoring in cooperation with other companies from the Rhine-Neckar metropolitan region. Our efforts are supported by awareness-raising measures relating to equity within the company, as well as targeted mentoring and sponsorship by the Managing Board and senior management.

The global NOW (Network of Women), which was founded in 2011, also ensures more internal networking and promotion. In addition to professional development, the principal aim is to increase awareness throughout the company of the changing demands on working and living environments. Through Allies of NOW, male employees can also actively advocate gender equality at Heidelberg Materials.

Improving work-life balance

In our efforts to attract the best skilled workers, we see it as our duty to take social change into account and encourage a good work-life balance through flexible working time models and mobile forms of work. Because of the small size of our locations, cooperation with external networks has proven itself, for example in terms of children's day care and holiday programmes or caring for family members. Employees benefit from having easy access to a professional and flexible network at reasonable costs. As part of our FIT for FAMILY initiative, we have also entered into cooperation with day-care centers for the location in Heidelberg, Germany. These arrangements mean we have our own quota of places to offer our employees.

Employee benefits

In addition to development and empowerment, the benefits we offer are also crucial to the successful recruitment and retention of our employees. Attractive remuneration, including regular wage/salary reviews as well as extra Christmas, holiday, and annual payments, contributions to capital formation, and a company pension plan are standard with us. In Germany, we have created a matching model of contributions from the employer and the employees within the framework of the pension scheme. In countries without statutory retirement or health insurance, we support our employees at least in line with local practices.

Our Group is also confronted with the consequences of demographic change; around a third of our employees are over 50 years of age. We are responding to this

Balancing work and private life

Job sharing at Heidelberg Materials

Pia Rose and Eylem Vespermann work at the Heidelberg Materials headquarters, where both share the role of Head of Group Financial Planning and Analysis. Pia Rose has been with the company for almost ten years and has worked in various roles, most recently as Group Controller. In 2019, she was promoted to Team Lead for the North America Group area. Eylem Vespermann joined Heidelberg Materials in 2018 as Group Controller. After a few months she became Team Lead for the Western and Southern Europe Group area.

When the position of Head of Group Financial Planning and Analysis became vacant, one of them was just about to go on maternity leave and the other had recently returned from it. A joint application seemed a good way to reconcile the challenges of the new position with family life. They applied and ultimately got the nod. Since then, the two have been working successfully in the new role. Heidelberg Materials drew attention to their model of collaboration in various internal and external communications in 2022 to raise awareness of job sharing as a career option.

trend through active generation management and by offering numerous health management and preventive care measures adapted to regional requirements.

Flexible working time models, a digital workplace, and mobile working have become the norm for us in our commitment to work-life balance. This offering is complemented by virtual workshops and preventive screening, covering many different health topics, as part of our health management activities. The sports groups, courses, and our own gym at our headquarters support mental and physical health. To promote sustainable and flexible mobility, we also subsidise offers such as the JobTicket public transport and JobRad bike leasing schemes.

Through trainee programmes, dual apprenticeship and study partnerships, specialist and managerial development, and professional training, we invest specifically in the best possible qualification of our employees. With our e-campus and the possibility of international work assignments, we can also hold our own in the global labour market.

Remuneration policy and working time regulation

The remuneration systems at Heidelberg Materials are based on performance and results in accordance with the market standards for internationally operating companies in our sector. Alongside fixed remuneration governed by a collective agreement or an individual work contract, our employees also receive variable remuneration elements based on their individual performance and on corporate success. Our CO_2 reduction targets are consistently anchored in our global remuneration systems as well: the full variable remuneration can only be achieved if both the financial targets and the sustainability target are met. This regulation has applied to all members of the Managing Board and to every bonus-eligible employee worldwide since the start of the 2021 financial year.

We consciously aim to achieve a high variable element as part of the total remuneration of our managers in order to directly reflect the connection between personal performance and corporate success.

Collective regulations apply to more than half of the Group's employees. The employees in our foreign subsidiaries benefit otherwise from attractive remuneration systems that correspond to the respective local market conditions.

Our working time regulations comply with the legal requirements in effect at our respective locations. We promote adherence to these regulations by means of our whistle-blower system, which employees can use to individually report possible violations (passive monitoring). To enable flexible working time options, we offer models such as flexitime, working time accounts, part-time work, and leaves of absence, for example in the form of a sabbatical, to our employees in many countries. Older employees also have the option of switching to partial retirement.

Employment and co-determination

Employee co-determination has always been of great importance to us. Statutory, collective bargaining, and company regulations are implemented jointly in close cooperation with employee representatives. The works council and Group management work together in a spirit of trust.

In accordance with the defined co-determination and participation rights, the relevant committees are informed in good time so that opinions can be obtained, and then agreements are made with them. Heidelberg Materials works consistently and intensively with employee representatives in a spirit of trust. These representatives are involved in numerous committees and are informed at an early stage about operational changes. In the event of a reorganisation or job cuts, we work in close consultation to achieve a socially responsible solution and, for example, initially examine the possibility of transferring employees within the Group. If this is not feasible, we try to cushion the individual impact through retraining, early-retirement schemes, outplacement, and severance payments.
Non-financial statement

Human resources development

Talent management

Qualified and motivated employees are an indispensable prerequisite for the success of Heidelberg Materials. Identifying, developing, and – in competition with other companies – retaining their talents are therefore at the core of the Group-wide personnel policy. We are conscious of the fact that strategic apprenticeships and employee training as well as new career paths often play a key role, as our employees are constantly confronted with new innovations, processes, technologies, and increasing competition. This means we want to continuously improve our skills in order to remain relevant and flexible – as a Group and as individual employees.

We use the Heidelberg Materials competence model to do so. It defines the essential professional and personal capabilities and skills that are critical for the success of our business. It thus enables systematic, Group-wide assessments of performance and potential in accordance with standardised regulations and serves as a basis for strategic personnel development and successor planning. Superiors and employees discuss development opportunities and prospects within the framework of structured appraisal interviews. This dialogue helps us to fill key positions worldwide with top-class candidates from within the business, to develop top talent in a targeted way, and to retain our employees for the long term by means of personalised development planning.

Education and training

Female driver training in Australia

Our Australian subsidiaries Hanson Australia and Alex Fraser were awarded the Freight Industry Association's Female Leadership Award in 2022 for their Trainee Driver Program for Women.

The programme was launched in 2018 as a practical measure to increase the proportion of women in the companies. It offers women with a car driver's licence the opportunity to take further lessons in order to qualify as fully fledged truck drivers – with the prospect of permanent employment as a tipper or concrete mixer driver.

More than 60 women have already found full-time employment with Hanson Australia or Alex Fraser through the Trainee Driver Program. In addition to increasing the recruitment rate for female professionals, the companies are thus also focusing on the long-term career development of their female employees and on strengthening diversity as part of the corporate culture.

Education

For Heidelberg Materials, forward-looking HR management means consistently investing in training. With an apprentice retention rate of 85% in Germany, steady growth of qualified young talent is guaranteed.

In addition to technical skills for ensuring functionally sound processes, digital competences have also become indispensable. We already cover the technical part with virtual learning platforms and multilingual e-learning courses, specifically developed by the German Cement Works Association (VDZ). A complete educational offering is ensured through additional training covering professional use of programmes for virtual communication and cooperation, how to deal personally with the new work and life situation, and topics of mental health and resilience.

As a manufacturing Group, occupational safety is always a key element of our training and career development programmes. In addition, we focus our efforts on specialist training and the training of our managers. Our training programmes in virtually every work area are characterised by practical and business-oriented learning and enable our employees to develop their skills in the best possible way.

The Cement Academy of the Competence Center Cement (CCC) offers seminars and training sessions around the world for the engineers and technicians at our cement plants, while the Aggregates Academy of the Competence Center Aggregates & Asphalt (CCA) provides apprenticeships and employee training in the aggregates business line. Process simulators and various web-based learning programmes, including the multilingual Cement Manufacturing Curriculum, on which more than 3,000 employees are enrolled, are regularly used to supplement our classroom courses.

Strengthening digital competences

There is undeniably a need to build and expand digital competences, drive change processes in the context of digital transformation, and further digitalise personnel processes and systems. Our efforts are focused on fundamental digital media skills as well as topics related to specific functions. To increase the transparency of our digital activities for employees, all key global digitalisation projects and the tools used within the Group are explained on a platform to which all employees have access. We used external training databases to also significantly expand e-learning offerings on various digitalisation topics in the past year.

Training on the use of virtual communication and collaboration tools also accounted for a large part of demand in the past year. To meet this demand, we offer both in-house courses and comprehensive digital training and certification from external partners (Microsoft certification tracks).

Successor planning

Securing and developing junior executives is an important pillar of our personnel development strategy. We have intensified our activities aimed at expanding our development programmes and strengthening our recruitment of university graduates worldwide. We offer them extensive, international trainee programmes focusing on the areas of technology, sales, finance, HR, and procurement, as well as interdisciplinary posts.

Through a special programme, we also equip highly qualified engineers in the cement business for senior engineering positions. The participants undergo individually tailored training programmes that allow them to gain the necessary knowledge, skills, and experience to prepare them for the next stage of their career. Spending time at cement plants in different countries is a key element of the programme's success.

Since 2013, Heidelberg Materials has been the proud recipient of the trainee seal of the German initiative for career-enhancing and fair trainee programmes each year for our programmes for the advancement of future executives. As a member of the Fair Company initiative and bearer of the Fair Company seal, we have also been voluntarily committed to the creation of fair and attractive working conditions for trainees and young professionals. **Non-financial statement**

Occupational health and safety

Occupational health and safety is one of the core values of our Group and therefore a fundamental element of our work processes. Our declared aim is to do zero harm. With effective preventive measures, we intend to reduce the risk of accidents and injuries as well as the risk of occupational illness.

The health and well-being of our employees, our contractors, and the people in our local communities are at the heart of our actions. We believe that work-related accidents and occupational diseases, including mental illnesses, are generally preventable and that a safe working environment is also the most successful in the long run. Our principles for protecting our own employees as well as those of companies contracted by us and those of third parties are specified in our Group policy on occupational health and safety.

Although the management of Heidelberg Materials has overall responsibility for ensuring that our working environments are safe, everyone involved also has individual responsibility: employees, contractors, and visitors are required to familiarise themselves with our occupational health and safety measures. They must observe all applicable rules, regulations, and work instructions and wear the personal protective equipment stipulated for the relevant situation. It is therefore also important for us to have a good working relationship with the employee representatives, and this is also laid down in our Group policy on occupational health and safety. They represent over 97% of our employees.

Occupational safety at our locations

We work hard to minimise and prevent risks for our employees, customers, suppliers, and other third parties. To this end, we carry out regular risk assessments at our locations so that we can evaluate risks and take appropriate protective measures. Based on the results of these risk assessments, we have introduced and continuously updated various Group-wide safety standards in recent years in order to address activities with particularly high risks consistently. These standards are translated into local measures at our locations and, if necessary, supplemented by additional measures. As part of workplace inspections, we check compliance with these internal standards as well as with other legally mandated external requirements. Any shortcomings we identify are rectified as quickly as possible.

All our measures give due consideration not only to our own employees but also to the employees of external companies. They work for us in areas such as production, maintenance and repair, transport, other services, and consulting. We have therefore addressed the issue of contractor safety with a separate Group standard to take account of the particular requirements placed on external companies as well as those that must be met by Heidelberg Materials when engaging external companies.

Transport is another important focus of our work, as traffic accidents have unfortunately repeatedly led to uninvolved third parties sustaining injuries or even losing their lives. We address this issue in training courses for our own drivers and those who drive on our behalf. The driver training courses aim to raise drivers' safety awareness so that they can identify and reduce potential risks at an early stage. This training in defensive driving is not only theory based; it is also increasingly delivered using driving simulators, at driving safety centers, or through supervised driving. In addition, we are making greater use of technical aids. As well as fitting vehicles with various assistance systems and using such systems, examples of this approach also include checking the roadworthiness of third-party vehicles before loading.

Improving mental health

In addition to the measures outlined above for the prevention of accidents and standard occupational diseases, various Group countries are also increasingly working with external organisations in order to improve the mental health of employees. The idea is to raise awareness of mental health problems and train employees to recognise warning signs and offer support. The aim of the measures is to dispel prejudices and encourage those affected to talk about their problems and seek help.

In recognition of the sensitivity of the topic and to make it easier for those affected to access appropriate services, many of our subsidiaries offer external support programmes that provide help anonymously and free of charge. Countries in which such programmes are available include Germany, the UK, Belgium, Canada, the USA, and Australia.
Non-financial statement

Social responsibility

As a global Group with a strong regional business focus, we operate at many locations across the world. Our production and quarrying sites are generally designed for a service life of several decades. To maintain acceptance of our business activities at the sites over these long periods, we are active in the communities close to our plants and fulfil our corporate social responsibility (CSR). We create jobs and promote local economic development with our wages, investment, purchasing, and taxes, particularly in economically weak regions.

Social engagement at our locations

We have made a commitment to social responsibility in our Code of Business Conduct. At our locations, we strive for a constructive, trusting, and neighbourly relationship with local residents. We support the social and economic development of our neighbouring communities and foster transparent communication with all stakeholders. We aim to work with local partners to create added value both for our Group and for the local communities. People in the communities where we operate also expect us to contribute to the areas surrounding our production sites by regularly providing information about our business activities and through our commitment to local social, economic, and environmental development. Taking social responsibility and maintaining good relationships with our stakeholders – particularly at our production sites – are management tasks. The national management team, together with the national CSR manager, is responsible for social engagement in each country. Funding decisions for individual countries are made by the national management teams within their budgetary framework. Together with the location representatives, they are also responsible for analysing local needs and for selecting, implementing, and monitoring projects.

Involving local communities

We involve local communities in our business activities through various dialogue formats as well as community engagement plans. Among other things, these strategies include long-term partnerships with non-governmental and non-profit organisations. In addition, we keep the local communities and stakeholders informed via newsletters or at open days.

We have also defined clear evaluation criteria to ensure that our activities are both transparent and effective. We support projects, initiatives, and organisations that are active at our locations or to which we have a direct link. We attach great importance to ensuring that the guidelines and principles of these organisations align with our own corporate philosophy.

Our engagement is focused on the following areas:

- Culture: we promote cultural initiatives for all age groups in our local communities.
- Environment: we support initiatives that promote environmental protection and strengthen the diversity of nature at our locations.
- Infrastructure: we provide practical help in the construction of buildings and infrastructure by making products, financial means, and expertise available.
- Education: in this area, we are guided by the specific needs of our locations. We foster potential and encourage initiatives such as education partnerships.

Focus of our engagement in 2022

At Heidelberg Materials, we stepped up our humanitarian efforts in 2022 in response to the Russia-Ukraine war. The country organisation in Poland, for example, took direct action and made the conference center on site available to host refugees. In addition to numerous other initiatives there, financial aid was provided for Ukrainian students at the University of Opole, a charity run was organised, and deliveries of relief supplies to Ukraine were supported. In Germany, too, one of our buildings was made available to host refugees and a fundraising campaign was organised among employees.

Also in 2022, we extended the scope of our project providing practical training in the construction trade in Togo, which gives young people the opportunity to improve their employment skills and thereby contribute to local economic development in the long term. In this second phase of the project, the training was expanded to include multiple regions and further job profiles, such as electrician and farmer.

We also took further steps to strengthen our management and reporting processes and improve the structure of our social engagement in the various countries. To this end, we have tied our internal reporting more closely to financial reporting. In 2022, we introduced internal reporting of our monetary and material donations across the Group, so that our engagement is now more transparent, measurable, and verifiable.

Local engagement

Environmental education on Safi beach

Our subsidiary Ciments du Maroc has been supporting the “Plages Propres” (clean beaches) programme in the region around the Safi plant on Morocco’s Atlantic coast since 2001. Every summer, our employees work on three beaches as part of the preparation of this campaign, which combines environmental education with leisure activities for children and young people. In 2022, around 8,000 people took part in over 80 events.

The youngsters have the opportunity to participate in sports competitions, creative workshops, and organised games. The programme also features daily waste collection activities on the beach, using play to introduce the topics of separating and recycling waste – and also highlighting the dangers that plastic waste poses to marine animals.

A young team from across the region plays an active role in preparing and delivering the events. As a result, and with the help of Ciments du Maroc, around 30 jobs for young people are created every summer.

Safe & Inclusive

Responsible procurement

Suppliers

Suppliers

120,000

suppliers and business partners work with us all around the world.

90%

of our procurement volume is invested locally – either in the areas immediately surrounding our plants or within the respective country.

Our commitment

Our Sustainability Commitments 2030

By **2030**, 80% of our critical supplier spend will be confirmed with a green **ESG rating**.

Heidelberg Materials defines critical suppliers as global suppliers that are crucial for our core business and/or those suppliers that could influence the performance of our supply chains and locations.

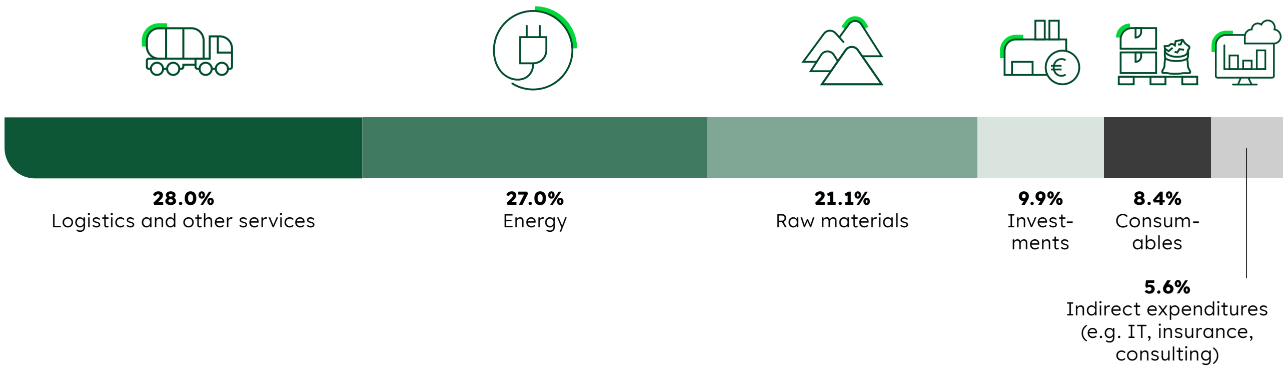
80%

Governance

Our globally applicable **Supplier Code of Conduct** forms the basis for all contractual relationships.

Procurement volume

Procurement management



Responsible procurement: our commitment to a sustainable supply chain

Heidelberg Materials currently has more than 120,000 suppliers and business partners from more than 50 countries. Owing to the complexity of global networks and the predominantly local business relationships (about 90% of all expenditure worldwide[1]), it is extremely important for Heidelberg Materials to ensure that information is exchanged reliably at all levels of their supply chain. Trusting partnerships based on full transparency help us to achieve seamless cooperation and sustainable operational performance.

Responsible sourcing plays a decisive role in meeting our Sustainability Commitments 2030 as well as supporting the UN's Sustainable Development Goals. We are working towards a transparent, sustainable, and forward-looking approach to procuring products and services by going beyond the legal requirements for our business activity. We select and evaluate our suppliers not only on the basis of economic criteria, but also integrate social, ethical, and environmental performance factors into the process. Most importantly, human and labour rights are non-negotiable for us when forming and maintaining a business relationship.

To fully understand and measure our social and ecological footprint across our value chain and improve our sustainability performance, we enforce our Supplier Code of Conduct, which requires suppliers to comply with the principles of the international social accountability standard SA 8000, environmental standard

1) This value is based on an analysis in the countries that use our central SAP system and relates to 50 % of the annual global procurement volume.

First Movers Coalition

Creating demand for sustainable technologies

In May 2022, Heidelberg Materials joined the First Movers Coalition, a public–private partnership between the US State Department, the World Economic Forum, and forward-looking companies from various industries. The First Movers Coalition was founded in 2021 as a platform for companies to leverage their reach and create demand to make new, sustainable technologies available and scalable.

As part of its membership, Heidelberg Materials has committed to the sector ambition for trucking, aiming for 30% of the company's purchases of heavy-duty trucks and 100% of our medium-duty truck purchases to be zero-emission vehicles by 2030. Our purpose as part of the First Movers Coalition is to play a tangible role in accelerating the development of new technologies aimed at achieving climate neutrality. As a building materials producer, Heidelberg Materials has to consider the effects of product transport on its carbon footprint. Our work within the First Movers Coalition is therefore a meaningful extension of our commitment to significantly reduce CO_2 emissions.

30% of the company's purchases of heavy-duty trucks and 100% of our medium-duty truck purchases to be zero-emission vehicles by 2030

ISO 14001, and applicable national and international supply chain laws.

Our contribution: the Responsible Procurement initiative

In addition to our focus on human rights, our vision for a sustainable supply chain also means that we call upon our suppliers to commit to reducing greenhouse gases. Since the end of 2021, we have been proactively communicating this message in various ways, including at meetings with suppliers and through initiatives such as virtual supplier days on the topic of sustainability. These ambitions, which extend beyond the Supplier Code of Conduct, are also published on the Heidelberg Materials website.

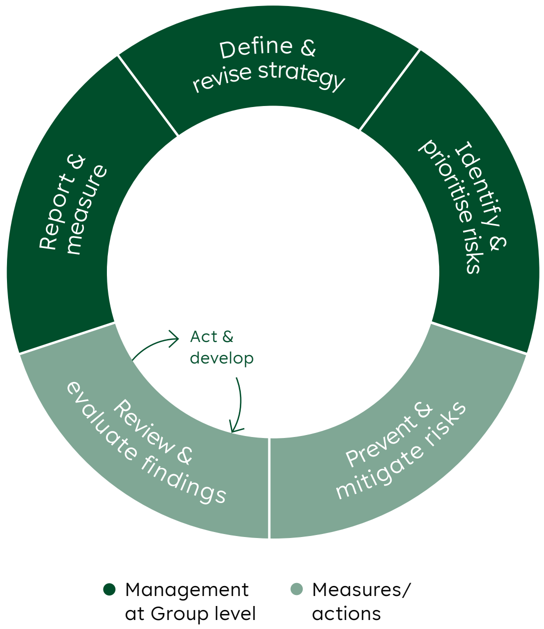
As part of our Responsible Procurement initiative, we have also launched a global risk assessment programme for our supply chain. The aim of this programme is to identify sustainability challenges before they become problems. We work together with proven partners.

IntegrityNext and Avetta are global programme providers with extensive experience in monitoring corporate safety, skills, and social responsibility. They help to review, inform, and support suppliers in complying with the principles of our Supplier Code of Conduct and additional sustainability requirements. This support enables us to reliably assess our suppliers with regard to our sustainable supply chain standards.

We are also implementing numerous other measures in the area of responsible procurement:

- Our SpeakUp compliance hotline can be used by internal and external stakeholders to report any illegal activities or violations of internationally applicable conventions.
- Together with our partners, we are driving innovative CO_2 reduction projects and initiatives (e.g. in cement and clinker production and transport) to address climate change.
- In our cooperation with suppliers, we follow a zero-tolerance policy. This means that we end the contractual relationship if violations are not remedied by appropriate measures.
- We obtain and communicate all legally required data to report on our progress transparently.

Supplier management



Combined management report

Notes on reporting

From the 2022 reporting year onwards, we will use the “Heidelberg Materials” brand in our Group reporting.

This combined management report contains the management reports of the annual financial statements and consolidated financial statements of HeidelbergCement AG. The statements about the Group (hereinafter also referred to as Heidelberg Materials) apply equally to HeidelbergCement AG. Information relating only to the parent company is indicated accordingly. For information on the parent company, please refer to the **Statements on HeidelbergCement AG section**.

In accordance with sections 289b and 315b of the German Commercial Code (Handelsgesetzbuch, HGB), non-financial reporting is integrated into the combined management report and included in the **Non-financial statement chapter**. The disclosures pursuant to Article 8 of the Taxonomy Regulation (EU) 2020/852 are also provided here in compliance with Delegated Regulation (EU) 2021/2178.

In the 2022 financial year, we included the specific net CO_2 emissions per tonne of cementitious material as non-financial key performance indicator as well as the alternative fuel rate and clinker ratio in the audited part of the management report. These key figures were therefore a subject of the statutory audit for the first time. Unless otherwise stated, the calculation of the specific net CO_2 emissions per tonne of cementitious material is based on the definition provided by the Global Cement and Concrete Association (GCCA).

The corporate governance statement in accordance with the provisions of sections 289f and 315d of the German Commercial Code (HGB) is published in the **Corporate Governance chapter** and **online**.

With the mandatory application of the German Act Implementing the Second Shareholder Rights Directive (Gesetz zur Umsetzung der zweiten Aktionärsrechterichtlinie, ARUG II) effective 1 January 2021 and the resulting revision to section 162 of the German Stock Corporation Act (Aktiengesetz, AktG), Heidelberg Materials has decided to publish the remuneration report separately for the 2022 financial year and no longer as part of the management report. We voluntarily had the content of the remuneration report audited by the auditor. The remuneration report and the associated auditor’s report are included in the **Remuneration report chapter** of the Annual Report and are available **online**.

In the 2022 financial year, there were no other relevant changes in reporting. Unless expressly indicated otherwise, all statements and figures refer to the continuing operations of Heidelberg Materials.

An overview of the calculation methods used for financial key figures and a list of technical terms with definitions have been included in the **Glossary** for the Annual Report.

Fundamentals of the Group

Business model

“HeidelbergCement” became “Heidelberg Materials” in September 2022. Our new brand name will be rolled out all around the world and will gradually replace the previous local brands. Heidelberg Materials’ parent company continues to trade under the name HeidelbergCement AG.

We have always been more than just cement, and this is reflected in the new brand name. We have offered a broad range of building materials, applications, and services for many years. Our core activities include the production and distribution of cement, aggregates, ready-mixed concrete, and asphalt. Furthermore, Heidelberg Materials offers services such as worldwide trading especially in cement and clinker by sea.

Heidelberg Materials is one of the world’s largest integrated manufacturers of building materials in terms of sales volumes and operates on five continents. Our products are used for the construction of houses, traffic routes, infrastructure, as well as commercial and industrial facilities, thus meeting the demands of a growing world population for housing, mobility, and economic development. On the journey towards carbon neutrality and the circular economy in the building materials industry, we are working on sustainable and intelligent building materials and solutions for the future. We are opening up new opportunities for our customers through digitalisation.

Heidelberg Materials' business model encompasses the entire value chain, from the extraction of raw materials to further processing into cement through to the end product, concrete and its recycling.

Heidelberg Materials operates as a fully integrated building materials company. Key business processes include the extraction of raw materials, the production of building materials, as well as their sales and distribution to customers. Operating activities are supported by central competence centers for technology as well as by shared service centers in individual countries and regions. Operating business processes include the geological exploration of raw material deposits, the purchase or lease of the land where the deposits are located, applying for mining concessions and environmental impact assessments, the construction of manufacturing facilities in cooperation with external service providers, as well as the actual production of building materials, including extracting raw materials, processing and recycling building materials, and maintenance of the facilities.

Products

Our core products cement, aggregates, ready-mixed concrete, and asphalt are homogeneous bulk goods. Their product characteristics are mostly standardised in order to ensure the required stability, reliability, and processability in the application.

Cements are classified according to their early and final strength as well as their composition. In addition to cements that consist of almost 100% clinker, there are so-called composite cements, in which a portion of the clinker is replaced by alternative raw materials, such as fly ash, ground slag, or limestone. Cement is used as a binder mainly in concrete production.

Aggregates (sand, gravel, and crushed rock) are classified according to their particle size and texture. They are the main component in the production of concrete and asphalt but are also used as base courses in the construction of infrastructure, such as roads.

Concrete is a mixture of aggregates (about 80%), cement (about 12%), and water. Concrete is usually delivered to the construction site by ready-mix trucks and is poured locally into forms. Moreover, concrete is also used for the production of precast concrete parts, such as stairs, ceiling elements, or structural components.

Asphalt is a mixture of aggregates (about 95%) and bitumen and is generally used as a top layer in road construction.

Locations and sales markets

Due to the heavy weight of cement, aggregates, and ready-mixed concrete in proportion to their price, production is usually located in close proximity to the sales markets. The cement transportation radius by road normally does not exceed 200 km. The delivery radius for aggregates, ready-mixed concrete, and asphalt by road is generally less than 100 km. Consequently, we have local production sites in more than 50 countries in which we offer building materials.

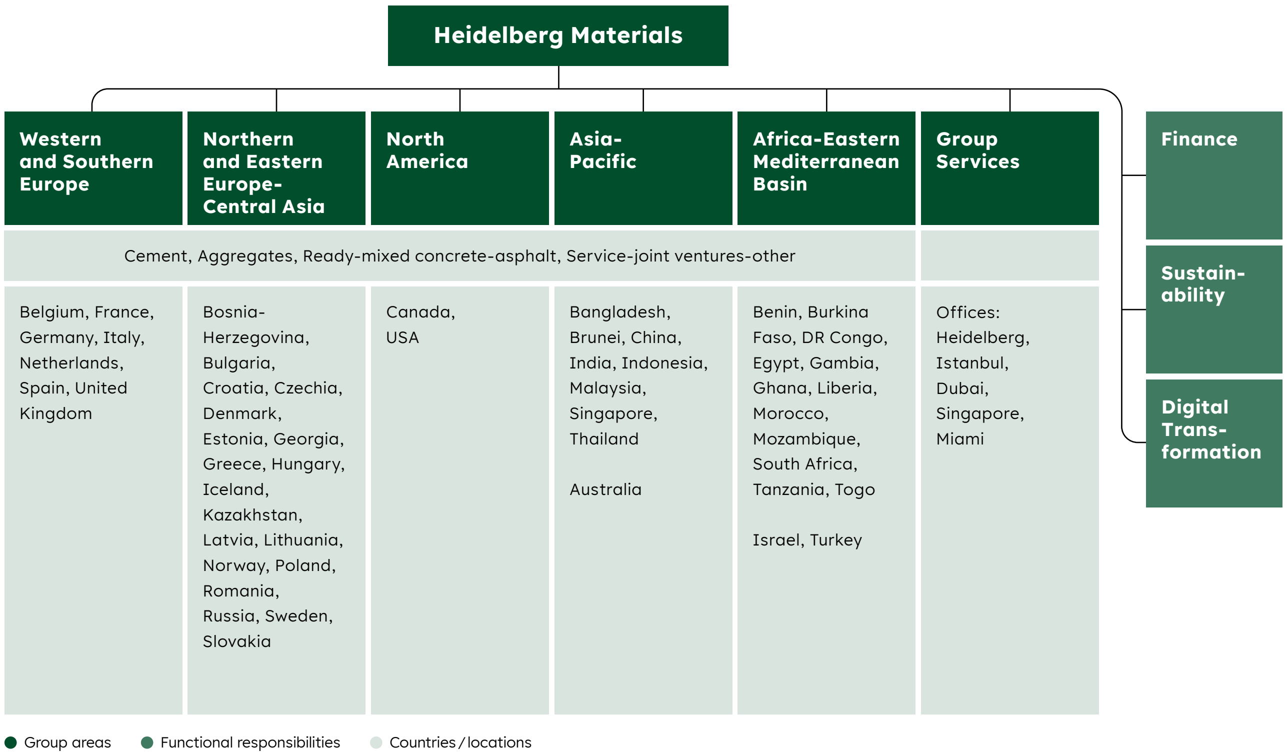
We operate around 130 cement plants (plus a further 20 as part of joint ventures), just under 600 quarries and aggregates pits, as well as around 1,320 ready-mixed concrete production sites worldwide. In total, the Group employs 50,780 people at around 2,500 locations on five continents. There are additionally more than 350 production sites belonging to joint ventures.

Organisational structure

The Group is divided into five geographical Group areas: Western and Southern Europe, Northern and Eastern Europe-Central Asia, North America, Asia-Pacific, and Africa-Eastern Mediterranean Basin. Our global trading activities, especially the trading of cement and clinker, are pooled together in the sixth Group area, Group Services.

Within the geographical Group areas, we have divided our activities into four business lines. The cement and aggregates business lines comprise the essential raw materials that are required for the manufacture of the downstream products ready-mixed concrete and asphalt, which are combined in our third business line. The fourth business line, service-joint ventures-other, primarily covers the activities of our joint ventures.

Organisational structure



Importance of sustainability to the business model

We want to significantly reduce the impact of our business activities on the climate and lower our carbon footprint. As a leading building materials manufacturer, we see it as our responsibility to play a decisive role in transforming our industry to meet current and future needs. We want to make a substantial contribution to sustainable construction and carbon neutrality and assume social and environmental responsibility.

Climate protection is an integral part of the Group strategy. The production of cement generates a large amount of CO_2 due to the chemical processes involved in burning clinker and the high temperatures this requires. Therefore, we are making greater use of alternative raw materials and fuels to reduce CO_2 emissions. We also optimise our production processes to increase energy efficiency. To reduce the consumption of primary raw materials, we are committed to circularity and strengthening the circular economy. At product level, our focus is on the broad introduction of low-carbon cements and concretes, the use of recycled materials, and the application of new technologies such as 3D concrete printing.

Heidelberg Materials is a manufacturing company. The extraction of raw materials and the production of cement and aggregates carry various risks of accident and injury, for example with regard to the transportation of raw materials and finished products, working at great heights, high voltage currents, using heavy technical equipment, or with respect to rotating parts of kilns, mills, or conveyor belts as well as hot temperatures around the cement kilns. With effective preventive measures, we intend to minimise the risk of accidents and injuries as well as the risk of work-related illness. Occupational health and safety is a cornerstone of our corporate culture and work processes.

Heidelberg Materials is committed to responsible corporate governance, which includes respect for human rights, zero tolerance of corruption and antitrust violations, and ensuring diversity, equity, and inclusion.

For further information, refer to the **Non-financial statement chapter**.

External factors of influence

In addition to weather conditions and economic and population growth, the most significant external factors influencing the economic development of Heidelberg Materials are developments in prices on the energy and raw materials markets, the regulatory environment, and competition in the markets in which we operate.

Strategy

Material to build our future

With its building materials and solutions, Heidelberg Materials has been contributing to global progress for 150 years. The purpose adopted in 2020, “Material to build our future”, underscores our intention to develop and produce innovative (building) materials for the future and to play a material role going forward.

Four culture principles form the basis for our activity:

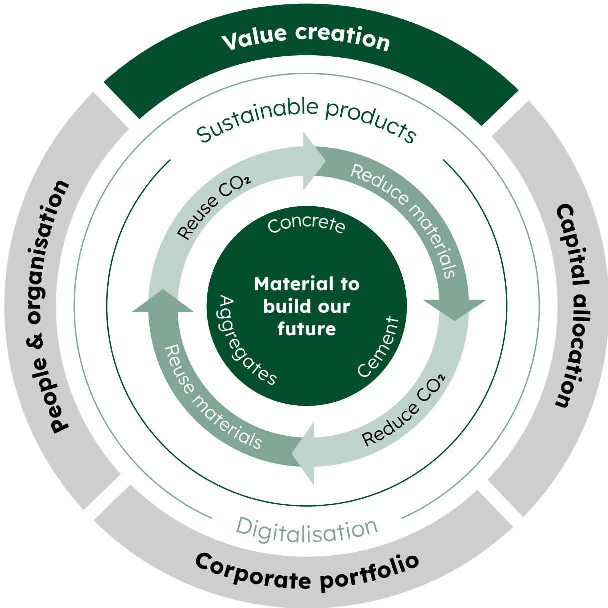
- Be stronger together!
- Get the customer excited!
- Unleash innovation!
- Think and act long term!

The purpose and four culture principles are integral to our Group strategy.

The top priority of our strategy and all our entrepreneurial activity is to sustainably increase the enterprise value while limiting the impact of our business activities on the environment and society.

Strategic framework

Strategy framework



Concrete, cement, and aggregates form the core of our business activities. In a market with heavily standardised products, customer focus and service quality are crucial in order to successfully market our products and solutions. By further developing our product and customer portfolio, we are striving for growth in line with our climate protection targets. In particular, we rely on the market knowledge and entrepreneurial spirit of our local management.

Growth and transformation
Taking our clearly defined core business as a starting point, we aim to generate further growth. Our strategy is based on two key elements that we anticipate will complement and transform our existing core business and should lead to sustainable growth: sustainability and digitalisation.

Sustainability
We see closing the loop in terms of carbon emissions and material streams as an opportunity to establish new products and solutions on the market and open up new areas of business. Our target is to generate 50% of our revenue through sustainable products and solutions (including carbon-reduced and circular) by 2030 and to achieve net zero emissions[1]) by 2050 at the latest.

By using proven techniques and measures, such as maximising the use of alternative fuels, optimising the product mix, and improving the efficiency of our plants, we want to achieve a continuous reduction in our CO_2 emissions and become an industry-wide front runner in decarbonisation, combined with cost leadership. To achieve this, however, the existing techniques and measures alone are not sufficient. We are therefore intensively researching and testing new technologies aimed at avoiding the emission of CO_2 and closing the carbon loop. A particular focus of this work is on carbon capture, utilisation, and storage (CCUS) (see **Research and development section**).

In addition, we not only continuously review and optimise the use of resources in the manufacture of our products, but also work on finding ways to use them beyond their previous useful lives in keeping with circular economy principles. In pursuing this target, we aim to conserve primary resources and make greater use

1) According to SBTi definition.

of secondary resources, namely demolition concrete, as recycled materials. Heidelberg Materials is already active in the recycling business in several countries and is working on the targeted processing of recycled concrete components, as well as their recarbonation and reuse in building materials.

The combination of our ambitious climate protection targets with the growing importance of resource efficiency and the circular economy is not only creating new opportunities for sustainable products and solutions, including differentiation through optimised pricing and margins, but also giving rise to new business models that will generate additional sustainable growth.

Digitalisation
Digitalisation – including digital products and applications – plays a crucial role throughout our entire value chain, from raw materials mining, production, and logistics to the interface with our customers. Heidelberg Materials has set itself the target of becoming the leading tech company in the building materials sector.

We aim to use digital solutions to contribute to company growth and increase efficiency in production and administration. Our digital transformation strategy is centered on the three digital pillars HConnect, HProduce, and HService. While we aim to use the HConnect digital product suite to cover more than 75% of our global sales volume via digital interfaces to customers by 2025, the primary focus of the applications within the HProduce and HService digital product suite is on improving efficiency and reducing costs in production and within back-office processes.

By acquiring shares in Command Alkon, a globally active provider of comprehensive supply chain technology solutions for building materials, and in the concrete technology company Giatec Scientific, active in sensor technology and AI-controlled software, we want to drive forward the digital transformation of Heidelberg Materials and the building materials industry as a whole. As an anchor investor in digital and technology companies and a provider of digital products, we also intend to participate in future growth and value creation.

The implementation of our strategy and the achievement of our targets are supported by measures in the areas of people and organisation, corporate portfolio, and capital allocation.

People and organisation
Heidelberg Materials pursues an integrated management approach, the success of which is based on a balance between local operational responsibility, Group-wide standards, and global leadership.

The achievement of essential corporate targets is enshrined in individual target agreements at all management levels and is reviewed regularly. At Managing Board level, global business functions are allocated clearly to the individual members. Separate Managing Board responsibilities have been established for the strategic transformation topics of sustainability and digitalisation since 2021. At country and Group level, the merging of global and regional functions is expected to contribute to a simplified and more efficient organisational structure in the coming years.

An area of particular importance to us as a manufacturing company is occupational safety and the protection of our employees' health. We see the international composition of our workforce as a decisive factor for the global success of Heidelberg Materials. The aim is to create a high-performance and sustainable organisation throughout the Group.

Corporate portfolio
We see our diversified country portfolio, consisting of developed and growth markets, as a strength. Through active portfolio management, we aim to further simplify our country portfolio and prioritise the strongest market positions. We have defined financial and non-financial criteria according to which all our markets are assessed. This includes divestments of markets that do not meet these criteria in the medium term. We will expand our activities in countries that meet these criteria. Selective acquisitions in existing markets must meet high result and return expectations as well as sustainability criteria. We will continue our vertical integration along the entire value chain in the countries in which we are achieving strong synergy effects and are able to strengthen and expand our market positions. In addition, we will maintain and continuously expand our portfolio investments in the transformative areas of sustainability and digitalisation.

Capital allocation
Our entrepreneurial activity is accompanied by a consistent allocation of capital. With net investments of €1.1 billion per year, including €100 to €150 million in CCUS, we have reached the required level of investment to operate our production sites efficiently and to meet market requirements.

We make investments with a focus on improving our margins and meeting our sustainability targets. Investments with a focus on sustainability or digital are gaining in importance. We are continually developing our corporate portfolio, with divestments helping to finance complementary acquisitions.

Thanks to a progressive dividend policy, our shareholders benefit from our corporate success. We also create sustainable value for our shareholders by reducing net debt. The share buyback programme, which started in 2021, underscores Heidelberg Materials' intensified focus on shareholder return.

Value creation
To measure our business success and create sustainable value, we have defined key performance indicators relevant for management. These include the result from current operations (RCO), the return on invested capital (ROIC), and the specific net CO_2 emissions. We also use revenue development, the RCOBD margin, and the leverage ratio as supporting information. With respect to the transformation topics of sustainability and digitalisation, we analyse data including revenue from sustainable products (see **Sustainable products and solutions section**) and the proportion of revenue that could be generated via digital interfaces by means of our HConnect product suite. More information on the key performance indicators and targets relevant for management to be found in the **chapter Management system and indicators**.

Management system and indicators

Components and functionality of the management system

We employ a value-oriented management system in order to evaluate and meet our strategic targets.

The management system at Heidelberg Materials is based primarily on annual operational planning, management and control during the year, quarterly management meetings, central coordination of the investment process, as well as regular Managing Board meetings and reporting to the Supervisory Board.

In the context of annual planning, the Managing Board first defines a top-down budget on the basis of macroeconomic analyses, its assessment of market conditions, and cost targets. From this, specific figures are derived for all targets of the individual operating units, which are used as the basis of detailed planning for the individual operating units down to plant level and to agree targets with local management. The operational subplans created by the operating units are then consolidated centrally to create the Group-wide plan.

The management and control of the company during the year are carried out using a comprehensive system of standardised reports on the Group's assets, financial, and earnings position. The indicators used for this purpose are determined and presented uniformly throughout the Group. A report on the cash in- and outflow is prepared weekly, for example. Reports on results of operations, production, and technology are prepared monthly.

The internal quarterly reporting includes a detailed cash flow report in order to monitor cash flows. Adjusted free cash flow is one of the target figures for the country management. It is defined as the sum of free cash flow and all investments and divestments. Intra-Group payments are offset in the calculation.

Reports on the financial situation and detailed tax reporting are also submitted at the end of each quarter. At the quarterly management meetings, the Managing Board and country and region managers discuss business developments, including target achievement, the outlook for the relevant year, and any measures that need to be taken. These are based, among others, on the quarterly forecasts of the country organisations.

The Group departments Strategy & Development/M&A, Finance, and Environmental Social Governance (ESG) and the technical competence centers follow a formalised process to review and assess all major investments and acquisitions. Investments in expansion are assessed from a business perspective using a discounted cash flow (DCF) model. The target is for the investment projects to achieve a return on invested capital (ROIC) of at least 8% in the first full operational year. This long-term approach to investment returns is supported by simulated calculations that show the impact of an investment on the consolidated income statement, statement of cash flows, balance sheet, and tax position over a period of five years.

With our permanent investment grade credit rating, we aim to ensure that a high level of financial stability is maintained. The valuation of the Group's financial strength is based on the leverage ratio, i.e. the ratio of net debt to result from current operations before depreciation and amortisation. In the medium term, we have set the target range for the leverage ratio at 1.5x to 2.0x.

The focus is on a consistent allocation of capital, allowing investments only if neither the achievement of the target leverage ratio nor the dividend payments are jeopardised.

Management indicators

Key financial and non-financial performance indicators

Indicator	Target	Term	Value 2022
RCO	Between €2.35 billion and €2.65 billion	2023	€2,476 million
ROIC	Above 10%	2025	9,1%
Specific net CO_2 emissions (kg CO_2/t cementitious material)	400 kg CO_2/t cementitious material	2030	551 kg CO_2/t cementitious materia

The key financial performance indicators for Heidelberg Materials include the result from current operations (RCO) and return on invested capital (ROIC). The Managing Board uses these ratios to derive future strategy and investment decisions.

As an important short-term indicator of the company's earnings strength and success, the RCO is determined, analysed, and forecast in detail for all operating units. It is therefore particularly suitable for assessing the company's economic development over time. For this management indicator, we set an annual target value calculated on the basis of the prevailing economic conditions and the Group's financial situation.

Capital efficiency and thus internal value creation is expressed by ROIC. It is defined as the ratio of the result from current operations less the adjusted current tax expense to the average invested capital (average of the opening and closing balance sheets of the financial year). The adjusted current tax expense is calculated by applying an adjusted effective tax rate to the result of current operations. The medium-term objective is to achieve a ROIC above 10% (previous target: clearly above 8%). ROIC is also taken into account as a variable remuneration element in the long-term bonus of the Managing Board and top management. More information on the calculation of ROIC to be found in the **Capital efficiency section**. The financial and assets positions of the operating units are monitored in the short term primarily via the amount of working capital and investments.

The strategic target of reducing our ecological footprint across the Group is at the forefront of all operational processes. The company raised its climate targets in the 2022 financial year. By 2030, we want to lower the carbon footprint of our cement products by 47% compared with 1990, to a target value of less than 400 kg CO_2 per tonne of cementitious material. This is the most ambitious reduction target in the industry. For the calculation of net CO_2 emissions, both process-related and fuel-dependent emissions are taken into account. In accordance with the GCCA guidelines, all alternative fuels are considered CO_2-neutral.

Leading indicators

Heidelberg Materials' core business is in standardised mass products that are generally ordered at short notice. Suppliers of such products are usually interchangeable from a customer standpoint. Moreover, the volume of construction activity – and thus sales volumes of building materials – are dependent on local weather conditions in the respective markets. Given this constellation, no reliable leading indicators are definable for business forecasting. However, some selected statistical data and industry association forecasts can be utilised to gauge the approximate business outlook at country level. In mature markets, for instance, figures on building permits or infrastructure budgets serve as important sources of information. In the growth markets of emerging countries, data on population growth and GDP growth forecasts are frequently used indicators.

Research and development

The aim of research and development (R&D) at Heidelberg Materials is to develop innovative products, new product formulations, and process improvements in order to lower energy consumption, conserve resources, strengthen the circular economy, and thereby reduce both CO_2 emissions and costs.

Research and development activities at Heidelberg Materials can essentially be divided into the following areas of focus:

- Development of advanced automation solutions: With the help of artificial intelligence, we are looking for solutions to reduce energy consumption, keep our equipment in perfect condition, and maintain consistent product quality.
- Development of cements and concretes with improved carbon footprints: We are developing composite cements and concretes with less clinker and cement. Reducing the proportion of clinker in cement is the most important lever when it comes to minimising energy consumption and CO_2 emissions during production and helps to preserve natural raw materials.
- Circular economy for concrete: We are working on innovative recycling technologies that allow waste concrete to be fully reused in fresh concrete. We are also researching processes to incorporate CO_2 in our products by carbonating recycled hardened cement paste so that building materials can be used to store CO_2.
- Development of new technologies for CO_2 reduction: We are developing projects for carbon capture, utilisation, and storage (CCUS), which are essential tools to help our sector achieve net zero. We are also rais-

ing the proportion of biomass fuels, exploring the use of hydrogen, and increasing the electrification of our processes.

- Innovative concrete systems: The main priority is the development and improvement of binders and concretes with optimised properties and innovative functionalities. In 2022, we focused on further developing 3D concrete printing technology.

Organisation of our R&D activities

Our global competence centers Competence Center Cement (CCC), Competence Center Aggregates and Asphalt (CCA), Competence Center Readymix (CCR), as well as the Global Research & Development (GRD) and Technologies & Partnerships (TP) teams, which come under the Sustainability Office, pool the knowledge in our Group and make it available to all operating units.

The CCC assists our cement plants by providing specialist knowledge on all technical matters, from securing raw materials and improving production and maintenance to process control and quality assurance. The CCC also coordinates all strategic projects from the feasibility study to commissioning at the targeted level of performance.

The CCC supports Heidelberg Materials' digitalisation efforts by continuously increasing the number of remote-controlled facilities and the use of expert systems across the Group. Expert systems are computer programmes that use rules to mimic human decision-making. Milestones in 2022 included the commissioning of our first transnational remote system, which controls a cement plant in Bangladesh from Brunei, and the deployment of our internally developed expert system for cement kilns in our cement plant in Górazdze, Poland, where it is already used in more than 90% of cases. By working with our plant teams, we now have more than 220 expert systems in place – almost twice as many as two years ago. As a result, mills and kilns can operate largely without human intervention, increasing material throughput and making energy savings of between 3% and 5%.

Similarly, the CCA supports the aggregates and asphalt business lines across the Group with programmes for continuous improvement and performance management. Its tasks also include the planning and implementation of projects as well as digitalisation and automation. Furthermore, the CCA offers training and advanced training to provide employees with additional skills.

The CCR, a comparable organisation for the ready-mixed concrete business line, focuses on the continuous optimisation of raw materials and logistics costs and on maximising revenue by offering our customers innovative solutions.

R&D expenses

Total expenditure on R&D amounted to €123.4 million (previous year: 123.6) in the reporting year, corresponding to 0.6% of Group revenue. The following table shows a breakdown of expenses for the last three years for each field of activities.

Expenses for research and development

€m	2020	2021	2022
Central R&D and innovation[1]	13.4	12.8	12.5
Technology and innovation	52.3	50.7	52.3
Customer-related development and technical service	54.3	60.1	58.6
Total	**120.0**	**123.6**	**123.4**

1) Including capitalised expenses

Mainly expenses for the development of basic technologies are shown under Central R&D and innovation. Expenses for process innovations are contained within Technology and innovation, while the expenses for the local optimisation of products and applications according to the wishes of our customers are included in Customer-related development and technical service.

The development projects that were capitalised as investments include, among others, low-carbon concretes, new composite cements, and innovative concrete applications. In 2022, capitalised development costs totalled €1.6 million (previous year: 0.8), which corresponds to around 1.3% of total expenditure on research and development.

Employees in research and technology

In the 2022 financial year, based on full-time equivalents a total of 987 people (previous year: 1,024) were employed in R&D. The personnel breakdown and development over the last three years is shown in the following table.

Employees in research and development

Full-time equivalents	2020	2021	**2022**
Central R&D and innovation	91	75	77
Technology and innovation	309	298	295
Customer-related development and technical service	631	651	615
Total	**1,031**	**1,024**	**987**

Research cooperation

Cooperation with institutes and universities at both a local and global level complements our own R&D and innovation activities. At a global level, we refer in particular to our participation in the research network INNOVANDI. The network includes cement and admixture companies as well as around 40 leading international universities, which all work together to carry out fundamental research.

In terms of product development, we prefer bilateral cooperation with individual universities in order to complement our own expertise. In some cases, cooperative projects with universities are supported by public funding.

Important activities on digitalisation, preservation of resources, recycling, and carbon capture

Use of digital solutions
Heidelberg Materials is committed to increasing efficiency in and reducing the ecological footprint of its cement plants through a strategic digital initiative – the HProduce integrated digital product suite. In particular, work is being carried out to predict important quality parameters for production, such as cement strength or the lime content in the clinker. The intention is to help the on-site workforce to ensure stable and optimal production and thus reduce the ecological footprint. Another example is a product introduced in more than 50 plants to support production planning and maximise operating activities at times when electricity costs are lower, also determined by the availability of renewable energies (e.g. wind and solar).

Use of alternative energies
To reduce Heidelberg Materials' carbon footprint and increase the use of alternative fuels, we initiated the Alternative Fuel Master Plan in 2018. The alternative fuel rate – the proportion of alternative fuels – was around 29% in the financial year 2022. Information on the progress in the use of alternative fuels in the reporting year is available in the **Non-financial statement chapter**.

Use of alternative raw materials
One of the most important ways of reducing CO_2 emissions in cement manufacturing is to use alternative raw materials that are produced as by-products or waste in other industries. A very large share of these alternative raw materials comes from the metal processing industry. Moreover, coal-fired power plants supply ash as well as synthetic gypsum. By using these materials and thus avoiding waste, we actively promote the circular economy. The systematic assessment of the suitability of all materials used ensures the best and most consistent product characteristics.

Cements with lower proportions of clinker
We have made further progress in the development of cements containing less clinker, thereby reducing CO_2 emissions. In several countries, the proportion of blast furnace slag, fly ash, and limestone in cement has been increased, thus reducing the clinker content. We are also evaluating the use of alternative cement components, such as natural pozzolans or calcined clays, for various locations. Clinker ratio – the proportion of clinker in cement – was around 72% in the financial year 2022.

In the EU-funded MatCHMaker project, we are optimising the use of multi-component cements in concrete, including alternative components like calcined clay and recycled hardened cement paste. Methods such as machine learning and micromechanical modelling generate the necessary information about the mechanical properties and durability of the concretes, resulting in their targeted optimisation.

Incorporation of CO_2 into concrete
Concrete binds CO_2 from the air throughout its entire service life. As a result of this natural carbonation, some of the CO_2 emitted in the production of the basic material cement is already reabsorbed over the whole product life cycle of concrete. Accelerating this natural process is the focus of the C^2inCO_2 research project in collaboration with industry partners and universities, which is funded by the German Federal Ministry of Education and Research.

In the reporting year, Heidelberg Materials won the German Innovation Award for Climate and Environment (IKU) in the "Process Innovations for Climate Protection" category for the ReConcrete-360° process concept. In ReConcrete-360°, waste concrete is crushed using novel processes and sorted almost homogeneously into its components: sand, gravel, and hardened cement paste. Hardened cement paste can be reused as a low-carbon raw material in clinker and cement production, replacing natural limestone as a raw material. In addition, it can absorb and permanently bind CO_2, thus acting as a carbon sink.

The objective of the EU-funded Carbon4Minerals project is to use CO_2 from industrial flue gases to reprocess existing and future waste materials, which offers considerable potential to produce innovative, low-carbon binders and building materials. A total of eight industrial pilot installations are being built and operated along the entire value chain from carbon capture to the production of low-carbon cements and building materials. This cross-sectoral innovation could reduce European carbon emissions by 46 million tonnes per year, equivalent to 10% of the emissions of the process industry in the EU.

Carbon capture, utilisation, and storage

The world's first industrial-scale carbon capture plant has been under construction at the Brevik cement plant in Norway since 2021. This facility will use amine technologies to capture 400,000 tonnes or 50% of the plant's emissions annually from 2024. The aim of the project is to demonstrate that carbon capture, utilisation, and storage (CCUS) is a viable, safe, and cost-effective technology.

On the basis of the know-how developed in Brevik, several feasibility studies are currently being conducted for CCUS projects in further cement plants. In particular, the feasibility studies have reached an advanced stage at the cement plants in Padeswood, United Kingdom, and Slite, Sweden. It is anticipated that amine technology can be used there to capture and store up to 100% of the plants' carbon emissions.

At our cement plant in Edmonton, Canada, we are developing North America's first large-scale carbon capture, utilisation, and storage facility for the cement industry. A memorandum of understanding has been signed with Enbridge Inc. for the captured CO_2, which will be transported via a pipeline and permanently stored. A detailed FEED study will be carried out before the final investment decision is made. Subject to the granting of carbon sequestration rights and regulatory approvals, the project could go into operation as early as 2026.

In 2022, the newly launched ANRAV CCUS project was selected for funding within the framework of the EU Innovation Fund. ANRAV will be the first project in Eastern Europe to span the entire CCUS value chain and connect carbon capture facilities at the cement plant near Varna, Bulgaria, with offshore storage sites in the Black Sea via a pipeline system.

Another major CCUS project at the cement plant in Mitchell, Indiana, will capture 95% of the CO_2 emissions from the modernised production facility and store them in a nearby onshore reservoir in the Illinois Basin. As part of the first step, the US Department of Energy approved funding for the feasibility study in 2022.

In 2022, progress was also made on the LEILAC 2 (Low Emissions Intensity Lime And Cement) carbon capture project. Heidelberg Materials will work together with Australian technology company Calix and a European consortium to build a demonstration plant that will be integrated into the cement plant in Hanover, Germany. The first phase of the LEILAC 1 project was completed in Lixhe, Belgium. The aim of the project was to develop a technology that would completely transform the calcination section of the cement plant. All targets set by the LEILAC 1 consortium and the EU have been met.

Another method of carbon capture uses oxyfuel technology. Together with three other European cement manufacturers, Heidelberg Materials has conducted a detailed study into the construction of an oxyfuel pilot kiln line to test the new process and prepare for the construction of an industrial-scale installation using the knowledge gained. The study was successfully completed in December 2021 and, based on its findings, the decision was made to build the pilot plant. The contract with the supplier was signed in May 2022. The pilot plant is expected to go into operation in 2024.

Heidelberg Materials continues to work on optimising the technology to convert CO_2 into microalgae for the manufacture of a high-quality ingredient for fish food and other animal feed. In cooperation with Omega Green, we are producing 25 tonnes of dried microalgae annually on a 0.5 ha area at our Moroccan cement plant in Safi. In 2022, we commissioned a spray dryer that produces dry algae. Depending on demand, we aim to gradually expand capacity.

Hydrogen technology
In a kiln at our Ribblesdale cement plant in the United Kingdom, hydrogen technology with a completely climate-neutral fuel mix was used successfully for the first time worldwide in 2021. In the trials, the regular fuels were entirely replaced by a carbon-neutral mix of hydrogen and biomass. This demonstrated that the necessary product quality and heat requirements could be met without compromise. The findings will be made available to cement manufacturers and other energy-intensive industries in order to develop the technology further.

Innovative concretes
Digitalisation and automation in the construction industry also support the development of new building technologies, such as 3D printing with concrete. Our i.tech® 3D building material solution, specially developed for 3D printing, was used in pilot applications already in 2020. By using low-carbon constituents (cement replacement materials) in i.tech® 3D, the amount of Portland cement can be reduced by up to 70%, achieving correspondingly large CO_2 savings. In addition, it has been demonstrated that, through optimised design and targeted material application, the 3D printing construction process can reduce material consumption by up to 75%, thus further reducing carbon emissions.

2022 economic report

Evaluation of the economic situation by Group management

Higher energy and raw material prices had a significant impact on construction activity and therefore on demand for our building materials. The negative market dynamics in many of Heidelberg Materials' key markets led to significantly weaker development of sales volumes in all business lines during the reporting year compared with the previous year.

However, price adjustments in all Group areas more than compensated for this decline in volumes and led to significant revenue growth of 12.7%. Despite good price momentum and strict cost management, we could not fully offset the sharp increase in energy and raw material costs compared to the previous year. The result from current operations (RCO) decreased by 5.3%.

The profit for the financial year attributable to the shareholders of HeidelbergCement AG amounts to €1,597 million (previous year: 1,759).

ROIC remains nearly stable with 9.1% in the reporting year. Leverage ratio was at 1.48x and thus again slightly below our long-term target corridor of 1.5x–2.0x.

In July 2021, Heidelberg Materials launched a share buyback programme with a total volume of up to €1 billion. The second tranche of the programme, amounting to €350 million, was completed on 13 July 2022.

The Managing Board considers Heidelberg Materials' operational and financial development in the 2022 business year to be good.

Economic environment

General economic conditions

In the course of 2022, the global economy weakened significantly compared to 2021. In many countries, energy prices rose considerably compared to the previous year as a result of geopolitical tensions. The Russia-Ukraine war and intense heatwaves and droughts in Europe and Central and South Asia drove up food prices worldwide and led to supply bottlenecks. According to ifo Institute's economic forecast 2022, consumer price inflation rose to an extremely high level in many countries, leading to a rapid tightening of monetary policy. Although the impact of the coronavirus pandemic has weakened in most countries, its persistent waves continued to affect economic activity, especially in China. The economic downturn was felt in both industrial and emerging countries.

In Europe, economic development slowed under the influence of high inflation and rising interest rates from the third quarter onwards, having expanded in the first half of the year. In its January 2023 forecast for the eurozone, the International Monetary Fund (IMF) anticipates a 3.5% increase in GDP in 2022. Spain, Italy, and France in particular are expected to have developed positively. The German economy is likely to have grown by 1.9% in 2022 despite inflation, the energy crisis, the Russia-Ukraine war, and ongoing supply chain problems. In the United Kingdom, the IMF anticipates a GDP increase of 4.1%.

In the USA, despite high inflation and rising interest rates, the economy recorded slight growth in 2022, boosted by private consumer spending and foreign trade. According to the IMF, the US economy is expected to have grown by 2.0% overall in 2022. For Canada, the IMF anticipates growth of 3.5%.

India (expected growth of 6.8%) and the emerging markets of Africa (expected growth of 3.8%) are thought to have developed more weakly than in the previous year, also due to the development in China (expected increase of 3.0%), which was impaired by the coronavirus pandemic. Together with population growth and gross domestic product per capita, economic growth is one of the most important indicators for measuring the development of construction activity in emerging countries.

The average value of the euro declined in 2022, in particular against the US dollar, the Australian dollar, the Canadian dollar, the British pound, and the Indonesian rupiah. Meanwhile, the value of the euro rose against the Moroccan dirham and the Polish zloty.

The increase in the cost of primary energy sources (e.g. coal, natural gas) led to an increase in the cost of secondary energy sources (e.g. electricity) in many countries.

Industry-specific conditions

Besides the country-specific investment climate for residential, commercial, and infrastructure construction, industry-specific conditions also include local weather conditions, developments in the competitive situation, and the regulatory environment. As the production and marketing of building materials is localised and only represents a small percentage of global trade, we focus on the regions and countries that are relevant to us instead of considering a global view. Details of the development in the individual countries can be found in the **Business trend in the Group areas section**.

In the EU Emissions Trading System (EU ETS), companies are allocated a proportion of their emission certificates at no cost, according to industry-specific benchmarks, as long as they are affected by the risk of production being shifted abroad (carbon leakage). Every company is required to submit sufficient emission certificates to cover its total emissions for the preceding financial year by a compliance deadline in April. In the EU ETS, if a company does not have enough emission certificates by the compliance deadline for production reasons, it must purchase additional certificates – or face heavy penalties. All of Heidelberg Materials' cement production facilities in Europe fall within the EU ETS.

The agreed revision to the EU climate protection programme in December 2022 confirmed the tightened allocation of CO_2 emission rights in the fourth trading period from 2021 to 2030. Prices for emission rights developed dynamically during the reporting year and were around €90 at times. Heidelberg Materials held sufficient emission rights in 2022 and will continue to reserve surplus emission rights for future use within the fourth trading period rather than selling them.

Development of sales volumes

In 2022, increased energy and raw material prices significantly impaired construction activity and thus demand for our building materials. The negative market dynamics in many of Heidelberg Materials' key markets led to a significantly weaker development of sales volumes in the reporting year than in the previous year. In all business lines, sales volumes decreased in comparison with the previous year and developed differently in the individual Group areas. The economy in Europe in particular suffered from the effects of the Russia-Ukraine war.

Consolidation effects resulted from divestments as part of the optimisation of our portfolio. The disposal of our business activities in the West region of the USA in October 2021 had the strongest effect.

Cement and clinker sales volumes decreased by 6.1% to 118.8 million tonnes in 2022 (previous year: 126.5). All Group areas recorded declines in sales volumes. Due to scope impacts, the sharpest reductions were in North America, followed by Western and Southern Europe as well as Northern and Eastern Europe-Central Asia. Excluding changes to the scope of consolidation, cement and clinker sales volumes in 2022 decreased by 4.4% compared with the previous year.

At 293.7 million tonnes (previous year: 306.4), sales of aggregates were 4.1% below the previous year's level. On a like-for-like basis – i.e. excluding changes to the scope of consolidation – sales volumes declined by 0.9%, with the Asia-Pacific Group area recording a rise compared with the previous year. This increase resulted from a recovery in demand following the curfews imposed in connection with the coronavirus pandemic in 2021.

Sales volumes of ready-mixed concrete fell by 5.0% to 45.0 million cubic metres (previous year: 47.4). Excluding scope impacts, the decrease amounted to 2.1%. While deliveries in the Asia-Pacific Group area increased, sales volumes in the other Group areas were below the previous year's figure.

As a result of scope impacts, asphalt deliveries decreased by 21.2% in the reporting year to 8.2 million tonnes (previous year: 10.4). On a like-for-like basis, they were 1.6% below the previous year's level. Sales volumes in the Asia-Pacific and Africa-Eastern Mediterranean Basin were close to the previous year's level, while sales volumes in the other Group areas declined.

For a detailed description of the regional development of sales volumes, we refer to the **Business trend in the Group areas section**.

Sales volumes

	2021	**2022**	Change	On a like-for-like basis [1]
Cement and clinker (million tonnes)	126.5	118.8	-6.1%	-4.4%
Aggregates (million tonnes)	306.4	293.7	-4.1%	-0.9%
Ready-mixed concrete (million cubic metres)	47.4	45.0	-5.0%	-2.1%
Asphalt (million tonnes)	10.4	8.2	-21.2%	-1.6%

1) Excluding scope effects

Earnings position

Group revenue increased significantly by 12.7% in comparison with the previous year to €21,095 million (previous year: 18,720). Excluding scope and exchange rate effects, the increase amounted to 11.9%. In particular, price increases in all Group areas contributed to the revenue growth. Changes to the scope of consolidation had a negative impact of €614 million, while exchange rate effects had a positive impact of €680 million on revenue.

In the reporting year, material costs rose sharply, by 22.7% to €8,961 million (previous year: 7,305). This increase is mainly due to the significant rise in energy and raw material prices. Excluding scope and exchange rate effects, material costs went up by 23.3%. The material cost ratio increased to 42.5% (previous year: 39.0). Other operating expenses were 18.0% above the previous year's level at €6,360 million (previous year: 5,392). Excluding exchange rate and scope effects, the increase amounted to 16.0%, which was mainly attributable to higher freight costs. Other operating income increased by 21.0% to €624 million (previous year: 518). Excluding exchange rate and scope effects, the increase amounted to 15,0%. Due to salary increases, personnel costs rose by 3.5% to €3,217 million (previous year: 3,108). At €262 million (previous year: 356), the result from equity accounted investments (REI) was 26.5% below the previous year's level. This is due in particular to the decline in earnings in China and Hungary.

The result from current operations before depreciation and amortisation (RCOBD) fell slightly by 3.5% to €3,739 million (previous year: 3,875). Excluding scope and exchange rate effects, the RCOBD was 5.1% below the previous year's level. The decline in result was attributable to the significantly higher prices of energy and raw materials compared with the previous year, which could only be partially offset despite increases in our sales prices. The RCOBD margin was 17.7% (previous year: 20.7). The result from current operations (RCO) decreased in all segments overall by 5.3% to €2,476 million (previous year: 2,614). Changes to the scope of consolidation of €80 million had a negative impact on the result from current operations and exchange rate effects of €108 million had a positive impact. On a like-for-like basis, the RCO was 6.1% below the previous year's level.

The additional ordinary result amounted to €-193 million (previous year: 481) and was especially impacted by impairments on non-current assets of €-166 million. In the previous year, the result was mainly influenced by the profit from the sale of our business activities in the West region of the USA amounting to €482 million. Earnings before interest and taxes (EBIT) decreased accordingly by €813 million to €2,282 million (previous year: 3,095).

The financial result improved significantly to €-65 million (previous year: -201). Interest expenses decreased by €70 million to €-151 million (previous year: -221) due to more favourable financing conditions. The other financial result improved by €189 million to €140 million (previous year: -48), mainly due to higher discount rates for discounting provisions. The exchange rate result dropped by €108 million to €-99 million (previous year: 10). The decline is primarily due to the devaluation of currencies in Egypt and Ghana. Profit before tax from continuing operations fell by €677 million to €2,217 million (previous year: 2,894).

At €485 million (previous year: 947), expenses for income taxes were €462 million above the previous year's level. In the previous year, the current and deferred tax expense was impacted in the amount of €283 million by the disposal of our business activities in the West region of the USA.

Net loss from discontinued operations amounted to €-9 million (previous year: -46) and was attributable to business lines of the Hanson Group that were discontinued in prior years.

Overall, the profit for the financial year was €1,723 million (previous year: 1,902). The profit relating to non-controlling interests amounted to €126 million (previous year: 143). The profit for the financial year attributable to HeidelbergCement AG shareholders fell by €162 million to €1,597 million (previous year: 1,759). Earnings per share attributable to HeidelbergCement AG shareholders reduced by €0.47 to €8.45 (previous year: 8.91). Excluding the additional ordinary result and non-recurring tax effects in the previous year, adjusted profit for the financial year rose significantly by +14.7% to €1,790 million (previous year: 1,561). Adjusted earnings per share increased accordingly by €1.56 to €9.47 (previous year: 7.91).

The Managing Board and Supervisory Board will propose to the annual general meeting the distribution of a dividend of €2.60 (previous year: 2.40) per share.

Consolidated income statement (short form)

€m	2021	2022	Change
Revenue	**18,720**	**21,095**	**13%**
Result from current operations before depreciation and amortisation (RCOBD)	**3,875**	**3,739**	**-3%**
Depreciation and amortisation	-1,261	-1,264	0%
Result from current operations	**2,614**	**2,476**	**-5%**
Additional ordinary result	481	-193	
Earnings before interest and taxes (EBIT)	**3,095**	**2,282**	**-26%**
Financial result	-201	-65	
Profit before tax from continuing operations	**2,894**	**2,217**	**-23%**
Income taxes	-947	-485	
Net income from continuing operations	**1,947**	**1,732**	**-11%**
Net loss from discontinued operations	-46	-9	
Profit for the financial year	**1,902**	**1,723**	**-9%**
Thereof attributable to HeidelbergCement AG shareholders	**1,759**	**1,597**	**-9%**
Thereof attributable to HeidelbergCement AG shareholders – adjusted[1)]	**1,561**	**1,790**	**15%**

1) Adjusted for the additional ordinary result and income tax expense in connection with the disposal of the West region in the USA.

Business trend in the Group areas

Western and Southern Europe

Heidelberg Materials operates production sites in seven countries in the Western and Southern Europe Group area. In these markets, we manufacture cement, aggregates, and ready-mixed concrete. In addition, we produce asphalt in the United Kingdom and precast concrete and concrete products in Germany.

Heidelberg Materials focused on its core markets again in the 2022 financial year. In Spain, we finalised the divestment of our regional businesses in Asturias, Balearics, Catalonia, and Andalucia. With the acquisition of A1 Services, a recycling company in Manchester, United Kingdom, we have improved our strategic position for entering the recycling market. Divestment of the Madrid business is expected in 2023. In 2023, we will also complement our activities in Germany and the United Kingdom by recycled aggregates.

Economic development in the countries of the Western and Southern Europe Group area was positive at the start of the reporting year. However, economies then suffered from the effects of the Russia-Ukraine war and its impact on energy markets and inflation. Overall, the European countries performed solidly compared to the previous year. IMF data (January 2023) forecast GDP to see an increase in the United Kingdom by 4.1%, in Italy by 3.9%, in France by 2.6%, and in Germany by 1.9%. According to the IMF's October 2022 forecast, economic output in the Netherlands and Belgium is predicted to increase by 4.5% and 2.4% respectively.

The energy crisis resulted in a sharp rise in material costs and increases in financing costs, with respective impact on construction industry. Nonetheless, according to Euroconstruct's November 2022 forecast, the construction activity rose in 2022 in almost all Western and Southern countries – except in Germany where it decreased by 0.5% compared to 2021 – by between 1.4% in Belgium up to 12.1% in Italy. However, these increases were more a function of price rises and activity in renovation markets, rather than being driven by volumes. In all of the countries in the Group area, the high cost inflation led to substantial increases in prices for building materials.

Cement business line

In 2022, the Western and Southern Europe Group area's cement and clinker sales volumes decreased by 10.0% to 27.4 million tonnes (previous year: 30.4), with all countries experiencing a slowdown in activity.

To compensate energy inflation, all countries were able to increase their sales prices significantly, which more than offset the decrease in volumes. Revenue of the cement business line in the Western and Southern Europe Group area therefore increased by 17.5% to €3,385 million (previous year: 2,881). Excluding scope and currency effects the rise amounted to 17.6%.

Significant progress was made in modernising our cement plants in France, with investments in Airvault and Bussac being well on track. In Germany we pursued the network optimisation and now operate the Leimen plant as a grinding facility. In all countries we made good progress with plant adjustments to reduce our CO_2 footprint.

Aggregates business line

The Group area's deliveries of aggregates decreased by 7.0% to 78.2 million tonnes (previous year: 84.0). While sales volumes decreased more in Italy, Belgium, and France, the decline was only moderate in Germany and the United Kingdom.

2022 initiated a first step into recycling business with acquisitions in Germany and the United Kingdom, complementing our aggregates business in the future.

As a result of positive price development in all countries, revenue in the aggregates business line at €1,383 million (previous year: 1,278) was 8.2% above the previous year. Excluding scope and currency effects the rise amounted to 8.1%.

Ready-mixed concrete-asphalt business line

Ready-mixed concrete sales volumes dropped by 6.7% to 17.0 million cubic metres (previous year: 18.2) in the reporting year. Decreases were larger in France, where infrastructure projects in Paris have come to an end, yet in the United Kingdom volume declines were smaller, due to solid demand for infrastructure.

Asphalt activities in the Group area are limited to the United Kingdom, where asphalt sales volumes reduced compared to the previous year by 2.2% at 3.6 million tonnes (previous year: 3.7).

Revenue of the ready-mixed concrete-asphalt business line grew by 11.5% to €2,376 million (previous year: 2,131). Excluding scope and currency effects the rise amounted to 12.1%.

Service-joint ventures-other business line

The service-joint ventures-other business line essentially includes the precast concrete parts and concrete products operating lines in Germany. At €406 million (previous year: 367), revenue of the business line was 10.7% above the previous year.

Revenue and results

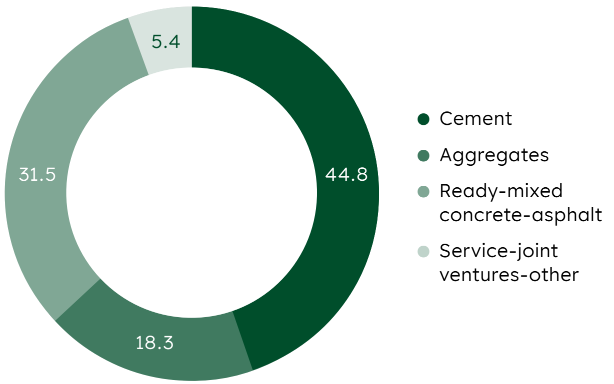
Thanks to strong development in sales prices, revenue for the Western and Southern Europe Group area rose by 13.5% to €6,308 million (previous year: 5,557). Excluding scope and currency effects the rise amounted to 13.8%.

The significant price increases to offset cost inflation were partially opposed by lower sales volumes, leading to a small decrease in results in the Group area. At €908 million (previous year: 937), the result from current operations before depreciation and amortisation was 3.2% below the level of the previous year. The result from current operations decreased by 1.9% to €550 million (previous year: 561). Excluding scope and currency effects the result from current operations before depreciation and amortisation decreased by 3.1% and the result from current operations by 2.6%.

Key data Western and Southern Europe

€m	2021	**2022**	Change
Revenue	5,557	6,308	13.5%
Result from current operations before depreciation and amortisation	937	908	-3.2%
Result from current operations	561	550	-1.9%
Cement and clinker sales volumes (Mt)	30.4	27.4	-10.0%
Aggregates sales volumes (Mt)	84	78.2	-7.0%
Ready-mixed concrete sales volumes (Mm³)	18.2	17.0	-6.7%
Asphalt sales volumes (Mt)	3.7	3.6	-2.2%
Employees as at 31 December (FTE)	15,040	14,883	-1.0%

Revenue Western and Southern Europe 2022 in %



Northern and Eastern Europe-Central Asia

Heidelberg Materials is active in 19 countries in the Northern and Eastern Europe-Central Asia Group area. In many of these countries, we produce cement as well as aggregates and ready-mixed concrete, and in some we also manufacture concrete products.

In line with the IMF's October forecast, the economies in the countries of the Group area largely developed positively in 2022. In Georgia, Hungary, and Greece, economic output is estimated to have increased by 9.0%, 5.7%, and 5.2%, respectively. GDP growth of 4.8%, 3.9%, 3.8%, and 3.6% is forecast for Romania, Bulgaria, Poland, and Norway, respectively. Economic growth in both Sweden and Denmark is anticipated to be 2.6%. GDP in Kazakhstan and Czechia is expected to have increased by 2.5% and 1.9%, respectively, in comparison with the previous year.

Construction activity in most countries of the Northern and Eastern Europe-Central Asia Group area developed positively in 2022, according to Euroconstruct's November forecast. The construction industry in Sweden is expected to have grown by 3.2% and was strengthened by commercial construction in particular. In Norway, thanks to strong growth in civil engineering, the decline in construction activity in other construction sectors should be more than offset, leading to an overall increase of 0.6% compared with the previous year's level. According to Euroconstruct, only slight growth of 0.7% is expected for the Hungarian construction sector in 2022 after good development in the previous year. An increase of 4.5% is predicted for the Polish construction industry, primarily supported by residential and building construction. A slight rise of 1.4% is anticipated in Czechia. According to the forecast, the negative development in residential and civil engineering was offset by the positive development in building construction.

As part of our portfolio optimisation, we completed the disposal of our aggregates business and two ready-mixed concrete plants in Greece at the beginning of 2022.

Cement business line

The cement and clinker sales volumes of the Northern and Eastern Europe-Central Asia Group area fell by 7.8% to 22.7 million tonnes (previous year: 24.6). Sales volumes declined in almost all countries. The reasons for this ranged from falling export volumes and weakening purchasing power to temporary reduction in public sector investment. Price increases were successfully implemented in all countries.

Revenue of the cement business line was significantly above the previous year's level, with an increase of 18.5% to €1,933 million (previous year: 1,631).

In 2022, we made further progress with our CCUS projects (see **Research and development chapter**).

Aggregates business line

The main markets in the aggregates business line are in Northern Europe as well as in Czechia and Poland.

Deliveries of aggregates in 2022 decreased overall by 5.5% to 47.1 million tonnes (previous year: 49.8). On a like-for-like basis, sales volumes declined by 1.6%. However, the development in the countries of the Group area varied. While Czechia and Sweden recorded decreases in volumes, sales volumes grew in Romania and Norway. The cross-border Mibau Group, which has by far the largest sales volume in the Group area, recorded a marginal decline in sales volumes. Price increases were successfully implemented in all countries.

Revenue in the aggregates business line rose by 14.0% to €644 million (previous year: 564).

Ready-mixed concrete-asphalt business line

The main markets in the ready-mixed concrete business line are in Northern and Eastern Europe. We are not active in the asphalt business in this Group area.

Ready-mixed concrete deliveries in the Group area fell by 3.8% to 6.0 million cubic metres (previous year: 6.2). Excluding changes to the scope of consolidation, the decline was 1.5%. This resulted mainly from weaker purchasing power, delays in the completion of building projects, and a lack of new projects. Price increases were successfully implemented in all countries.

Revenue of the ready-mixed concrete-asphalt business line grew by 16.3% to €715 million (previous year: 614).

Service-joint ventures-other business line

This business line includes our joint ventures as well as the concrete products of Nordic Precast Group (NPG), which is active in Denmark, Poland, Estonia, Norway, and Sweden.

The joint ventures are located in Georgia, Hungary, and Bosnia-Herzegovina. Cement sales volumes in these three countries developed differently. In Hungary and Bosnia-Herzegovina, we recorded a decline, whereas sales volumes in Georgia increased. We also operate other joint ventures – particularly in the ready-mixed concrete business – in Norway, Croatia, Czechia, and Poland.

Revenue of the service-joint ventures-other business line rose by 14.3% to €554 million (previous year: 485). Revenue of our joint ventures is not included here, as these are accounted for at equity.

Revenue and results

The 2022 financial year was characterised by a significant increase in production costs, especially in relation to energy, fuels, and raw materials, which we countered with price adjustments.

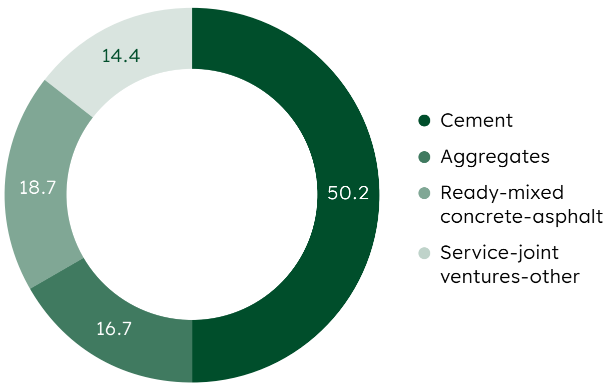
Revenue of the Northern and Eastern Europe-Central Asia Group area grew significantly by 16.7% to €3,600 million (previous year: 3,084). Excluding scope and exchange rate effects, it rose by 17.0%.

At €730 million (previous year: 737), the result from current operations before depreciation and amortisation was 1.0% slightly below the level of the previous year. The result from current operations decreased by 1.8% to €534 million (previous year: 544). Excluding scope and exchange rate effects, the result from current operations before depreciation and amortisation as well as the result from current operations were 2.2% and 3.1% lower than in the previous year.

Key data Northern and Eastern Europe-Central Asia

€m	2021	**2022**	Change
Revenue	3,084	3,600	16.7%
Result from current operations before depreciation and amortisation	737	730	-1.0%
Result from current operations	544	534	-1.8%
Cement and clinker sales volumes (Mt)	24.6	22.7	-7.8%
Aggregates sales volumes (Mt)	49.8	47.1	-5.5%
Ready-mixed concrete sales volumes (Mm³)	6.2	6.0	-3.8%
Employees as at 31 December (FTE)	11,101	10,869	-2.1%

Revenue Northern and Eastern Europe-Central Asia 2022 in %



North America

The United States of America and Canada form the North America Group area. In this regions, Heidelberg Materials produces cement, aggregates, ready-mixed concrete, and asphalt. In addition, concrete pipes are manufactured in Canada.

In the reporting year, we expanded our market presence. In April 2022, we acquired Meriwether Ready Mix, a producer of ready-mixed concrete with a well-established residential and commercial customer base in the Metropolitan Atlanta area. The acquired assets include four ready-mixed concrete plants and a fleet of mixer trucks.

As part of our strategy to strengthen our portfolio of recycled materials, we completed the acquisition of JEV Recycling, a recycler in the Greater Seattle area. JEV operates a facility in which they process concrete and asphalt into recycled aggregate products. We also recently added a new concrete recycling plant to our operations in Redmond, Washington.

In its January 2023 forecast, the International Monetary Fund (IMF) predicted an increase in the USA's gross domestic product in 2022 of 2.0%, versus an increase of 5.9% in the previous year.

The American Portland Cement Association (PCA) expects 2022 total construction spending to be 2.0% lower than the previous year, as the growth rate in residential construction of 1.7% was outpaced by a decline of 5.8% and 4.0% in nonresidential and public construction, respectively.

For Canada, the IMF predicts (January forecast) an increase of 3.5% in gross domestic product for 2022, compared with an increase of 5.0% in 2021.

Cement business line

Cement and clinker sales volumes of our plants were below previous year at 13.5 million tonnes (previous year: 15.7), a decrease of 13.7%. On a like-for-like basis, excluding consolidation effects from the sale of the West region in October 2021, cement and clinker sales volumes declined by 2.8% in 2022.

While demand remained high in all regions, volumes were negatively impacted by unfavourable weather conditions in the first half of the year in our Northeast and Midwest Region. Among others, supply chain challenges and increased freight rates on imports further impacted sales volumes in particular the Northeast and Canada Region. Significant price increases in all regions helped to mitigate the decrease in volume and as a result, revenue of the cement business line increased by 7.9% in 2022 to €1,974 million (previous year: €1,828). On a like-for-like basis, excluding consolidation effects from the sale of the West region and exchange rate effects, revenue of the cement business line increased by 7.5%.

In 2022, several projects aimed at modernising our production facilities continued, among others the reconstruction and modernisation of the Mitchell, Indiana, cement plant. In the reporting year, all remaining equipment assembly was completed, including the pre-heater tower, raw mills, finish mills, etc. The modernised plant will be operational in the course of 2023.

Several key projects which will contribute to our ambitious climate targets also gained momentum in 2022 (see **Research and development chapter**).

Aggregates business line

In the USA and Canada, Heidelberg Materials has a network of production sites for sand, gravel, and hard rock. Total sales volumes declined versus the previous year by 5.0% at 121.9 million tonnes (previous year: 128.3). On a like-for-like basis, excluding consolidation effects from the sale of the West region, total aggregates sales volumes were 0.5% higher than in the previous year.

In 2022, we recorded volume increases in many core markets, with the strongest growth in the Midwest and Canada regions. Volumes declined slightly in the Southwest and Northeast regions, mainly due to adverse weather conditions in the first half of the year. Price increases were implemented successfully in all market regions of the USA and Canada.

Revenue in the aggregates business line increased by 15.6% to €1,987 million (previous year: €1,718). On a like-for-like basis, excluding consolidation effects from the sale of the West region and exchange rate effects, revenue of the aggregates business line was 9.4% above the previous year's value.

Ready-mixed concrete and asphalt business lines

Ready-mixed concrete sales volumes decreased in 2022 by 18.5% to 6.0 million cubic meters (previous year: 7.4). On a like-for-like basis, excluding consolidation effects from the sale of the West region, total ready-mixed concrete sales volumes fell by 4.5%. Sales volumes grew in the Southeast and Canada regions as a direct result of the Corliss and Meriwether acquisitions, respectively. Significant price increases were implemented successfully in all market regions of the USA and Canada.

Asphalt sales volumes decreased significantly by 49.3% to 2.2 million tonnes (previous year: 4.4). On a like-for-like basis, excluding consolidation effects from the sale of the West region, total asphalt sales volumes fell slightly by 2.7% with stable volume developments in the Canada region and slight declines in the Northeast.

Revenue of the ready-mixed concrete and asphalt business line decreased by 5.7% to €1,161 million (previous year: €1,231). On a like-for-like basis, excluding consolidation effects from the sale of the West region and exchange rate effects, revenue of the business line ready-mixed concrete and asphalt increased, however, by 4.4%.

Service-joint ventures-other business line

This business line includes our joint venture Texas Lehigh Cement Company LP, headquartered in Austin, Texas. The company, in which we hold a 50% stake, operates a cement plant in Buda, Texas, its sales volumes decreased compared with the previous year.

Revenue in the business line which includes the concrete pipes operating line in the Canada region and other associated activities, increased by 18.7% to €331 million (previous year: €279). Revenue of our joint ventures is not included here, as these are accounted for at equity. On a like-for-like basis, excluding consolidation effects from the sale of the West region and exchange rate effects, revenue of the Service-joint ventures-other business line increased by 18.1%.

Revenue and results

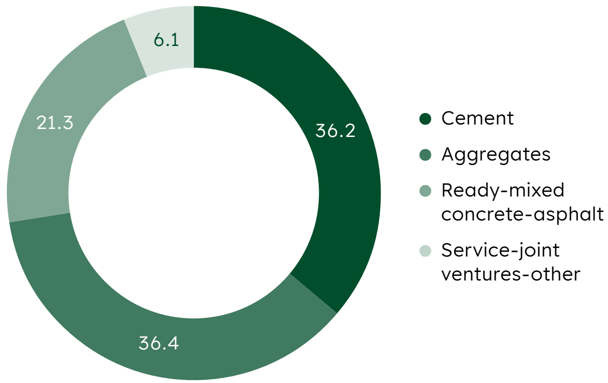
Total revenue in the North America Group area increased by 7.8% to €4,907 million (previous year: €4,551). On a like-for-like basis, excluding scope effects and exchange rate effects, revenue was up 12.1% on the previous year.

The result from current operations before depreciation and amortisation decreased slightly by 1.4% to €1,028 million (previous year: €1,042). The result from current operations fell by 3.0% to €700 million (previous year: €722). Excluding scope and exchange rate effects, the result from current operations before depreciation and amortisation as well as the result from current operations were stable (–0.8% and +0.2%, respectively).

Key data North America

€m	2021	**2022**	Change
Revenue	4,551	4,907	7.8%
Result from current operations before depreciation and amortisation	1,042	1,028	-1.4%
Result from current operations	722	700	-3.0%
Cement and clinker sales volumes (Mt)	15.7	13.5	-13.7%
Aggregates sales volumes (Mt)	128.3	121.9	-5.0%
Ready-mixed concrete sales volumes (Mm^3)	7.4	6.0	-18.5%
Asphalt sales volumes (Mt)	4.4	2.2	-49.3%
Employees as at 31 December (FTE)	7,637	7,933	3.9 %

Revenue North America 2022 in %



Asia-Pacific

The Asia-Pacific Group area comprises nine countries. The businesses in India, Bangladesh, and Brunei operate solely in the cement business line. In Indonesia, the business is vertically integrated in cement, aggregates, and ready-mixed concrete. Malaysia and Australia operate aggregates, ready-mixed concrete, and asphalt businesses with recycled building materials for civil engineering and infrastructure projects also being supplied in Australia. The Thailand business consists of ready-mixed concrete in addition to cement. We are also represented via a cement joint venture in Australia, two cement joint ventures in mainland China, and two joint ventures for ready-mixed concrete and aggregates in Hong Kong.

In its October 2022 forecast, the IMF anticipated economic growth of 4.0% in the Asia and Pacific region for 2022. Sharper than expected slowdowns with high inflation, the like of which has not been seen in decades, contributed to the low GDP growth in the region. Extended lockdowns due to the Zero-Covid policy and worsening property market crisis caused the sharp slowdown in China with a growth rate of only 3.2% with global impact. A weaker than expected second quarter as well as subdued external demand pushed down the expected growth rate of India to estimated 6.8%. The IMF anticipates growth of 5.3% and 5.4% respectively in Indonesia and Malaysia. Expected growth in Thailand of 2.8% is behind that of its peers in ASEAN due to its heavy dependence on tourism, which was badly impacted by Chinese lockdowns. For Australia, a relatively high growth rate of 3.8% compared to the global economy is forecast despite unprecedented wet weather, high inflation, and increased interest rates.

Cement business line

Cement and clinker sales volumes in the Asia-Pacific Group area reduced slightly by 0.7% in 2022 to 34.5 million tonnes (previous year: 34.7).

In Indonesia, acceleration of infrastructure projects was an important support for the overall flat construction sector performance in 2022 where overall cement demand contracted by 3%. The residential segment, which is represented mainly by bagged cement, remained soft overall. Cement and clinker sales volumes of our subsidiary Indocement decreased by 2.1% to 17.6 million tonnes (previous year: 18.0). The significant rise in energy, fuel, and kraft paper prices could not be fully offset by price increases. To reduce CO_2 emissions and mitigate high energy costs, the Indonesia business has increased the use of alternative fuels.

Government spending on urban and metropolitan infrastructure together with housing projects continued to boost the construction industry in India, with estimated growth of 12.8% in 2022. Our total cement and clinker deliveries in India rose by 6.5% due to new competitor cement capacities commissioned in core markets. Fuel costs increased significantly as a result of the Russia-Ukraine war and could not be fully recovered by pricing. Investments in alternative fuel projects were made to reduce energy costs and CO_2 emissions.

In Thailand, economic recovery was slow due to high inflation and delays in government infrastructure projects. The cement sales volumes of our plants declined by 1.6%. Weak market demand across the construction industry except for regional export markets caused the construction sector to contract 2.5% in 2022. The use of alternative fuels was increased.

In Bangladesh, the cement industry has been impacted by high inflation, power shortages, and currency devaluation, which translated to softer demand and higher material costs. Overall, cement demand decreased by 1.4% while our sales volumes reduced by 12.4% due to intensified competition in core markets. Sales prices remained under pressure.

The cement market in Brunei remains quiet with no new major infrastructure projects undertaken by the government. The cement sales volumes of our grinding plant declined significantly.

Revenue of the cement business line rose overall by 16.9% to €1,961 million (previous year: 1,678). Excluding exchange rate effects, the increase amounted to 10.1%.

Aggregates business line

In 2022, total aggregates deliveries grew by 6.0% to 38.7 million tonnes (previous year: 36.6).

In Australia, aggregates sales volumes improved despite the unseasonal rainy weather throughout the year. Sales prices were above the previous year's level. In Malaysia, our deliveries increased significantly as construction activities recovered after pandemic-related restrictions were lifted. Aggregates volumes in Indonesia recorded strong growth.

Revenue of the aggregates business line grew by 18.0% to €665 million (previous year: 563). Excluding exchange rate effects, the increase amounted to 13.4%.

Ready-mixed concrete-asphalt business line

Sales volumes of ready-mixed concrete improved by 5.7% in 2022 to 11.0 million cubic metres (previous year: 10.4). While Australia suffered from wet weather, Malaysia, Indonesia, and Thailand saw an improvement in volumes as a result of economic recovery and the lifting of pandemic restrictions.

Asphalt deliveries increased by 1.7% to 2.1 million tonnes (previous year: 2.0). In Malaysia, bitumen price increases and diversion of government spending to counter high food and energy prices have caused lower demand for road works. Australia, on the other hand, recorded a pleasing development of sales volumes.

Revenue of the ready-mixed concrete-asphalt business line grew by 13.7% to €1,298 million (previous year: 1,141). Excluding scope and exchange rate effects, the increase amounted to 7.8%.

Service-joint ventures-other business line

The service-joint ventures-other business line comprises the cement, aggregates, and ready-mixed concrete activities of our joint ventures in the Chinese provinces of Guangdong and Shaanxi and in Hong Kong as well as of our Australian joint venture, Cement Australia. These are accounted for at equity.

As a result of the significantly lower economic growth in China, total sales volumes of the two companies in 2022 were below the previous year's level. Pricing was under pressure due to weak economy. In Australia, our joint venture Cement Australia benefited from both increased deliveries and better sales prices.

Revenue of the business line, which is mainly generated from recycled aggregates in Australia, rose by 29.5% to €59 million (previous year: 45). Excluding exchange rate effects, the increase amounted to 24.5%. Revenue of our joint ventures is not included here, as these are accounted for at equity.

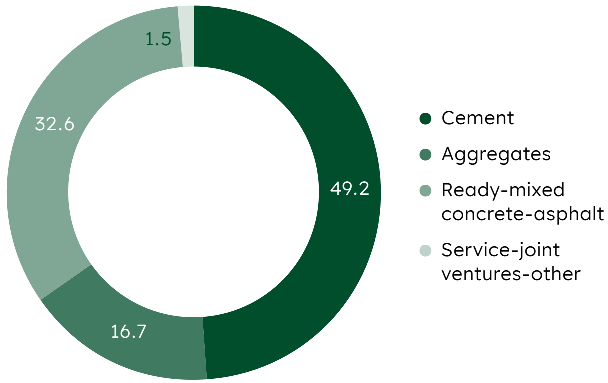
Revenue and results

Revenue of the Asia-Pacific Group area rose by 16.2% to €3,633 million (previous year: 3,126). Excluding consolidation and exchange rate effects, the increase amounted to 10.0%. Price increases did not fully offset cost inflation for fuels, energy, and other materials, which were also affected by the stronger US dollar. The result from current operations before depreciation and amortisation decreased by 10.8% compared with the previous year to €598 million (previous year: 670). The result from current operations reduced by 19.7% to €350 million (previous year: 435). Excluding consolidation and exchange rate effects, the result from current operations before depreciation and amortisation fell by 15.7% and the result from current operations by 24.3%.

Key data Asia-Pacific

€m	2021	2022	Change
Revenue	3,126	3,633	16.2%
Result from current operations before depreciation and amortisation	670	598	-10.8%
Result from current operations	435	350	-19.7%
Cement and clinker sales volumes (Mt)	34.7	34.5	-0.7%
Aggregates sales volumes (Mt)	36.6	38.7	6.0%
Ready-mixed concrete sales volumes (Mm^3)	10.4	11.0	5.7%
Asphalt sales volumes (Mt)	2.0	2.1	1.7%
Employees as at 31 December (FTE)	12,460	12,139	-2.6%

Revenue Asia-Pacific 2022 in %



Africa-Eastern Mediterranean Basin

Heidelberg Materials operates in 14 countries in the Africa-Eastern Mediterranean Basin Group area. We mainly manufacture cement in the ten countries south of the Sahara: Benin, Burkina Faso, the Democratic Republic of the Congo, the Gambia, Ghana, Liberia, Mozambique, South Africa, Tanzania, and Togo. In South Africa, we have a stake in a grinding plant through a joint venture. We are one of the four biggest cement producers in all countries except South Africa. In North Africa, we are active in the cement and ready-mixed concrete business in Morocco and Egypt, as well as in the aggregates business in Morocco. In the Eastern Mediterranean Basin, we have plants in Israel and Turkey. In Israel, we mainly produce aggregates and ready-mixed concrete, and operate a cement import terminal as a separate line of business. Our joint venture Akçansa in Turkey is one of the country's largest cement manufacturers and also runs ready-mixed concrete and aggregates operations. Thanks to its ports, Akçansa is also creating value as an exporter for our positions in Africa and overseas.

According to the October 2022 forecast by the IMF, economic growth in Sub-Saharan Africa is expected to have slowed to 3.6% in 2022, but remains globally above average. Strong population growth, urbanisation, and negotiations over free trade agreements were among the main drivers of growth. Higher costs for imported goods and rising prices for electricity and food, on the other hand, had a negative impact. In our largest markets, growth rates of 3.6% in Ghana, 4.5% in Tanzania, and 5.4% in Togo are anticipated. For the remaining countries, growth expectations range between 6.1% for the Democratic Republic of the Congo and 2.1% for South Africa.

Demand for building materials in the countries south of the Sahara weakened slightly in 2022 compared with the strong previous year. The market environment was characterised, on the one hand, by varying local economic development with difficult global trade conditions as a result of the Russia-Ukraine war and, on the other, by a young, rapidly growing population as well as increasing internal migration to cities and urban areas. A key indicator is the rising per capita consumption of cement, which is still significantly lower in the Sub-Saharan countries than in more developed or industrialised countries. Our production sites, which are primarily located close to urban centers, are well positioned to serve the growing demand for building materials.

In Morocco, the construction industry's recovery from the setback at the beginning of the pandemic has slowed. According to the IMF's October forecast, gross domestic product is estimated to have increased by 0.8% in 2022. Egypt is expected to have achieved economic growth of 6.6% despite a volatile economic situation. The development of the Egyptian cement market continues to be determined by government interventions. These include, among other things, a production cartel, which partially mitigates local cost pressure. To further reduce competitive pressure, we also implemented further cost-cutting measures here in 2022.

In Turkey, the strong economic growth of the previous year has more than halved and is expected to reach 5.0% in 2022 according to the IMF's October forecast. This growth is offset by hyperinflation and a weak local currency.

Israel is expected to have increased its economic output by 6.1% in 2022.

Cement business line

The cement and clinker sales volumes of the Africa-Eastern Mediterranean Basin Group area decreased slightly by 1.3% to 20.8 million tonnes in the reporting year (previous year: 21.1). Excluding scope effects, sales volumes were at the previous year's level.

In most countries south of the Sahara, total cement and clinker deliveries fell in 2022. As part of our portfolio optimisation, we indirectly acquired a 50% stake in the cement manufacturer CBI Ghana. In the future, secondary cementitious materials will be produced locally at this site, reducing the need for clinker imports into the region.

In Morocco, cement and clinker deliveries declined in the reporting year due to increased building materials costs and the significantly lower overall economic growth in comparison with the previous year. The significant increase in sales volumes in Egypt is due to national infrastructure projects.

In addition, we expanded our cement activities in some of the fast-growing countries. Focus of our investments was on improving fuel flexibility and alternative fuel usage in some core markets and on optimising clinker use in order to put ourselves in the best position for future market growth and sustainable competition.

Revenue of the cement business line increased by 10.7% to €1,755 million (previous year: 1,585).

Aggregates business line

In Israel, we recorded an increase in sales volumes after the decreases in volumes in the previous year. In Morocco, aggregates sales volumes were significantly below the previous year's level. Total aggregates deliveries of the Group area remained stable in the reporting year at 7.7 million tonnes (previous year: 7.7).

Revenue of the aggregates business line grew by 17.7% to €92 million (previous year: 78).

Ready-mixed concrete-asphalt business line

Deliveries of ready-mixed concrete declined by 2.9% to 5.0 million cubic metres (previous year: 5.1) in 2022. In Israel, asphalt sales volumes remained stable at 0.3 million tonnes (previous year: 0.3).

Total revenue of the ready-mixed concrete-asphalt business line grew by 16.4% to €409 million (previous year: 352).

Service-joint ventures-other business line

The domestic cement sales volumes of our Turkish joint venture Akçansa recovered in 2022 after the weak previous year. While cement exports continued to rise, clinker deliveries fell significantly. Overall, cement and clinker sales volumes remained almost at the previous year's level.

Revenue of the business line, which is only generated by a few non-core activities, rose by 17.1% to €49 million (previous year: 42). Revenue of our activities in Turkey is not included here, as these are accounted for at equity.

Revenue and results

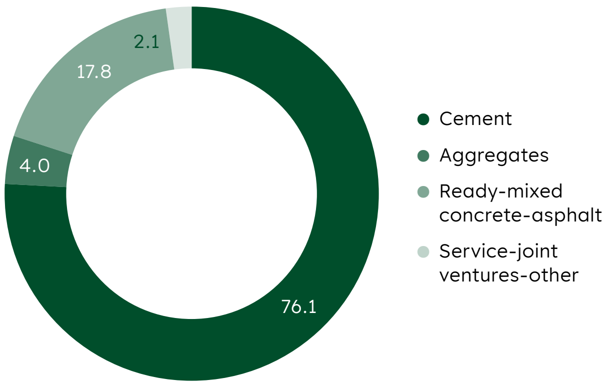
Revenue of the Africa-Eastern Mediterranean Basin Group area rose by 10.4% to €2,108 million (previous year: 1,909). Excluding scope and exchange rate effects, revenue was up 12.8% on the previous year's level.

The result from current operations before depreciation and amortisation fell by 5.3% to €464 million (previous year: 490). At €355 million (previous year: 384), the result from current operations was 7.6% below the previous year's level; excluding scope and exchange rate effects, it fell by 5.6%.

Key data Africa-Eastern Mediterranean Basin

€m	2021	**2022**	Change
Revenue	1,909	2,108	10.4%
Result from current operations before depreciation and amortisation	490	464	-5.3%
Result from current operations	384	355	-7.6%
Cement and clinker sales volumes (Mt)	21.1	20.8	-1.3%
Aggregates sales volumes (Mt)	7.7	7.7	0.2%
Ready-mixed concrete sales volumes (Mm^3)	5.1	5.0	-2.9%
Asphalt sales volumes (Mt)	0.3	0.3	0.4%
Employees as at 31 December (FTE)	4,886	4,858	-0.6%

Revenue Africa-Eastern Mediterranean Basin 2022 in %



Group Services

The Group Services business unit mainly comprises the activities of Heidelberg Materials Trading (HC Trading until 30 January 2023) – one of the largest trading companies worldwide for cement, clinker, and secondary cementitious materials as well as for solid and alternative fuels. With a network of offices around the globe, Heidelberg Materials Trading has a worldwide reach while supporting its customers locally. From its headquarters in Heidelberg, Germany, it covers Europe and Africa. Its office in Miami, Florida/USA, supports customers in North, Central, and South America. In Asia, in addition to the main location in Singapore, we are also represented in Dubai. Shipping logistics are provided centrally from Istanbul.

Heidelberg Materials Trading's mission is the international procurement, transport, and sale of bulk goods and fuels via sea routes, both across the Group and for third-party customers. Sales and revenue volumes with Group and third-party customers are roughly equally split. Heidelberg Materials Trading optimises the utilisation of our production worldwide by balancing supply and demand for cement and clinker.

In the reporting year, Heidelberg Materials Trading's trade volume fell by 19.7% to 20.9 million tonnes (previous year: 26.0). The decrease was mainly due to a worldwide reduction in the availability of fuels, building materials, and additives in connection with the Russia-Ukraine war, as well as to more selective trading in volatile market conditions. In the reporting year, Heidelberg Materials Trading supplied customers in more than 75 importing countries with more than 1,150 shipments from over 35 exporting countries. The majority of the deliveries went to Africa, Europe, and Americas. Turkey, Saudi Arabia, Egypt, and Spain were among the main export countries.

In April 2022, we sold our cement activities in the United Arab Emirates as part of our portfolio optimisation.

Revenue and results

Revenue of the Group Services business unit rose sharply, by 25.4% in comparison with the previous year, to €1,783 million (previous year: 1,421), primarily because of increased material prices and freight rates. Excluding scope and exchange rate effects, the increase amounted to 25.8%.

The result from current operations before depreciation and amortisation was €35 million (previous year: 30), 13.5% higher than in the previous year; on a like-for-like basis, growth amounted to 15.7%. The result from current operations also increased by 13.8% to €34 million (previous year: 30); on a like-for-like basis, the rise amounted to 16.0%.

Key data Group Services

€m	2021	**2022**	Change
Revenue	1,421	1,783	25.4%
Result from current operations before depreciation and amortisation	30	35	13.5%
Result from current operations	30	34	13.8%
Trading volumes (Mt)	26.0	20.9	-19.7%
Employees as at 31 December (FTE)	85	99	16.5%

Statement of cash flows

In a difficult market environment and in the context of the significantly higher prices for energy and raw materials compared with the previous year, the cash inflow from operating activities of continuing operations in the 2022 financial year was slightly below the level of the previous year at €2,435 million (previous year: 2,473).

At €360 million (previous year: 747), income taxes paid were significantly below the level of the previous year. This is attributable to the lower profit before tax compared with the previous year and a non-recurring tax payment in the previous year in connection with the sale of the business activities in the West region of the USA amounting to €306 million. Interest received increased compared with the previous year by €197 million to €273 million (previous year: 75), mainly due to the substantial rise in payments received from interest rate and cross-currency interest rate swaps. Interest paid decreased by €76 million to €212 million (previous year: 288), in particular due to lower interest payments for bonds. In the previous year we repaid two bonds with a total nominal volume of €1.5 billion and in May 2022 a bond with a nominal volume of €750 million.

The increase in working capital of €805 million (previous year: 207) had a negative impact on the cash flow from operating activities. In particular, the rise in energy and raw material prices negatively impacted inventories. The increase in factoring programmes had a positive effect and reduced working capital by €142 million in the reporting year. The previous year saw an increase in working capital of €278 million due to a reduction in factoring programmes.

Following a cash inflow of €620 million in the previous year, investment activities in the reporting year resulted in a cash outflow of €1,482 million. Cash-relevant investments increased by €212 million to €1,811 million (previous year: 1,599). Through investment discipline, payments for the acquisition of property, plant and equipment and intangible assets less subsidies received were reduced by €160 million compared with the previous year to €1,260 million (previous year: 1,419). Payments for the acquisition of subsidiaries and other business units in the amount of €63 million (previous year: 145) mainly related to business combinations in the United Kingdom and North America. In the previous year, the payments resulted mainly from the acquisition of Corliss Resources, LLC, in North America. Investments in other financial assets, associates, and joint ventures amounting to €488 million (previous year: 35) mainly relate to the acquisition of 44.9% of the shares in Command Alkon for €326 million, the indirect acquisition of 50% of the shares in CBI Ghana for €32 million, and the acquisition and granting of loans totalling €95 million. Investments for maintenance and optimising our capacities amounted to €1,289 million (previous year: 1,084), and €522 million (previous year: 516) related to capacity expansions.

Regarding the cash-relevant divestments of €329 million (previous year: 2,219), proceeds of €145 million (previous year: 2,005) related to the disposal of subsidiaries and other business units. In the reporting year, these mainly concerned the divestments in Greece and Spain. In the previous year, this item included in particular the proceeds from the sale of the business activities in the West region of the USA. Proceeds from the sale of intangible assets and property, plant and equipment decreased by €39 million to €145 million (previous year: 184). The disposal of other financial assets, joint ventures, and associates as well as the repayment of loans resulted in proceeds of €39 million (previous year: 30).

Financing activities in the 2022 financial year generated a cash outflow of €2,539 million (previous year: 2,840). The continuation of the progressive dividend policy at HeidelbergCement AG resulted in a dividend payment of €458 million in the reporting year (previous year: 437). Dividend payments to non-controlling interests decreased slightly by €12 million to €169 million (previous year: 181). The second tranche of the HeidelbergCement AG share buyback programme resulted in payments for the acquisition of own shares totalling €350 million in the 2022 financial year. In the previous year, own shares were repurchased for a total of €350 million under the first tranche.

Changes in ownership interests in subsidiaries resulted in payments of €76 million in the reporting year (previous year: 100) and, as in the previous year, mainly related to the 1.8% (previous year: 1.9%) increase of our share in PT Indocement Tunggal Prakarsa Tbk., Indonesia, through the acquisition of own shares.

The cash outflow arising from the net proceeds from and repayment of bonds and loans amounting to €1,484 million (previous year: 1,772) includes the early repayment of a bond of €750 million, the repayment of a debt certificate of €361 million, and the repayment of lease liabilities of €237 million. The main repayments in the previous year involved two bonds with a total value of €1.5 billion and lease liabilities of €253 million.

In the 2022 financial year, Heidelberg Materials was able to meet its payment obligations at all times.

Consolidated statement of cash flows (short form)

€m	2021	**2022**	Difference
Cash flow	2,925	3,481	556
Changes in working capital	-207	-805	-598
Decrease in provisions through cash payments	-245	-241	4
Cash flow from operating activities – continuing operations	**2,473**	**2,435**	**-38**
Cash flow from operating activities – discontinued operations	-77	-15	62
Cash flow from operating activities	**2,396**	**2,420**	**24**
Investments (cash outflow)	-1,599	-1,811	-212
Divestments (cash inflow)	2,219	329	-1,890
Cash flow from investing activities	**620**	**-1,482**	**-2,102**
Capital repayment to non-controlling interests	-1	-2	-1
Dividends	-618	-628	-10
Acquisition of treasury shares	-350	-350	-0
Changes in ownership interests in subsidiaries	-100	-76	24
Net change in bonds, loans and lease liabilities	-1,772	-1,484	288
Cash flow from financing activities	**-2,840**	**-2,539**	**301**
Effect of exchange rate changes	65	-60	-125
Change in cash and cash equivalents	**241**	**-1,661**	**-1,902**

Investments

In the 2022 business year, Heidelberg Materials continued its portfolio optimisation and made subsequent investments and divestments.

Cash-relevant investments increased by €212 million compared with the previous year to €1,811 million (previous year: 1,599). On the other hand, there were cash-relevant divestments of €329 million (previous year: 2,219). Cash-relevant net investments amounted to €1,482 million (previous year: net divestments of 620).

Investments in property, plant and equipment (including intangible assets) accounted for €1,335 million (previous year: 1,511). Investments in property, plant and equipment served to maintain and improve our production facilities. A continued focus of these activities was on improving our carbon footprint. They include the construction of a carbon capture and storage (CCS) system at the Brevik cement plant in Norway, investments in solar power in Togo and Thailand, the construction of waste heat recovery systems in India and Egypt, and the construction of a facility for the separate grinding of limestone and slag at our Górazdze cement plant in Poland. Some of these projects received state funding. In the reporting year, state subsidies amounted to €76 million (previous year: 92). Major capital expenditure also related to the modernisation and reorganisation of the cement production sites in France and in the Midwest region of the USA.

Net investments in property, plant and equipment (investments in and divestments of property, plant and equipment after deduction of grants) amounted to €1,080 million (previous year: 1,208) in the 2022 business year.

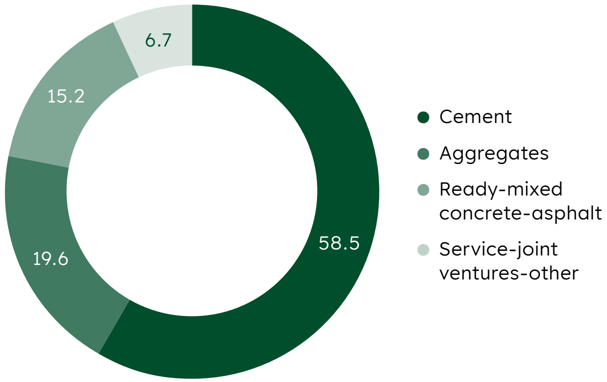
Investments in financial assets, associates, and joint ventures as well as investments in subsidiaries and other business units increased to €551 million (previous year: 180). These were primarily strategic investments. In relation to the digitalisation of the building materials industry, we acquired a non-controlling interest in Command Alkon, a globally active provider of comprehensive supply chain technology solutions for building materials. In order to further reduce CO_2 emissions, we acquired a participation in CBI S.A., Switzerland. CBI S.A. controls the Ghanaian cement manufacturer CBI Ghana. The acquisition of the shares is also linked to an investment in the construction of the world's largest calcined clay plant. In addition, recycling companies were purchased in the United Kingdom and the USA. Finally, Heidelberg Materials further expanded its presence in the Atlanta metropolitan area, USA, by acquiring all of the assets of the ready-mixed concrete producer Meriwether Ready Mix.

In 2022, divestments totalled €329 million (previous year: 2,219). In the reporting year, the sales of the aggregates and ready-mixed concrete business in the Spanish region of Catalonia, the integrated cement plant in Malaga, and three aggregates and ready-mixed concrete plants in Andalusia were completed. We also concluded the sale of the aggregates business and two ready-mixed concrete plants in Greece. The high level of divestment in the previous year was mainly attributable to the sale of the business activities in the cement, aggregates, ready-mixed concrete, and asphalt business lines in the West region of the USA.

Investments

€m	2021	**2022**	Change
Western and Southern Europe	426	342	-19.7%
Northern and Eastern Europe-Central Asia	172	190	10.2%
North America	498	464	-6.9%
Asia-Pacific	208	161	-22.7%
Africa-Eastern Mediterranean Basin	109	96	-12.1%
Group Services	6	7	18.7%
Financial assets and other business units	180	551	-
Total	**1,599**	**1,811**	**13.2%**

Investments in property, plant, and equipment[1] by business lines 2022 in %



1) Incl. intangible assets

Consolidated balance sheet

In comparison with 31 December 2021, the balance sheet total as at 31 December 2022 had decreased by €455 million to €33,256 million (previous year: 33,711).

Intangible assets increased by €206 million to €8,577 million (previous year: 8,372). The rise resulted in particular from positive currency effects of €185 million. At €13,660 million, property, plant and equipment were at the level of the previous year (previous year: 13,631). Additions to property, plant and equipment amounting to €1,484 million were offset by depreciation, amortisation, impairments, and reversals of impairment losses totalling €1,360 million. Financial fixed assets rose by €593 million to €2,715 million (previous year: 2,123). €326 million of this increase is attributable to the acquisition of 44.9% of the shares in Command Alkon. Other non-current assets decreased by €260 million to €1,184 million (previous year: 1,443). The decrease is mainly due to overfunded pension plans, which fell by €246 million mainly due to the remeasurement at the end of the year.

Inventories increased by €458 million to €2,669 million (previous year: 2,211), largely as a result of higher raw material prices. Trade receivables rose by €203 million to €2,040 million (previous year: 1,837), primarily as a result of increased revenue. Other current assets reduced by €1,684 million to €2,410 million (previous year: 4,094). This resulted in particular from the decrease in cash and cash equivalents of €1,661 million to €1,454 million (previous year: 3,115). The change in cash and cash equivalents is presented in the **statement of cash flows**.

On the equity and liabilities side, equity increased by €965 million to €17,624 million (previous year: 16,659). Total comprehensive income amounted to €1,973 million. In the reporting year, own shares of €350 million were acquired and dividends of €458 million and €170 million respectively were distributed to shareholders of HeidelbergCement AG and non-controlling interests.

Financial liabilities were reduced by €1,116 million to €7,110 million (previous year: 8,226), in particular by the repayment of a bond of €750 million and the repayment of a debt certificate of €361 million. Net debt increased by €533 million to €5,532 million (previous year: 4,999).

As at 31 December 2022, the leverage ratio was 1.48x (previous year: 1.29x).

Total provisions decreased by €449 million to €2,375 million (previous year: 2,824). Pension provisions dropped by €264 million to €735 million (previous year: 999), and other provisions reduced by €185 million to €1,641 million (previous year: 1,825). The decrease is primarily due to higher discount rates. Trade payables increased by €163 million to €3,343 million (previous year: 3,180). The rise results in particular from the sharp increase in the prices of energy and raw materials. At €2,803 million, other liabilities were at the level of the previous year (previous year: 2,821).

Consolidated balance sheet (short form)

€m	31 Dec. 2021	**31 Dec. 2022**	Part of balance sheet total 2022
Assets			
Intangible assets	8,372	8,577	26%
Property, plant, and equipment	13,631	13,660	41%
Financial assets	2,123	2,715	8%
Other non-current assets	1,443	1,184	4%
Inventories	2,211	2,669	8%
Trade receivables	1,837	2,040	6%
Other current assets	4,094	2,410	7%
Balance sheet total	**33,711**	**33,256**	**100%**
Equity and liabilities			
Equity	16,659	17,624	53%
Financial liabilities	8,226	7,110	21%
Pension provisions	999	735	2%
Other provisions	1,825	1,641	5%
Trade payables	3,180	3,343	10%
Other liabilities	2,821	2,803	8%
Balance sheet total	**33,711**	**33,256**	**100%**

Key financial ratios

	2021	**2022**
Assets and capital structure		
Equity/balance sheet total	49.4%	53.0%
Net debt/balance sheet total	14.8%	16.6%
Equity+non current liabilities/fixed assets	110.5%	108.6%
Leverage ratio	1,29x	1,48x
Gearing (net debt/equity)	30.0%	31.4%
Earnings per share		
Earnings per share (€)	8.91	8.45
Profitability[1]		
Return on total assets before taxes[1]	9.2%	7.1%
Return on equity[2]	11.7%	9.8%
Return on revenue[3]	10.4%	8.2%

1) Result before tax from continuing operations+interest expenses/balance sheet total
2) Net income from continuing operations/equity
3) Net income from continuing operations/revenue

Capital efficiency

In the 2022 financial year, ROIC (return on invested capital) was 9.1% (previous year: 9.3%).

The calculation of ROIC is detailed in the following table.

Return on Invested Capital (ROIC)

€m	2021	2022
Result from current operations	2,614	2,476
Adjusted current tax expense on result from current operations	-627	-465
Net operating profit after taxes	**1,987**	**2,010**
Equity (incl. non-controlling interests)	16,659	17,624
Net debt	4,999	5,532
Loans and financial investments	-242	-244
Current interest-bearing receivables	-76	-99
Invested capital	**21,341**	**22,814**
Average invested capital	**21,257**	**22,078**
Return on Invested Capital (ROIC)	**9.3%**	**9.1%**

The adjusted current tax expense is calculated by applying an adjusted tax rate on the result from current operations. The tax rate is determined by taking the current tax expense (excluding the deferred tax expense) of the current financial year and dividing it by the profit before tax adjusted for allowances pursuant to IAS 36.

The invested capital is calculated as the average of the opening balance sheet – which corresponds to the closing balance sheet of the previous year – and the closing balance sheet of the reporting year. The calculation of the opening balance sheet of the invested capital is analogous to the calculation of the invested capital of the closing balance sheet at the end of the respective reporting period.

Group financial management

Financial principles and targets

The aim of financial management at Heidelberg Materials is to ensure the Group's liquidity at all times.

Our external financial flexibility is primarily guaranteed by capital markets and a group of major international banks.

Within the Group the principle of internal financing applies. Financing requirements of subsidiaries are – where possible – covered by internal loan relationships. The Group companies use either liquidity surpluses from other subsidiaries in cash pools or are provided with intra-Group loans from our finance company HeidelbergCement Finance Luxembourg S.A. (HC Finance Luxembourg S.A.) based in Luxembourg or HeidelbergCement AG.

In some cases, the Group Treasury department also supports subsidiaries in obtaining credit lines with local banks in order to accommodate legal, tax, or other conditions. Local financing exists only to a limited extent limited.

The following table shows the repayments of the Group in 2022.

Repayments of the Group

Transaction	Offering date	Duration	Maturity date	Nominal volume	Yield
Amortisation	2016-06-24	7 years	2023-06-30	€m 19.2	1.29%
Amortisation	2019-08-08	10 years	2029-03-30	€m 10.7	1.00%
Repayment	2018-08-09	4 years	2022-05-11	€m 750	0.50%
Repayment	2016-01-20	6 years	2022-01-20	€m 360.5	1.85%

The following tables show the financial liabilities of the Group as at 31 December 2022.

Bonds payable

Issuer (€m)	Nominal volume	Book value	Coupon rate in %	Offering date	Maturity date	ISIN
HeidelbergCement AG	750.0	757.7	2.250	2016-06-03	2024-06-03	XS1425274484
HC Finance Luxembourg S.A.	650.0	651.8	2.500	2020-04-09	2024-10-09	XS2154336338
HeidelbergCement AG	1,000.0	1,008.8	1.500	2016-12-07	2025-02-07	XS1529515584
HC Finance Luxembourg S.A.	1,000.0	1,009.6	1.625	2017-04-04	2026-04-07	XS1589806907
HC Finance Luxembourg S.A.	500.0	500.8	1.500	2017-06-14	2027-06-14	XS1629387462
HC Finance Luxembourg S.A.	750.0	640.2	1.125	2019-07-01	2027-12-01	XS2018637327
HC Finance Luxembourg S.A.	750.0	753.1	1.750	2018-04-24	2028-04-24	XS1810653540
Total		**5,322.0**				

Bank loans

Issuer (€m)	Nominal volume	Book value	Coupon rate in %	Offering date	Maturity date
KfW-promoted loan					
HeidelbergCement AG		9.6	1.290	2023-06-24	2023-06-30
European Investment Bank-promoted loan					
HeidelbergCement AG	180.0	180.5		2018-01-04	2023-01-04
KfW-promoted loan					
HeidelbergCement AG		65.7	1.000	2019-08-08	2029-03-30
Others					
Other Group companies		65.4			
Total		**321.2**			

Other interest-bearing liabilities

Issuer (€m)	Book value
Finance lease liabilities	
HeidelbergCement Group	1,051.1
Derivative financial instruments	
HeidelbergCement Group	236.3
Others	
HeidelbergCement Group	179.4
Total	**1,466.7**

Financing measures

With available excess liquidity, we repaid the debt certificate of €360.5 million at an interest rate of 1.85% as scheduled on 20 January 2022. In addition, a bond of €750 million and a coupon of 0.50% with an initial term ending on 9 August 2022 were repaid early on 11 May 2022.

Our issuance activity in the money market was successful, and we issued a total volume of €4.5 billion via our €2 billion Euro Commercial Paper programme over the course of 2022. At the end of the year, issuance activity under the Euro Commercial Paper programme was gradually reduced in order to limit excess liquidity at the end of the year. As at 31 December 2022, none of the commercial papers issued by HeidelbergCement AG remained outstanding.

The share buybacks under the second tranche of the share buyback programme announced on 9 August 2021 were completed on 15 July 2022. A total of 6,906,281 shares were repurchased for €346.4 million and held as treasury shares. In January 2022, the Managing Board resolved to cancel all shares acquired within the first tranche with a reduction in the subscribed capital (see also Notes item 9.7).

In line with the Group strategy, the focus on sustainability has played an important role in our financing measures in the 2022 financial year. The Sustainability-Linked Financing Framework, published in 2022, sets out the basic guidelines for the issue of various sustainability-linked financial instruments and connects the company's sustainability targets with its financing via defined key performance indicators (KPIs).

In May 2022, Heidelberg Materials supplemented the existing European Medium Term Note (EMTN) programme with sustainability-linked debenture bonds, so that sustainability-linked bonds can be issued in the future. The specific net CO_2 emissions per tonne of cementitious material and the volume of CO_2 emissions avoided through CCUS serve as key performance indicators in accordance with the standards of the Global Cement and Concrete Association (GCCA). The achievement of these KPIs may have an impact on the refinancing costs.

On 15 December, the existing Commercial Paper programme was replaced by a €2 billion Multi-Currency Sustainability Target Commercial Paper programme. Under this programme, sustainability-linked target notes related to the interim target of the Sustainability-Linked Financing Framework can be issued until the end of 2026. The interim target is to reduce specific net CO_2 emissions to 500 kg per tonne of cementitious material by 2026. If this target is not met, Heidelberg Materials will be obliged to make a donation to BirdLife Europe to promote biodiversity, with the amount of the donation depending on the total volume of debt certificates issued by the end of 2026.

The existing syndicated credit line was replaced by a new €2 billion sustainability-linked syndicated credit line on 13 May 2022. It has a contractual term of five years, during which two one-year extension options can be exercised. The sustainable key performance indicators are the specific net CO_2 emissions per tonne of cementitious material and the alternative fuel rate as calculated in accordance with the GHG Protocol Standard. The achievement of these KPIs may have an impact on the credit margin. The facility essentially serves as liquidity back-up and can be used for cash drawdowns as well as for letters of credit and guarantees. As at 31 December, only €147 million had been drawn down. The free credit line thus amounted to €1,853 million at the end of 2022 (see following table).

Credit line

€m	31 Dec. 2022
Syndicated Credit Facility (SFA)	2,000.0
Utilisation (cash)	0.0
Utilisation (guarantee)	147.2
Free credit line	**1,852.8**

To secure additional liquidity, we were also able to conclude a short-term syndicated credit line amounting to €500 million. The contractually agreed term is six months with an extension option for a further six months. This short-term credit line remained unused as at 31 December.

Investment grade rating lifts the restriction on incurring additional debt, provided that the Group's consolidated coverage ratio is below 2, in accordance with the terms and conditions of the bonds.

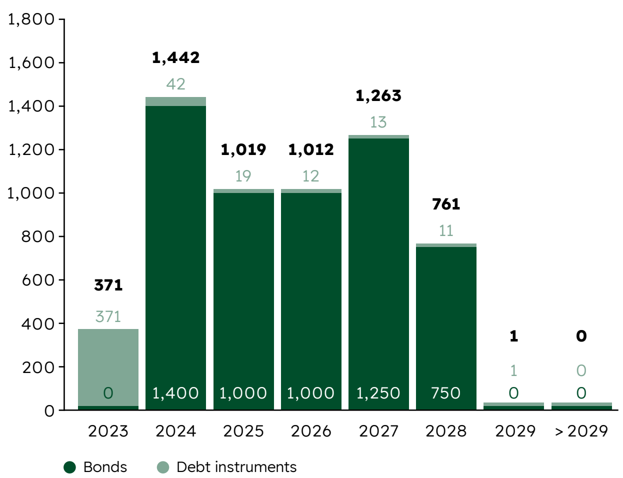
The consolidated EBITDA of €3,703 million and the consolidated interest result of €74 million are calculated on a pro forma basis in accordance with the terms and conditions of the bonds.

Factoring and reverse factoring programmes are also used. The financing volume of the factoring programmes amounted to €864 million (previous year: 715) as at the reporting date. As at the reporting date, there were trade payables of €399 million (previous year: 378) under reverse factoring programmes, which are settled by external payment service providers. These instruments do not lead to a significant concentration of liquidity risk. Furthermore, credit lines and liquidity are maintained for these instruments, so that no liquidity risks can arise if the instruments are discontinued.

Overall, it is ensured that, as at the reporting date, all Group companies have sufficient headroom for cash drawdowns as well as for letters of credit and guarantees to enable them to finance operational business and investments.

Heidelberg Materials has a long-term financing structure and a well-balanced debt maturity profile.

Debt maturity profile as at 31 December 2022[1)] in €m



1) Excluding reconciliation adjustments of liabilities of €-27.4 million (accrued transaction costs, issue prices, fair value adjustments, and purchase price allocation) as well as derivative liabilities of €60 million. Excluding also puttable minorities with a total amount of €76.2 million; excluding financial lease liabilities.

Liquidity instruments

€m	31 Dec. 2022
Cash and cash equivalents	1,454.1
Liquidable financial investments and derivative financial instruments	123.6
Free credit line	1,852.8
Free liquidity	**3,430.5**

Rating

In the 2022 financial year, the company's credit rating by the rating agencies Moody's Investors Service and S&P Global Ratings was unchanged at Baa2 and BBB, respectively. The outlook for our credit rating remains stable.

Ratings as at 31 December 2022

Rating agency	Long-term rating	Outlook	Short-term rating
Moody's Investors Service	Baa2	Stabil	P-2
S&P Global Ratings	BBB	Stabil	A-2

Comparison of the key performance indicators with the 2021 outlook

At the time of preparing last year's consolidated financial statements, the price development on the energy and raw materials markets as a result of the Russia-Ukraine war could not be predicted. The outlook published in the 2021 Annual Report therefore reflected the Managing Board's assessment without taking into account the economic developments in connection with the Russia-Ukraine war. However, the Managing Board already assumed a negative effect on the key performance indicators at that time. After the end of the first six months of 2022, this assessment has been confirmed and the initial outlook for a slight increase in the RCO had to be adjusted in line with the changed conditions. The RCO in the financial year 2022 was €2,476 million and thus in line with the adjusted outlook from the Quarterly Statement January to September 2022.

In line with the forecast, ROIC was 9.1% in 2022. With reference to the figure for the specific net CO_2 emissions 2021 published in the **chapter Non-financial statement in section Climate, energy, and emissions**, specific net CO_2 emissions decreased slightly in line with the forecast.

Comparison of the key performance indicators with the 2021 outlook

Indicator	2021	Outlook 2021 (adjustments during the year)	2022
RCO	€2,614 million	Slight increase (6M: slight decrease 9M: between €2.35–2.55 billion)	€2,476 million (-5.3%)
ROIC	9.3%	Around 9%	9.1%
CO_2 emissions (kg CO_2/t cementitious material)	see chapter Non-financial Statement in section Climate, energy, and emissions	Slight reduction	551 kg CO_2/t cementitious material

Statements on HeidelbergCement AG

In addition to the Group management reporting, the parent company's development is described below. In contrast to the consolidated financial statements, the annual financial statements of HeidelbergCement AG are prepared in accordance with German commercial law. HeidelbergCement AG's management report is combined with that of the Group pursuant to section 315(5) of the German Commercial Code (Handelsgesetzbuch, HGB), as the business trend, economic position, and future opportunities and risks of the parent company are closely linked with the Group on account of their common activity in the building materials business.

As the parent company, HeidelbergCement AG plays the leading role in the Group. It is also operationally active in Germany in the cement business line with eleven cement and grinding plants. The results of HeidelbergCement AG are significantly influenced by its directly and indirectly held subsidiaries and participations. Regarding financing, HeidelbergCement AG plays the key role within the Group. The outlook for the Group also applies to HeidelbergCement AG. Deviations are described below.

Earnings position

Revenue of the cement business line rose by 7.4% to €773 million (previous year: 720) in 2022, despite lower sales volumes due to price factors. Revenue from intra-Group services rose by 15.7% to €251 million (previous year: 217) as a result of extensive tasks in the context of the leading role within the Group and the associated ongoing centralisation of Group functions, the expansion of the range of services offered, and usual price increases. Overall, revenue of HeidelbergCement AG increased by €88 million to €1,025 million (previous year: 937).

Material costs increased by €54 million to €441 million (previous year: 387) compared with 2022. This was attributable in particular to higher costs of energy and raw materials. Personnel costs rose by €10 million to €287 million (previous year: 277) due to annual wage and salary adjustments and a slight increase in the number of employees. Lower performance-related payments and expenditure on restructuring measures had an offsetting effect. Overall, operating result rose by €30 million to €43 million (previous year: 13).

Income from profit transfer agreements of €14 million (previous year: 607) is exclusively attributable to HeidelbergCement International Holding GmbH, whose profit in the previous year was mainly influenced by dividends of its subsidiaries in the amount of €605 million. Result from participations rose to €130 million (previous year: 50) due to higher dividends from subsidiaries.

Other interest and similar income increased significantly by €250 million to €348 million (previous year: 98), mainly due to higher income from interest rate and currency swaps. No impairment losses had to be recognised on financial assets in the financial year. €143 million of the write-downs in the previous year (€144 million) related in particular to the impairment of the participation in Akçansa Çimento Sanayi ve Ticaret A.S., Turkey. The increase in interest and similar expenses of €46 million to €252 million (previous year: 206) is due to the higher interest rate level for bonds and loans from intra-Group financing activities. This was in contrast to lower interest expenses from issued bonds and long-term bank loans, which were reduced to a considerable extent by repayments in the previous year or at the start of the reporting year.

As part of the Group-wide financing and liquidity management measures, currency positions arise that are hedged by means of external foreign exchange transactions, which are appropriate in terms of maturities and amounts. As these hedging transactions do not, as a rule, relate to any valuation units, currency and interest gains or losses may arise. In accordance with the imparity principle, provisions for risks arising from hedging transactions were recognised at the end of the year to the extent of the negative market values of €79 million. The currency result in the 2022 financial year increased to €32 million (previous year: –24).

Expenses for income taxes of €93 million (previous year: 36) relate to adjustments of €3 million (previous year: 27) as a result of a company audit for open assessment periods from 2005 onwards. Net profit for the 2022 financial year amounted to €257 million (previous year: 392), while balance sheet profit was €494 million (previous year: 496).

Balance sheet

The balance sheet total decreased by €1.6 billion compared with the previous year to €25.8 billion (previous year: 27.4).

Total fixed assets remained unchanged from the previous year at €23.2 billion (previous year: 23.2). Current assets decreased by €1.7 billion to €2.6 billion (previous year: 4.3), in particular due to the decrease in receivables from affiliated companies in connection with intra-Group financing measures of €0.4 billion to €2.1 billion (previous year: 2.5), and as a result of the decrease in cash at bank and in hand of €1.3 billion to €0.2 billion (previous year: 1.5).

On the equity and liabilities side, equity fell by a total of €0.6 billion to €11.2 billion (previous year: 11.8) due to the dividend distribution of €0.5 billion and the share buyback programme of €0.3 billion, which were set against a profit for the financial year of €0.3 billion. At €0.9 billion (previous year: 0.9), provisions remained at the previous year's level. Liabilities decreased by €1.2 billion to €13.6 billion (previous year: 14.8). This was mainly due to the reduction in liabilities to affiliated companies of €0.8 billion to €11.4 billion (previous year: 12.2) in connection with intra-Group financial transactions and to the repayment of bank loans in the amount of €0.4 billion.

Comparison of the business trend with the previous year's outlook

The slight increase in cement revenue compared with the previous year as well as the expected moderate rise in intra-Group service charges led to an increase in total revenue, which was higher than the increase in expenditure on materials, personnel, and other operating expenses. This resulted in higher operating result than in the 2021 financial year, while our previous year's forecast had assumed a decline in operating result in 2022.

Anticipated earnings

For 2023, we expect a moderate increase in cement revenue as well as revenue from intra-Group services. Owing to the predicted disproportionate increase in prices for raw materials, consumables, and supplies and a moderate rise in other operating expenses, we anticipate operating result for 2023 to be slightly below the 2022 level.

Additional statements

Statements pursuant to sections 289a and 315a of the German Commercial Code (HGB)

On 31 December 2022, the subscribed share capital of HeidelbergCement AG amounted to €579,275,700. It is divided into 193,091,900 no-par value bearer shares, each with a pro rata amount of €3, which corresponds to a proportionate amount of the subscribed share capital. Each share carries one vote at the Annual General Meeting. All shares carry the same rights and obligations; there are no different classes of shares. The Managing Board knows of no restrictions concerning voting rights or the transfer of shares.

Mr Ludwig Merckle, Ulm, Germany, holds via Spohn Cement Beteiligungen GmbH, Zossen, Germany, a company under his control, 25.08% of the voting rights of shares in the company as well as rights of retransfer from securities lending to a further 2.59% (instruments in the sense of section 38(1)(1) of the German Securities Trading Law (Wertpapierhandelsgesetz, WpHG), together 27.67%, according to the notifications available to the company as at 31 December 2022 in accordance with the WpHG and Market Abuse Regulation Article 19. No bearer of shares has been granted special rights giving power of control.

The company's Managing Board is appointed and discharged by the Supervisory Board. The Articles of Association may be amended by the Annual General Meeting with a simple majority of the share capital represented at the time of voting, except where a greater majority is required by law. Amendments affecting only the wording of the Articles of Association may be made by the Supervisory Board.

Authorised Capital

Authorised Capital exists as at 31 December 2022, which authorises the Managing Board, with the consent of the Supervisory Board, to increase the company's share capital by issuing new shares against cash contributions and/or contributions in kind (Authorised Capital 2020). Under the Authorised Capital 2020, the share capital may be increased by up to a total of €178,500,000 by issuing new no-par value bearer shares on one or more occasions until 3 June 2025. The shareholders must be granted subscription rights. However, the Managing Board is authorised, in certain cases described in more detail in the authorisation, to exclude the subscription rights of shareholders in the case of an increase in return for cash contributions in order to realise residual amounts, to service option or conversion rights, or to issue shares totalling up to 10% of the share capital at a near-market price as well as in the case of a capital increase in return for contributions in kind for the purpose of acquiring companies or in the context of implementing a dividend in kind/dividend option. As at 31 December 2022, the Authorised Capital 2020 had not been used.

Conditional Share Capital

In addition, the Conditional Share Capital described below existed as at 31 December 2022. The share capital was conditionally increased by a further amount of up to €118,800,000, divided into up to 39,600,000 new no-par value bearer shares (Conditional Share Capital 2018). The conditional capital increase serves to back the issuance of option or conversion rights, or option or conversion obligations on HeidelbergCement shares. The conditional capital increase is only carried out insofar as the Managing Board issues warrant or convertible bonds until 8 May 2023 under the authorisation of the Annual General Meeting from 9 May 2018 and the bearers of option or conversion rights make use of their rights. Warrant or convertible bonds may also be issued with option or conversion obligations.

The shareholders generally have a subscription right to newly issued warrant or convertible bonds. The authorisation governs specific cases in which the Managing Board may exclude the subscription right of shareholders to warrant or convertible bonds. As at 31 December 2022, the authorisation to issue warrant or convertible bonds forming the basis of the Conditional Share Capital 2018 had not been used.

A corresponding volume limit as well as the deduction clauses ensure that the sum of all exclusions of subscription rights in the Authorised Capital 2020 and the Conditional Share Capital 2018 will not exceed a limit of 10% of the share capital existing at the time the authorisation to exclude the subscription right comes into force.

Acquisition of own shares

Furthermore, the authorisation to acquire own shares described below existed as at 31 December 2022. The company is authorised to acquire own shares up to the end of 5 May 2026 once or several times, in whole or in partial amounts, up to a total of 10% of the share capital as at 6 May 2021 for any permissible purpose within the scope of the legal restrictions. The authorisation may not be used for the purpose of trading in own shares. At no time may more than 10% of the respective share capital be attributable to the acquired own shares combined with other shares which the company has already acquired and still possesses. The shares may be acquired via the stock exchange or by way of a public purchase offer or by means of a public call for the submission of offers to sell or by issuing rights to sell shares to the shareholders. The own shares acquired on the basis of the authorisation will be used by selling them via the stock exchange or in another suitable manner while ensuring the equal treatment of the shareholders, or for any other purposes permitted by law. Shareholders' subscription rights can be excluded in certain cases. In 2022, the company made partial use of the authorisation since 7 March 2022 and held 6,906,281 treasury shares as at 31 December 2022, corresponding to 3.58% of the share capital. Details on the treasury shares acquired in the 2022 financial year and held as treasury shares are given in the Notes item 9.7.

A list of the company's significant agreements contingent on a change of control resulting from a takeover bid, and a summary of the effects thereof, is provided in the following table, pursuant to sections 289a sentence a no. 8 and 315a(1)(8) of the HGB. Please note that we are disregarding agreements whose potential consequences for the company fall below the thresholds of €50 million in a singular instance or €100 million in the case of several similar agreements, as they will not regularly affect the decision of a potential bidder. These change of control clauses are standard for this industry and type of transaction and have not been agreed with the intention of hindering any takeover bids.

Significant agreements with change of control clauses

Name of agreement/date	Type of contract	Nominal amount €m	Repayment	Type of clause
Syndicated credit and aval agreements and bilateral credit lines				
Syndicated credit facility and aval credit facility of 13 May 2022	Credit and aval credit facility	2,000 [1]	to the extent outstanding by 13 May 2027	(1)
Loan agreement of 4 December 2017	Credit facility	180	to the extent outstanding by 4 January 2023	(1)
Loan agreement of 1 March 2019	Credit agreement	86 [2]	to the extent outstanding by 31 March 2029	(3)
Aval credit facility of 14 November 2019	Aval credit facility	100	to the extent outstanding by 12 January 2024	(1)
Syndicated credit facility of 31 Ocotber 2022	Credit facility	500 [3]	to the extent outstanding by 30 April 2023	(1)
Bonds issued by HeidelbergCement AG				
2.25% bond 2016/2024	Debenture bond	750	to the extent still outstanding by 3 June 2024	(2)
1.5% bond 2016/2025	Debenture bond	1,000	to the extent still outstanding by 7 February 2025	(2)
Bonds issued by HeidelbergCement Finance Luxembourg S.A., guaranteed by HeidelbergCement AG				
2.5% bond 2020/2024	Debenture bond	650	to the extent still outstanding by 9 October 2024	(2)
1.625% bond 2017/2026	Debenture bond	1,000	to the extent still outstanding by 7 April 2026	(2)
1.5% bond 2017/2027	Debenture bond	500	to the extent still outstanding by 14 June 2027	(2)
1.125% bond 2019/2027	Debenture bond	750	to the extent still outstanding by 1 December 2027	(2)
1.75% bond 2018/2028	Debenture bond	750	to the extent still outstanding by 24 April 2028	(2)

1) Of this figure, €147.2 million was outstanding as at 31 December 2022.
2) Of this figure, €65.7 million was outstanding as at 31 December 2022.
3) Of this figure, €0 million was outstanding as at 31 December 2022.

The relevant change of control clauses give the contractual partner or bearer of the bonds the right to immediately accelerate and to demand repayment of the agreement or outstanding loans or debenture bonds in the event of a change in the company's shareholder structure as defined variously below.

The syndicated credit facility and aval credit facility agreement dated 13 May 2022 and the loan agreements dated 4 December 2017, 14 November 2019, and 31 October 2022, all four marked (1) in the type of clause column, as well as the loan agreement of 1 March 2019, marked (3) in the type of clause column, give each creditor the right, in the event of a change of control, to accelerate the loan amount it provided (plus any accrued interest) and to demand repayment accordingly.

A change of control in the sense of clause (1) is deemed to occur when a person or a group of people acting jointly in the sense of section 2(5) of the German Securities Acquisition and Takeover Act (WpÜG) has acquired more than 30% of the shares in the company. Clause (3) applies "in the case of a change in the direct or indirect capital or shareholder structure of HeidelbergCement AG, which leads to a change of control (change of controlling influence)."

The bonds marked (2) in the type of clause column give each bearer of the debenture bond the right, in the event of a change of control as described below, to demand full or partial repayment from the company at the "early repayment amount." The early repayment amount means 101% of the nominal amount plus accrued and unpaid interest up to (but not including) the repayment date defined in the bond terms.

A change of control is deemed to occur when one of the following events takes place:

- The company becomes aware that a person or group of persons acting in concert in the sense of section 2(5) of the WpÜG has become the legal or beneficial owner of more than 30% of the company's voting rights
- The merger of the company with or into a third person or the merger of a third person with or into the company, or the sale of all or substantially all assets (consolidated) of the company to a third person, except in connection with legal transactions, as a result of which (a) in the event of a merger the holders of 100% of the company's voting rights hold at least the majority of the voting rights in the surviving legal entity immediately after such a merger and (b) in the event of the sale of all or substantially all assets, the acquiring legal entity is or becomes a subsidiary of the company and becomes the guarantor for the debenture bonds

Agreements also exist on pension schemes in the United Kingdom, which stipulate that a change of control (not contractually specified) at HeidelbergCement AG must be communicated to the trustees of these pension schemes. If, according to the corresponding regulatory guidelines, a change of control poses a considerable risk to the fulfilment of the pension obligations (Type A Event), the trustees can demand negotiations on the adequacy of the safeguarding of the pension cover and have this reviewed by means of a clearance procedure before the supervisory authority, which may lead to the adjustment of the securities.

Service agreements of members of the Managing Board of HeidelbergCement AG concluded before the publication of the version of the German Corporate Governance Code (GCGC) of 16 December 2019 are governed by the version of the GCGC of 7 February 2017. In accordance with the latter, a commitment to benefits in the event of the early termination of the Managing Board's membership as a result of a change of control is limited to 150% of the severance pay cap. Managing Board agreements concluded since the 2020 financial year are governed by the proposal of the version of the GCGC of 16 December 2019, according to which change of control clauses should no longer be part of Managing Board contracts. The contracts of René Aldach, Dr Nicola Kimm, and Dennis Lentz therefore do not contain change of control clauses. There are no compensation agreements of the company with members of the Managing Board or with employees in the case of a takeover bid.

The other details required pursuant to section 289a and section 315a of the HGB relate to circumstances that do not exist at HeidelbergCement AG.

Events occurring after the close of the 2022 financial year

Information on the events occurring after the close of the 2022 financial year is provided in the Notes item 11.8.

Non-financial statement

About this statement

Pursuant to sections 289b and 315b of the German Commercial Code (HGB), HeidelbergCement AG prepares a combined non-financial statement for the Group (Heidelberg Materials) and HeidelbergCement AG. This statement also contains the information required by the Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investments and amending Regulation (EU) 2019/2088 (hereinafter: Taxonomy Regulation). The company has decided to integrate it into the management report. All statements on basic procedure as well as on responsibility and organisation, processes, policies, targets, and commitments in addition to measures and progress refer to the Group and, where not shown separately, also to the parent company HeidelbergCement AG. The contents of the non-financial statement were not audited in the context of the audit of the annual financial statements and the consolidated financial statements but were subject to an external voluntary audit with limited assurance in accordance with ISAE 3000 (Revised).

Use of frameworks

The material topics were determined in accordance with the European Sustainability Reporting Standards[1] as a supplementary framework for the Corporate Sustainability Reporting Directive, which will apply in the future. The management concepts for the material topics identified in the materiality analysis have been presented in accordance with the GRI Universal Standards 2021.[2]

Business model

Information on Heidelberg Materials' business model and the impact of this business model on non-financial aspects can be found in the **Business model section** in the Fundamentals of the Group chapter.

Relationships with the financial statements

Information on amounts in the consolidated financial statements that are related to the matters addressed in the non-financial statement are explained in detail in the Notes item 9.13.

In connection with the preservation of biodiversity in our quarries, there are provisions for reclamation obligations, which relate to obligations to backfill and restore raw material quarrying sites.

Miscellaneous other provisions exist in particular for other litigation risks, for the obligation to return emission rights, and for compensation obligations to employees arising from occupational accidents.

Materiality analysis

We identified the topics that are relevant for Heidelberg Materials as part of a materiality analysis, which was carried out in 2022 with the involvement of internal and external stakeholder groups.

As part of the analysis, we reviewed the sustainability topics identified in the past with respect to the future regulatory requirements and compared them with the topic series of the 2021 GRI standards as well as other frameworks and industry requirements. The resulting topics were structured and consolidated to pave the way for the next step: drawing up an analysis from a stakeholder perspective.

The methodology employed in the analysis was based on the principle of double materiality. Double materiality incorporates the impact of sustainability topics on business relevance and the impact of entrepreneurial activity on the environment and society. The stakeholders involved in the assessment were presented with both perspectives: the outside-in perspective (the financial influence of external factors on the business activities of Heidelberg Materials) and the inside-out perspective (the influence of Heidelberg Materials on society and the environment).

An online survey and workshops were used to involve stakeholders significant to Heidelberg Materials, including shareholders, employees, investors, customers, suppliers, management, and representatives of associations.

The material topics were derived from the results. These were validated internally and assigned to the non-financial aspects as follows:

- Environmental matters: climate, energy, and emissions; biodiversity; sustainable products and solutions; circular economy.
- Employee-related matters: employees, diversity, equity, and inclusion; occupational health and safety.
- Respect for human rights as well as anti-corruption and bribery matters: compliance.

1) ESRS 1 – General requirements (as at November 2022)

2) GRI 3-3 – Management of material topics 2021

This year, we have also consolidated the cross-aspect topic of responsible procurement in a separate chapter. The Social responsibility chapter, which we had previously assigned to the social matters aspect, is no longer part of the non-financial statement. More details can be found in the **Social responsibility section** in the Sustainability chapter of the Annual Report.

The **section on environmental matters** also includes the information on the objectives of climate change mitigation and climate change adaptation pursuant to Article 8 of the EU Taxonomy Regulation, in compliance with Delegated Regulation 2021/2178.

Identification of risks

Heidelberg Materials' risk structure is diversified because of the decentralised structure of the Group, with around 3,000 locations in more than 50 countries and the largely local supplier framework. This also applies to climate risks in accordance with the definitions of the Task Force on Climate-related Financial Disclosures (TCFD), which are linked to the Group's own business activity, business relationships, products, or services. Climate risks are reported in the **Risk and opportunity report**. Further aspects and recommendations of the TCFD on climate reporting are covered in the **Additional information chapter**. Heidelberg Materials has not identified any other significant non-financial risks connected with its own business activity, business relationships, products, or services that are highly likely to have a serious negative impact on the above-mentioned non-financial aspects and own business development.

Procurement management

Procurement at Heidelberg Materials

Our category leader organisation facilitates the procurement of important commodity groups at Group level. We bundle process-critical goods and services, usually with high volumes, into commodity groups in order to obtain better terms and conditions from our suppliers. The tasks of the category leaders within the Group include conducting price negotiations, concluding framework agreements, supplier management, and observing current market and price developments.

The second component of procurement management is the local purchasing at our production sites. The local purchasing departments also obtain goods and services directly via the Group framework agreements. In this way, we combine the advantages of central and local procurement.

In the reporting year, Heidelberg Materials procured goods and services with a total value of €15,004 million. This corresponds to 71.1% of total revenue.

Our plants collaborate closely with local suppliers and service providers. We invest around 90% of our procurement volume in the areas immediately surrounding our plants or within the respective country (this value is based on an analysis in the countries that use our central SAP system and relates to 50% of the annual global procurement volume).

Heidelberg Materials pursues a strategy for the procurement of fuels and electricity that is based on a combination of short-term, index-based contracts and fixed-price contracts. Heidelberg Materials also continuously optimises the fuel mix subject to market price fluctuations.

Responsible procurement

Heidelberg Materials strives to ensure compliance with sustainability standards in the supply chain. To this end, plans are in place to systematically screen the supplier base for ESG risks and to initiate mitigation measures where necessary. The required activities will be established within the country procurement organisations from 2023. Progress in implementing risk analysis and measures will then be incorporated into the reporting prepared by the Group Procurement department.

Group-wide purchasing guidelines provide clear instructions regarding our supplier relations and purchasing activities. The most important tool used for this purpose is our Supplier Code of Conduct, which we communicate to our global and local suppliers so that they accept the principles defined in the Code and follow the guidelines. The Code incorporates the key elements of the SA 8000 International Social Accountability Standard, the ISO 14001 international environmental standard, and the principles of the International Labour Organization (ILO).

The Supplier Code of Conduct has already been revised to reflect the requirements of the German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz, LkSG), which will apply from the 2023 reporting year.

The defined standards are monitored and enforced with the help of our partners Avetta and IntegrityNext. In this way, Heidelberg Materials strives to ensure fair, responsible, and secure procurement processes as well as good cooperation along its entire supply chain.

In addition to our focus on human rights, our vision for a sustainable supply chain includes, among other things, calling upon our suppliers to commit to reducing greenhouse gases. Since the end of 2021, we have been proactively communicating this message in various ways, including at meetings with suppliers and through initiatives such as virtual supplier days on the topic of sustainability. These ambitions, which extend beyond the Supplier Code of Conduct, are also published on the **Heidelberg Materials website**.

The topic of responsible procurement is the responsibility of the Group Procurement department, which reports to the Chief Financial Officer. An internal working group, which is made up of occupational safety, compliance, and ESG (environmental, social, and governance) experts as well as procurement staff, meets regularly to further develop existing approaches to responsible procurement, ensure that they are firmly anchored in the organisation, and respond to changing requirements. These activities are brought together in the Responsible Procurement initiative.

Cooperation with our suppliers

We work with our partners Avetta and IntegrityNext to ensure that our suppliers are reliably and responsibly qualified. On behalf of Heidelberg Materials, the two partners collect information about suppliers in relation to ESG criteria such as respect for human rights, environmental standards, and compliance.

Our process consists of two main steps: identifying critical suppliers and increasing transparency by means of sustainability questionnaires.

- Critical suppliers are identified on the basis of available information on country, material category, and revenue.

- Sustainability questionnaires for suppliers are the foundation of our assessments. The questions they contain are based on the principles of the UN Global Compact and the fundamentals of the German LkSG. To ensure that both global and local requirements concerning human rights and environmental regulations are met, we require our suppliers to provide clear answers that can be verified by Heidelberg Materials if necessary.

In the event that a supplier does not comply with our sustainability standards, we will endeavour to work closely with the supplier to remedy the shortcomings, but if all corrective actions fail, we must terminate the contractual relationship.

The Responsible Procurement initiative, launched in 2021, aims to raise awareness of sustainability issues across our global supplier base. Our SAP Ariba supplier management system is now available in all Group countries. All suppliers who register on the platform commit themselves to comply with our Supplier Code of Conduct. With SAP Ariba Risk, a system for global risk assessment has also been selected. Ariba Risk makes it possible to evaluate the ESG risks of each supplier based on their country of origin and the goods or services supplied. The system also supports buyers by notifying them of negative reporting about specific suppliers, for example in the event of compliance problems. In addition, the findings of the risk assessments carried out by our partners Avetta and IntegrityNext shall be made available in Ariba Risk in the future.

Sustainability priorities in our supply chain

Sustainability in the supply chain is important to Heidelberg Materials. In our work to minimise risks, we focus on areas such as environmental protection, occupational health and safety, compliance, and human rights.

Environmental protection
Heidelberg Materials requires its suppliers to comply with all applicable laws and regulations pertaining to environmental standards. For example, suppliers must systematically control their environmental impacts with regard to emissions, energy, water, waste, and biodiversity and avoid, minimise, or compensate for any such impacts, including environmental impacts related to the access to food, drinking water, and sanitation or health. In addition, suppliers are expected to commit to implementing appropriate environmental measures and to continuously improving their environmental performance, among other things, via the Supplier Code of Conduct.

Suppliers are asked to promote the safe and environmentally responsible procurement, manufacture, transport, distribution, use, and disposal of their products and services. We require suppliers to comply with all applicable local, national, and international laws relating to land, water, and resources and to adhere to the appropriate standards when handling mercury, chemicals, and hazardous waste, among other things.

We set ourselves ambitious targets for reducing environmental impacts in the supply chain. For example, we joined the First Movers Coalition in May 2022. As part of our membership, Heidelberg Materials has committed to the sector ambition for trucking, aiming for 30% of the company's purchases of heavy-duty trucks and 100% of our medium-duty truck purchases to be zero-emission vehicles by 2030. We are also developing approaches and measures to reduce the purchased emissions of our most important raw materials.

Occupational health and safety
We expect our service providers to ensure they offer safe and healthy working conditions that meet or exceed the applicable occupational health and safety standards. Suppliers are required to implement and continuously improve appropriate measures and procedures and to provide safety equipment. This is documented in our Supplier Code of Conduct and also includes, at a minimum, compliance with the laws and regulations in force in the respective country as well as proof of the necessary permissions, licences, and authorisations. In addition, as part of our Group policy on occupational health and safety, we have defined a set of cardinal rules that are mandatory for all employees and contractors (see **Occupational health and safety section**).

Compliance and human rights
Our SpeakUp compliance hotline provides a way to report any illegal activities or violations of internationally applicable conventions. The commitment to human rights aspects in the business context, such as the prohibition of child and forced labour, fair and safe work conditions, freedom of association, and a ban on discrimination, is a central selection criterion for suppliers. For example, no supplier can participate in a tender on our online tender platform without agreeing to our Supplier Code of Conduct (see **Compliance section**).

Environmental responsibility

Climate, energy, and emissions

The 2015 Paris Agreement aims to limit global warming to 1.5°C compared with pre-industrial levels. Since a consensus was reached at the 26th UN Climate Change Conference at the end of 2021, the focus is now on implementation. To achieve the target, greenhouse gas emissions need to be significantly reduced over the coming years. In some regions of the world, including the EU, there are emissions trading systems for this purpose. A cap is placed on the total volume of specific greenhouse gas emissions and steadily reduced over time.

The direct CO_2 emissions arising in the energy-intensive production of cement during clinker production in cement kilns are a fundamental challenge for us as building materials manufacturer. These process emissions have been technologically unavoidable up to now. That is why we are working intensively, among other things, to reduce our carbon footprint by closing the carbon loop and to develop cements with a reduced clinker content. For various locations, we are also evaluating the use of alternative cement components, such as natural pozzolans or calcined clays.

Within the framework of our Group strategy, we are significantly advancing our ambitious climate targets. In May 2022, we again substantially tightened our emission reduction target. We want to achieve this by optimising the product mix and making process improvements, such as maximising the use of alternative fuels, switching to electricity from renewable energy sources, or investing in plant efficiency. Through our investments towards a circular economy, which we are already implementing today, we also aim to make a decisive contribution to the long-term reduction of CO_2 emissions. CCUS – carbon capture, utilisation, and storage – is another key component of our climate strategy.

In addition to CO_2 emissions, cement production also emits dust and air pollutants such as sulphur oxides (SO_x) and nitrogen oxides (NO_x). We monitor emissions of air pollutants on an ongoing basis. We strive to reduce pollutants by using new filter technologies and innovative production processes, thus mitigating the impact of our activities on the environment and neighbouring communities.

Targets and commitments
We accept our share of the global responsibility to limit the rise in worldwide temperature to 1.5°C. Our reduction targets are based on calculations according to the guidelines of the Global Cement and Concrete Association (GCCA). They were reviewed, validated and recognised as science-based by the Science Based Targets initiative (SBTi), using their methodology, at the end of February 2023.

Our target is to reduce our specific Scope 1 CO_2 emissions by 24% by 2030 compared with 2020. We have also committed to reduce Scope 2 CO_2 emissions – indirect emissions from purchased energy – by 65% between 2020 and 2030. Combined across these two scopes, this results in a 26.7% reduction over this period. As part of the SBTi validation, we have also set ourselves the target to reduce our Scope 3 CO_2 emissions from purchased goods and services[3)] by 25% by 2030 compared to 2020. These commitments are in line with Heidelberg Materials' previously communicated target to reduce specific net CO_2 emissions to 400 kg per tonne of cementitious material by 2030, a 47%

3) Refers to purchased cement and clinker

reduction compared to 1990[5] levels. We aim to achieve net zero emissions[4] by 2050 at the latest.

To reduce our carbon footprint, we will, for instance, increase the proportion of alternative fuels in the fuel mix to 45% by 2030. At the same time, we plan to further intensify our use of alternative raw materials in order to decrease the clinker ratio – i.e. the proportion of clinker in cement. By 2030, we intend to reduce the ratio to an average of 68%. By using waste materials and by-products from other industries as alternative raw materials and fuels, we also promote the circular economy (see **Circular economy section**).

In addition, we aim to reduce the specific SO_x and NO_x emissions per tonne of clinker generated in our cement production by 40% by 2030 and the specific dust emissions per tonne of clinker by 80% in comparison with 2008[5].

Responsibility and organisation
Environmental protection is an integral element of Heidelberg Materials' business strategy. Responsibility for sustainability at Managing Board level lies with the Chief Sustainability Officer (CSO). The CSO heads various internal working groups that deal with the different areas of focus of sustainability at Heidelberg Materials. The working groups include experts from the various areas of focus. The task of the working groups is to accelerate the progress of operating activities with regard to sustainability and position Heidelberg Materials as a company with clearly defined sustainability targets, as formulated in the Sustainability Commitments 2030, for example.

The Supervisory Board addresses different topics connected with sustainability and environmental protection on a regular basis. Since 2021, a CO_2 component has linked the reduction of CO_2 footprint to the remuneration of the Managing Board and every bonus-eligible employee (see **Remuneration report chapter**).

The Group departments of the Sustainability Office, which reports to the CSO, support future-oriented sustainability activities at Group level in a number of ways. These include defining guidelines and targets, supporting the operating units in the practical implementation of these guidelines and targets, identifying and disseminating improvement measures for achieving the sustainability targets, and coordinating action plans to implement research projects.

At country level, we have developed the ESG governance structures and appointed an ESG coordinator for each country. ESG coordinators are also in place for the Group areas in order to support those responsible in the various countries.

The topic of energy is managed centrally by the Group Energy Procurement department, which supports the local business units in the procurement of alternative fuels or the implementation of projects to generate their own energy. To this end, there are working groups within the Group that develop the Group-wide strategy, monitor progress, and promote knowledge transfer.

As Heidelberg Materials has a decentralised structure, the individual country organisations take responsibility for all areas of the operating activities, including compliance with legal provisions and regulatory conditions. This also covers the correct recording and transmission of all necessary production, operating, consumption, and emissions data that Heidelberg Materials is obligated to provide by law or by regulations, or has committed itself to providing voluntarily. In principle, the site management is essentially responsible for environmental protection management at their respective plant.

The internal monitoring of all operating data relevant to the environment is carried out by the competence centers of the business lines. Before publication, the data is also checked by the Group ESG department.

Policies
Environmental responsibility is an integral part of our Group strategy. Our Sustainability Commitments 2030, guidelines such as our Climate Policy, and our Code of Business Conduct demonstrate the great importance of environmental protection for the sustainable development of Heidelberg Materials' business activities.

All countries in which we operate production facilities impose legal limits for most emissions of air pollutants in order to prevent any negative impact on the environment or the population. Failure to comply with the legal regulations could result in us losing our operating licence or jeopardise the renewal of our mining concessions.

Processes
The internal working groups, such as the climate strategy working group, analyse the progress of the operating activities with regard to achieving targets, report on the status of research projects and research cooperation arrangements, and discuss further research measures in order to prepare decisions. In addition, the Managing Board is informed in detail several times a year about the research results and plans for new research projects.

In the reporting year, measures to reduce CO_2 emissions were defined for all fully consolidated clinker and cement plants. The same also applies to our joint ventures in Bosnia-Herzegovina, Georgia, and Hungary.

4) According to SBTi definition.
5) The reference values for the base years 1990 and 2008 are not included in the external voluntary audit to obtain limited assurance.

All relevant information on CO_2 and air pollutant emissions is recorded in our integrated reporting system on a monthly basis. This offers the possibility of viewing the CO_2 and air pollutant emissions at any time. In addition, the Managing Board and senior management are informed by reports consolidated at Group level.

We have established control mechanisms to verify that we are achieving our reduction targets for CO_2 emissions. The competence centers are responsible for providing the specialist advice and monitoring required in this area. As well as receiving monthly reports, the Managing Board also regularly checks the progress made towards achieving our targets during on-site visits.

The Group Energy Procurement department constantly reviews new activities in numerous Group countries in order, among other things, to further expand the proportion of green electricity in the coming years.

Measures and progress

By continuously improving the energy efficiency of our plants, steadily increasing the use of alternative fuels, and further decreasing the proportion of the energy-intensive intermediate product clinker in our cements, we intend to reduce the specific CO_2 emissions of our products.

In view of the enormous challenge posed by the almost inevitable process emissions from cement production, our industry must find new solutions to protect the climate. Heidelberg Materials therefore particularly invests in studies into innovative carbon capture and utilisation techniques: with the help of various technologies, we are working towards capturing CO_2 in its purest form in order to either utilise or safely store it (CCUS). Cement and concrete companies can also support the circular economy through resource efficiency, co-processing of waste materials, and concrete recycling, including its technical carbonation (see **Circular economy section**). We test a variety of minerals for CO_2 absorption and the possibility of using them to produce marketable building materials.

We further expanded our portfolio of carbon capture initiatives in 2022 and have now launched nine major CCUS projects, which are scheduled to go into operation progressively from 2024. In 2022, the CCUS project at our plant in Devnya, Bulgaria, was selected to receive support from the EU Innovation Fund, a European financing programme for industrial decarbonisation. The first industrial-scale CCUS project in North America will be built at our cement plant in Edmonton, Canada, and is scheduled to go into operation in 2026. The cement plant in Mitchell, USA, will capture 95% of the CO_2 emissions from the modernised production facility and store them in a nearby onshore reservoir (see **Research and development section**).

In 2022, we again increased the proportion of alternative fuels in the overall fuel mix. This predominantly relates to residues and waste that would be uneconomical to recycle or cannot be recycled by any other means, such as processed household waste or biomass (e.g. dried sewage sludge or rice husks in Asia), as well as industrial by-products and waste products. Globally, Heidelberg Materials is implementing numerous projects aimed at further expanding the proportion of alternative fuels. For example, a new conveyor system is currently being constructed at our cement plant in Edmonton, which will facilitate the use of alternative fuels from 2023. With the help of this modernisation measure, we anticipate substituting up to 50% of fossil energy sources in the future. New feeding and dosing systems are also currently being installed in our African plants, such as in Togo and Tanzania, so that they can use climate-neutral biomass fuels derived from agricultural waste.

The Group Energy Procurement department constantly reviews new activities in numerous Group countries in order to further expand the proportion of green electricity in the coming years. These activities include investments in our own facilities for the generation of green electricity as well as long-term power purchase agreements (PPA) to secure the supply of electricity from renewable energies. We are also implementing energy efficiency measures to reduce electricity consumption and generate electricity from waste heat. In 2022, Heidelberg Materials signed agreements with pilot projects in various Group areas for an extra 100 MW of renewable energy generation from wind and solar – with 280 GWh of total electricity production expected per year. Some of these additional projects have already produced green electricity for Heidelberg Materials in 2022.

In the 2022 reporting year, various measures to further reduce emissions were also implemented. In Asia, for example, the Guangzhou plant in China reduced noise pollution created by a clinker cooler, and a fabric filter was fitted to a fly ash silo at the plant in Chennai, India. In Europe, our Padeswood plant in the United Kingdom commissioned a bypass system, which has made it possible to increase the use of alternative fuels. An evaporative cooler went into operation at the Deva cement plant in Romania. At our Delta plant in Canada, we installed a selective non-catalytic reduction (SNCR) system to reduce NO_x emissions.

Performance indicators

In the 2022 financial year, Heidelberg Materials was able to reduce its specific net CO_2 emissions by a further 2.4% to 551 (previous year: 565) kg CO_2/t of cementitious material. This corresponds to a reduction of almost 27% compared with the base year 1990[6] and more than 4% compared to 2020. We achieved a further increase in the proportion of alternative fuels, while at the same time working to raise the efficiency of our kiln lines. The clinker ratio was reduced by 1.3 percentage points. Especially in regions with high clinker ratios, an improvement was achieved by optimising the product portfolio.

Climate protection

	2020	2021	**2022**
Specific net CO_2 emissions (kg CO_2/t cementitious material)	576	565	551
Alternative fuel rate	25.7%	26.4%	28.7%
Clinker ratio	74.3%	72.9%	71.6%

The specific SO_X and NO_X emissions have increased slightly. One reason for this is the increase in continuous emission measurement for NO_X and SO_X. Heidelberg Materials now records 90% (previous year: 86%) of the emissions continuously. This type of emission measurement achieves a higher accuracy and also records emission peaks better than individual emission measurements. Compared to the base year 2008, we achieved a 31% reduction in specific SO_X emissions and a 21% reduction in NO_X emissions.

With the ongoing modernisation of our filter systems, we have significantly reduced specific dust emissions compared to the previous year, resulting in a reduction of 91% compared to the base year 2008[6].

Emission of air pollutants

	2020	2021	**2022**
Specific NO_X emissions (g/t clinker)	1,230	1,235	1,249
Specific SO_X emissions (g/t clinker)	321	333	349
Specific dust emissions (g/t clinker)	36	39	28

Biodiversity

Heidelberg Materials operates extraction sites worldwide, resulting in temporary changes in land use and both positive and negative impacts on a variety of locally specific habitats and species. Disturbance to the surrounding environment is inevitable during the opening or extension of an extraction area. To ensure that this impact is kept to a minimum, operations are planned and implemented in line with the successive steps of the mitigation hierarchy. We want to reduce, neutralise, or even overcompensate the impacts of our activities. We work to conserve habitats and species throughout the life cycle of our mining sites. Even during the extraction phase at an operational site, we can create favourable conditions for threatened species that resemble the early stages of ecological succession, for example temporary or permanent wetlands, mosaics of bare ground and colonising vegetation, and sandy banks or rock faces for cliff-nesting species. Through the reclamation process, we are also able to create new habitats, such as wetlands and species-rich grasslands, and integrate biodiversity features into different forms of subsequent use. Notable species, such as the black-browed babbler in Indonesia (a bird not sighted for 170 years), a highly endangered tree species in Ghana (Talbotiella gentii), and the critically endangered swift parrot in Australia, have been observed accepting our biodiversity promotion measures and co-existing alongside quarrying activities.

We only extract deposits if this can be carried out in an environmentally and socially responsible manner. Before making any decision concerning the development of a new quarry or the expansion of an existing one, first an extensive approval process in line with the corresponding laws and regulations must be made. Our sites are operated in accordance with relevant international, national, and local environmental legislation, and environmental impact assessments are generally

6) The reference values for the base years 1990 and 2008 are not included in the external voluntary audit to obtain limited assurance..

prepared as a prerequisite for the approval of quarrying activities.

Targets and commitments

Because we recognise the ecological value of temporary nature, we have committed to reserving 15% of the land at 100% of our active extraction sites for nature by 2030. In this way, we want to ensure that species can thrive alongside our active operations. Temporary nature refers to the spontaneous development of vegetation within a quarry and its colonisation by appropriate species. These habitats may only exist for a few years due to expansion or reclamation, but they then re-emerge in other suitable locations on the site. In 2023, we will record the current proportion of land reserved for nature in our quarries as a basis for measuring future developments.

Another target is to reduce our ecological footprint and contribute to the conservation and development of habitats and biodiversity features throughout the life cycle of our quarries. This includes operating all our quarrying sites on the basis of an after-use plan agreed together with local authorities according to the needs of the respective communities. We have pledged to raise the proportion of quarries with after-use plans to 100% by 2030 at the latest. We also plan to integrate recommendations for the promotion of biodiversity into every new after-use plan. In this way, we manage our impact on biodiversity in line with the sequential steps of the mitigation hierarchy: avoid, minimise, and mitigate.

In addition, we want to implement biodiversity management plans at all locations within one kilometre of a recognised area of high biodiversity value.[7] The aim is to put this measure into action at 100% of our quarries by 2025 and at 100% of our non-extraction sites by 2030. To further understand our environmental impacts, we plan to undertake net impact assessments at all our extraction sites based on the reclamation plans approved by the local administration.

Responsibility and organisation

The topic of biodiversity is assigned to the Group ESG department. This is part of the Sustainability Office headed by the Chief Sustainability Officer (CSO).

The internal Biodiversity Expert Group meets with representatives from across the Group on a quarterly basis to share best practices, develop common guidelines, discuss changes to legal requirements, and participate in training given by external experts.

Policies and processes

Transferring knowledge, both internally and externally, is an important part of the strategy as it underpins the operation of the quarries and helps to ensure that the topic of biodiversity is given full consideration in the Group. A Biodiversity Handbook tailored to the circumstances in the individual Group areas helps the locations to create and preserve natural habitats, develop projects with external stakeholders, and manage invasive species at the quarries. Heidelberg Materials has formulated ten biodiversity principles, which are set out in the Biodiversity Handbook. The purpose of these principles is to guide those responsible on site on how to manage nature, make responsible decisions, and involve external stakeholders. In addition, we subscribe to the Integrated Biodiversity Assessment Tool (IBAT), which provides decision makers with up-to-date information on biodiversity.

In 2022, we published a Biodiversity Policy, which contains seven key elements that shape how we interact with nature. The points help us understand what our impact is as well as how we can minimise any negative outcomes and support positive actions to increase biodiversity in and around our locations, including through partnerships with, for example, NGOs and universities, such as our global partner BirdLife International and its local country-specific partners, IUCN, Kings Park and Botanic Garden (Perth, Australia), and the University of South Bohemia. In order to understand and mitigate our impacts, a study is carried out every three years to determine the proximity of our operational sites to biodiversity-sensitive areas.

In support of the global agenda for nature's recovery and as a contribution to the UN Decade on Ecosystem Restoration, Heidelberg Materials plans to include biodiversity measures in all reclamation plans and report annually on the land reclaimed by the company. Reclamation plans like these are an integral part of local authority approval processes, setting the targets and timetables for the reclamation of mining sites. Even while a quarry is still in operation, we apply a policy of reclaiming those areas of the quarry that are no longer used, unless there are exceptional circumstances.

In cooperation with our partner, BirdLife International, we have been collecting and analysing information about the biodiversity value of our quarries for more than ten years. We now cover all our active quarries. In the process, we collect data about the proportion of quarries in areas with a high level of biodiversity and for which biodiversity management plans are being implemented.

7) Areas of recognised high biodiversity value pursuant to GRI 304-1 definition.

Measures and progress
For environmental and economic reasons, we strive to limit land consumption when planning our quarrying and reclamation activities. Our fundamental aim is to maximise the extraction of reserves and resources at all of our operational sites, while keeping adverse impacts to a minimum.

As early as 2010, we began to collect and analyse information about the biodiversity value of our quarries. We are steadily extending biodiversity monitoring to more and more quarries, a process that involves assessing net impact by comparing a site's ecological value before and after extraction based on its reclamation plan.

The fifth edition of the Quarry Life Award, Heidelberg Materials' nature-based research and education competition, was concluded in 2022. Throughout the year, more than 70 projects were undertaken across 16 countries, focusing on the protection and better management of biodiversity in quarries and sharing that knowledge with local communities. Winning projects were recognised at national level, and seven outstanding projects were showcased at an international ceremony in October. The event, which took place as part of the European Business and Nature Summit, celebrated the success of the fifth edition and the tenth anniversary of the competition with many external supporters from business, NGOs, and politics. Heidelberg Materials now aims to use the projects as a basis for developing best practices and innovative ideas for the management of extraction sites, which it will share across the Group via the Biodiversity Expert Group.

Our partnership with BirdLife International continued through 2022, with a particular focus on joint advocacy for the EU Nature Restoration Law, the proposal for which was submitted in June 2022. Understanding the strong economic need for a healthy environment, Heidelberg Materials worked alongside associations from the non-energy extractive sector to provide a strong business voice in favour of such a law. We also supported the Business for Nature campaign, which calls on governments to introduce mandatory requirements for large companies to assess and disclose their impacts and dependencies on nature by 2030.

Key performance indicators
In 2022, the proportion of quarries located near an area of high biodiversity value that have a biodiversity management plan increased from 43% to 51%. We were able to record increases mainly in North America and Australia. Also due to the improved database, the share of quarries with an after-use plan could be increased to 92% (previous year: 87%).

Biodiversity indicators[1)]

	2020	2021	2022
Proportion of quarries located near an area of high biodiversity value with biodiversity management plan	54%	43%[2)]	51%
Proportion of quarries with an after-use plan (%)	80%	87%	92%

1) Including joint ventures
2) Value adjusted due to changes in the underlying data

Sustainable products and solutions

Sustainable construction is made possible to a large extent by the use of sustainable building materials. The teams at our research centers work intensively on innovative, environmentally and socially responsible products that are designed to help buildings to be more sustainable over their life cycle (see **Research and development section**). Examples of these products include cements and concretes with improved carbon footprints, as well as building materials with characteristics that support the use of less material and enable society to implement more climate-friendly solutions. For example, the high heat absorption capacity of concrete means that ceilings and walls can be used for cold or heat storage, thereby significantly reducing energy consumption for air conditioning and heating. Using by-products and waste materials from other industrial sectors, including coal fly ash from energy generation, in many of our alternative products, such as composite cements, also allows us to make an active contribution to the circular economy (see **Circular economy section**).

The sustainability of our cement and concrete products is measured by their contribution to the reduction of CO_2 emissions. Our sustainability strategy defines sustainable cement and concrete by a reduction in CO_2 emissions of at least 30% compared with the global reference values from 2020. The reduction of 30% corresponds to a rounded threshold value of 552 kg CO_2/t cement and for concrete 5.5 kg $CO_2/(m^3xMPa)$. The sustainability of our aggregates and asphalt products is measured by their contribution to the circular economy. Sustainable aggregates and sustainable asphalt are defined by having a recycled content of at least 30%.

We are also working to develop and implement applications and technologies that support our sustainability targets. Examples include photocatalytic products for cleaning exhaust gases, drainage concrete to help regulate rainwater run-off, concrete for thermal energy storage, and ultra-high-performance concrete for infrastructure maintenance measures. As a service, we provide our customers with the knowledge required to use our products correctly.

Targets and commitments

Sustainable building materials with the smallest possible carbon footprint and a high circularity potential are playing an increasingly important role for us and our customers. We are investing in research and development for innovative carbon-reduced and material-efficient production technologies and products. We are driving forward a portfolio of sustainable products in every Group country and have set ourselves the target of being able to offer a circular alternative for at least half of our concrete products by 2030 (see **Circular economy section**).

As a measure of our increased focus on the production and distribution of sustainable building materials, we have begun reporting on the revenue generated with these products in the 2022 reporting year.[8] We aim to generate 50% of our Group revenue from carbon-reduced and circular products and solutions by 2030.

Responsibility and organisation

In dialogue with our customers, the responsible Commercial Directors in the Group countries explore the need for new sustainable products for their respective markets and drive their development and distribution along the entire value chain. The development of these products is often supported by the Group's central Research and Development department.

The topic of sustainable products and applications is assigned to the Group ESG department. This is part of the Sustainability Office headed by the Chief Sustainability Officer (CSO). An internal working group, which is made up of employees from the Group ESG department as well as experts from other staff functions and the national organisations, meets regularly to further develop existing concepts for sustainable products, ensure that they are firmly anchored in the organisation, and respond to changing requirements. These activities are brought together in the Sustainable Revenue programme.

Policies and processes

Our products comply with current local product standards, such as EN 197-1 for cements and EN 206 for concrete in Europe. In future, our sustainable products will be classified in accordance with internal reporting guidelines.

As a founding member of the Concrete Sustainability Council (CSC), we are involved in the ongoing development of a certification system for sustainably produced concrete. The CSC certificate attests to a company's environmentally, socially, and economically responsible production methods, also taking into account the entire value chain. With the certification of concrete and its production chain, we anticipate greater social acceptance of the product and of the entire industry. Further developments of the CSC certification system include the CSC CO_2 Module specifically for carbon-reduced concretes and the fundamental revision of the CSC R Module for concretes with a defined recycled content. In developing the modules, the CSC intends to continue increasing the transparency of sustainable activities within the cement and concrete industry. Obtaining certification for these modules offers Heidelberg Materials the opportunity to have carbon-reduced concretes and concretes with an increased recycled content endorsed with an external, internationally recognised label.

We are also involved in Green Building Councils (such as Deutsche Gesellschaft für nachhaltiges Bauen, DGNB) and Infrastructure Sustainability Councils (such as the Australian ISCA) in order to advance the development of sustainable products together with our customers.

Measures and progress

Thanks to the use of by-products from other industrial sectors for the production of clinker and cement or the recycling of demolition concrete, we are able to manufacture cement and concrete in a more resource-efficient way and with lower CO_2 emissions. For several of our products, we have developed Environmental Product Declarations (EPDs), which are externally verified and provide information on the carbon footprint of those products. Product-specific EPDs can therefore be used to produce accurate life cycle assessments for buildings, and they can help buildings achieve higher scores when it comes to green building labels such as LEED or DGNB certification.

8) Revenue that we allocate here to our sustainable products are not aligned with the definitions of the EU Taxonomy Regulation.

A significant part of our research and development work is aimed at developing new cement and concrete formulations in order to minimise energy consumption and CO_2 emissions, and thereby also reduce our environmental impact and costs (see **Research and development section**).

In 2022, ready-mixed concrete plants in Germany, Belgium, Italy, Poland, Sweden, and Turkey obtained CSC certification. In addition, the CSC R-Module was awarded to ready-mixed concrete plants in Germany and the Netherlands, and the CSC CO_2-Module was also awarded in Germany.

Through our engagement in various initiatives and associations, we want to promote and accelerate developments in the area of sustainable construction and market transformation. We continued our active involvement in the DGNB in 2022 and as an official partner in the European Network (ERN) of the World Green Building Council. Through our participation in relevant committees, such as the DGNB's Construction Products Advisory Council and the ERN's Building Life Implementation Task Force, we provide support on issues specifically relating to building materials in the DGNB certification system for buildings or in connection with the ERN's positioning on issues concerning building materials.

We have also strengthened our engagement in various national Green Building Councils, the European Construction Technology Platform, and other associations by providing personal resources to support and accelerate developments in sustainable construction and the associated market transformation.

Performance indicators
In 2022, the programme to increase revenue of sustainable products and solutions was introduced and data was collected retrospectively for 2020 and 2021. The share of revenue from sustainable products and solutions increased to 34% in 2022 (previous year: 31%). This was mainly due to increases in revenue of sustainable cements realised through portfolio adjustments in emerging markets and some developed markets.

Share of sustainable products and solutions

	2020	2021	2022
Share of revenue[1), 2), 3), 4)]	28%	31%	34%

1) Refers to the cement (cementitious material), aggregates (in North America and Australia), ready-mixed concrete and asphalt business lines.
2) Revenue that we allocate to our sustainable products are not aligned with the definitions of the EU taxonomy regulation.
3) The system does not yet record all relevant revenue for this figure at product level. We are working on continuously improving data collection over the next few years. The revenue shares shown here therefore only refer to the revenue that has already been measured (about 75% of total revenue).
4) The underlying survey method of the specific gross emissions of the individual cement types was slightly adjusted in 2022 compared with previous years. However, this has only a negligible impact on the reported sustainable revenue in 2022.

Circular economy

Through our investments in the circular economy, which we are already implementing today, we also aim to make a decisive contribution to preserving finite resources by reducing materials as well as reusing and recycling concrete and aggregates. In the long term, this can also help reducing CO_2 emissions.

Among other things, we are working to reduce our carbon footprint by closing the carbon loop, develop cements with a reduced clinker content, and devise innovative recycling technologies that allow waste concrete to be fully reused in fresh concrete. Our attention is focused on the life cycle of concrete – including how demolition concrete is processed and returned to the construction cycle.

The circular economy concept describes a regenerative system that preserves finite resources and is based on the following principles[9)]:

- Avoiding waste and pollution
- Keeping products and materials in use for as long as possible
- Ensuring that natural systems are able to regenerate

For Heidelberg Materials, circularity – i.e. ensuring our products are suitable for use in a circular economy – is an integral part of the Group strategy. The reduction of CO_2 emissions and materials is central to this alongside reuse.

We are working on stepping up our recycling activities and expanding our company portfolio through acquisitions (see **Investments section**).

Targets and commitments
Heidelberg Materials has set itself the target of offering circular alternatives for half of its concrete products by 2030. In addition, we want to continuously raise the substitution rate of natural raw materials by using by-products and recycled materials and increase the use of recycled aggregates in our fresh concrete portfolio.

9) Circular Economy in Detail (ellenmacarthurfoundation.org)

Heidelberg Materials' circular approach to using recycled materials and ensuring the circularity of its products also has the potential, pursuant to the EU Taxonomy Regulation, to make a significant contribution to achieving the EU's climate targets (see **Information according to the EU Taxonomy Regulation section**).

Responsibility and organisation

The topic of circularity is established within the Group ESG department. In autumn 2022, a project team was set up to develop the circularity strategy, support the countries during implementation, and act as an interface for coordination with the Managing Board. Due to Heidelberg Materials' decentralised organisation, the Group countries retain responsibility for implementation and target achievement. Since the topics of circular economy and circularity are closely linked to our CO_2 and emission reduction strategy and the topic of sustainable products, the respective project teams maintain close contact. In addition, the Recycling Steering Committee currently discusses circularity and recycling three times per year.

Policies and processes

Policies and frameworks, such as the European Green Deal or the EU Circular Economy Action Plan, will help to guide the development and future regular review of our circularity strategy. In 2023, Heidelberg Materials plans to introduce a Circularity Policy for adaptation by the Group countries and will support them in its implementation.

We define products as circular if they contribute either to a reduction in materials or to the reuse of materials. In both cases, the threshold set internally and applicable to the products reported here is 30%. We aim to reduce materials by 30% by means of digital design, 3D printing, and the use of special high-performance concretes, for example. Recycled content levels must comply with local regulations and standards – if the threshold of 30% is not legally feasible, the maximum permitted ratio of recycled content will be used. Even if a product's recycled content already exceeds 30%, we will strive for a further increase in order to replace as many primary raw materials as possible with alternative raw materials overall and to increase our contribution to the circular economy (see **Climate, energy, and emissions section**).

The development and testing of the performance of these circular products in the Group countries also takes place in cooperation with the Group Global Research and Development department. We make our circular products a topic of discussion also within our association activities in order to achieve standardisation and, in some cases, certification as well as general acceptance. Through our engagement in various initiatives and associations, we want to promote and accelerate developments in sustainable construction and market transformation (see **Sustainable products and solutions section**).

Measures and progress

As factors such as the proportion of recycled material in products depend on how the circular economy is organised locally and the associated rules and regulations, the possible measures and speed of implementation vary considerably from one Group country to another. Heidelberg Materials therefore works closely with the country locations to identify and facilitate the best possible implementation options in each case. This includes support from the central Research department, for example with regard to material-related issues, as well as regular dialogue within the Recycling Steering Committee, which meets regularly.

In May 2022, Heidelberg Materials won the German Innovation Award for Climate and Environment (IKU) in the "Process Innovations for Climate Protection" category. The ReConcrete-360° project demonstrated the development of a limestone substitute made from demolition concrete. Waste concrete is crushed using novel processes and sorted almost homogeneously into its components to obtain not only sand and gravel but also hardened cement paste. The latter can be reused as a valuable, low-carbon raw material in clinker and cement production, replacing natural limestone as a raw material. In addition, the hardened cement paste can absorb and permanently bind CO_2, thus acting as a carbon sink. The process thereby highlights not only concrete's circularity potential, but also the close connection between the carbon loop and the material cycle.

Performance indicators

From the reporting year 2023, we will quantify the implementation status of our activities relating to the circular economy and circularity on the basis of the proportion of products with circular alternatives or recycled material.

Information according to the EU Taxonomy Regulation

The Taxonomy Regulation is a classification system that translates the EU's climate and environmental objectives into criteria for certain environmentally sustainable economic activities for investment purposes. Economic activities are recognised as "environmentally sustainable" if they make a substantial contribution to at least one of the EU's climate and environmental objectives while not significantly harming any of the other defined environmental objectives. In addition, minimum social standards must be met.

Assessment of taxonomy eligibility

The portfolio of our business activities was assessed in the reporting year with regard to taxonomy eligibility under the delegated acts on climate change mitigation and adaptation. In addition to 3.7 Manufacture of cement (represented in the following as the cement business line), 5.9 Material recovery from non-hazardous waste (represented in the following as the recycled aggregates operating line within the aggregates business line) has been identified as a relevant economic activity (see **Circular economy section**) and included in the reporting pursuant to the requirements of Article 8 of the EU Taxonomy Regulation. There are also other taxonomy-eligible economic activities within Heidelberg Materials' business lines, such as transport services, which are, however, not shown separately and are included in the reporting for the cement business line and activity 3.7.

Heidelberg Materials' other business activities, such as the ready-mixed concrete-asphalt business line, are taxonomy-non-eligible under the currently known legal acts. We also analysed cross-sectional economic activities for the CapEx and OpEx KPIs, but this did not result in any additional reportable activities.

Review of the technical screening criteria

The technical screening criteria for taxonomy alignment with the act on climate change mitigation were reviewed by an interdisciplinary working group and with the involvement of further experts, especially with regard to the interpretation of the "do no significant harm" (DNSH) criteria. The requirements of the climate change adaptation act were not pursued further, as we are currently unable to achieve taxonomy-aligned revenue, capital expenditure and operating expenditure in accordance with the regulation.

To review the criteria determining whether a substantial contribution to climate change mitigation (substantial contribution criteria) is made, internal reporting systems and data were used to verify compliance with the respective limit values at plant level. The analysis differentiates between the various types of plants (integrated plants, clinker plants, grinding plants) on the basis of the reporting definitions set out by the GCCA industry association.

For the somewhat more qualitative DNSH criteria, the individual (legal) requirements and their applicability to Heidelberg Materials were reviewed and potential approaches for proving the alignment of the individual plants were devised. For example, a location-based assessment for climate change adaptation was developed, covering various climate scenarios and time horizons. If risks are identified, the plants will be expected to implement appropriate adaptation measures. At the same time, for criteria such as "protection and restoration of biodiversity and ecosystems" or "sustainable use and protection of water and marine resources," use is made of existing processes. We regularly assess the proximity of our operational sites to protected areas and, if necessary, develop biodiversity management plans. For the "sustainable use and protection of water and marine resources" criterion, we have extended our existing approach of creating water management plans and make use of the assessment of (potential) risks and impacts carried out for this purpose.

For the manufacture of cement and the "pollution prevention and control" criterion, we use, among other things, our long-established processes for monitoring air pollutants to verify compliance. We have also examined the additional requirements for the products we manufacture, such as those relating to placing hazardous substances on the market. We come to the conclusion that these criteria are fulfilled. With respect to circular economy, there are no requirements within the Taxonomy Regulation for 3.7 Manufacture of cement and 5.9 Material recovery from non-hazardous waste.

In order to comply with the minimum safeguards, we have closely coordinated with the Group Legal and Compliance department and compared our existing measures on human rights, anti-corruption, fair competition, and taxation with the requirements of the EU Taxonomy Regulation. As we have been implementing compliance processes in these areas for many years and are continuously reviewing and expanding them, we have come to the conclusion that the minimum safeguards are being met. One current example of our continuous optimisation efforts, is our work in the field of human rights to further expand our analysis of significant risks and their impact on potentially affected parties. Particularly with respect to our supply chains, we have supplemented our existing risk management with suitable processes (in the context of the requirements of the German Supply Chain Due Diligence Act (LkSG), among other things). Further information on this topic can be found in the **Compliance section**.

Explanation of the key figures

The key figures revenue, capital expenditure (CapEx), and operating expenditure (OpEx) relevant to the Taxonomy Regulation were determined with reference to the definitions set out in the Annex to the Delegated

Act to Article 8 of Regulation 2020/852. The relevant revenue, CapEx, and OpEx were assigned to the above-mentioned taxonomy-eligible economic activities. Standard reporting (assignment by business line) was used to determine the key figures, avoiding the possibility of double counting across the two economic activities.

Revenue

The key figure for sustainable revenue pursuant to the Taxonomy Regulation is calculated on the basis of revenue related to the taxonomy-aligned economic activities (numerator) divided by total revenue (denominator). Revenue is defined as the revenue shown in the consolidated income statement that relates to revenue from contracts with customers pursuant to IFRS 15. This can be found in the Notes item 7.1.

The total revenue pursuant to the Taxonomy Regulation amounts to €21,095.1 million, of which €11,005.8 million (52.2%) is attributable to taxonomy-eligible revenue for the cement business line and €57.2 million (0.3%) to the recycled aggregates operating line. The taxonomy-aligned share of revenue is €156.7 million (0.7%) for the cement business line and €11.1 million (0.1%) for the recycled aggregates operating line.

Share of taxonomy-eligible and taxonomy-aligned revenue

	in €m	in %
Taxonomy-non-eligible revenue	10,032.1	47.6
Taxonomy-eligible revenue	11,063.0	52.4
thereof taxonomy-aligned revenue	167.7	0.8
Total revenue	**21,095.1**	**100.0**

The detailed quantitative information at economic activity level can be found in the table on **page 117**.

Capital expenditure (CapEx)

CapEx comprises all additions of tangible and intangible assets, including leases but excluding goodwill and revaluations. The CapEx thus results from the additions to intangible assets (Notes item 9.1) and from property, plant and equipment including right-of-use assets (Notes item 9.2) in the Notes to the balance sheet. Besides additions from ordinary business operations (see line “Additions”), additions from business combinations (see line “Business combinations”) are also included in the total CapEx

Total CapEx pursuant to the Taxonomy Regulation amounts to €1,570.1 million. Of this, €952.5 million (60.7%) is attributable to taxonomy-eligible CapEx for the cement business line and €33.1 million (2.1%) to the recycled aggregates operating line. The taxonomy-aligned share of CapExis €360.8 million (23.0%) for the cement business line and €5.1 million (0.3%) for the recycled aggregates operating line. These taxonomy-aligned CapEx include €365.9 million from additions to property, plant and equipment as well as €0.0 million from additions to intangible assets as well as right-of-use assets.

Share of taxonomy-eligible and taxonomy-aligned CapEx

	in €m	in %
Taxonomy-non-eligible CapEx	584.4	37.2
Taxonomy-eligible CapEx	985.7	62.8
thereof taxonomy-aligned CapEx	365.9	23.3
Total CapEx	**1,570.1**	**100.0**

The detailed quantitative information at economic activity level can be found in the table on **page 118**.

CapEx in cross-sectional economic activities involve marginal as well as no strategic investments. The review of these investments in the 2022 financial year revealed that they are negligible in relation to the total CapEx.

Investment plan (“CapEx plan”) within the meaning of the EU taxonomy

Pursuant to the Taxonomy Regulation, as outlined above, only the cement business line and the recycled aggregates operating line are taxonomy-eligible in the context of the climate change mitigation environmental objective. In order to continuously increase the share of taxonomy-aligned economic activities, investments in carbon capture, utilisation, and storage (CCUS, see **Climate, energy, and emissions section** and **Research and development chapter**) and technical equipment are important factors.

In 2022, Heidelberg Materials set ambitious targets for 2030 based on detailed activities and plans (CO_2 roadmap). Large-scale projects in particular require a long planning and implementation phase, which is why the extension of the planning period to more than five years is objectively justified and in line with the internal CO_2 roadmap. By 2030, Heidelberg Materials plans to invest a total of €3,250.0 million in the 3.7 Manufacture of cement economic activity and €280.0 million in OpEx for the expansion of our taxonomy-aligned activities so that they fulfil the technical screening criteria (substantial contribution criteria and DNSH criteria).

In the reporting year, investments towards the CapEx plan amounted to €354.8 million. The operating expenditure incurred under the CapEx plan for the 2022 financial year amounted to €25.2 million.

In the course of developing a comprehensive circular economy strategy, a CapEx plan is also being drawn up for the taxonomy-eligible economic activity 5.9 Material recovery from non-hazardous waste. Investments in this economic activity are therefore not yet part of the CapEx plan in the reporting year.

Operating expenditure (OpEx)
The following non-capitalised expenses are considered operating expenditure:

- Research and development:
  Expenditure on the development of basic technologies, process innovations, and the optimisation of products and solutions according to the wishes of our customers in the technical competence centers. The total amount for all business lines corresponds to the presentation in the **Research and development section**.

- Lease expenditure for short-term leases and low-value assets:
  Expenditure that meets the definition of IFRS 16 Leases but are not recognised as a right-of-use asset or lease liability because they relate to a short-term lease (<12 months) or a low-value asset. The total amount for all business lines corresponds to the lease expenditure in the other operating expenses in the Notes under item 7.5.

- Repair and maintenance/building renovation measures:
  Expenditure on repair materials, spare and wear parts, and repair services from external providers and employees. The total amount for all business lines differs from the expenditure for third-party repairs and services in the other operating expenses in the Notes under item 7.5 because of the different scope and resulting different inclusion of accounts (third-party repairs and third-party services in contrast to internal and external expenditure for repair and maintenance).

- All other direct expenditure relating to the daily maintenance of property, plant and equipment necessary to ensure the continuous and effective functioning of these assets.

  In the previous year, expenditure on external consulting fees relating to production, technology, and operational improvements were presented at this point, but these are no longer reported in the reporting year due to a narrower interpretation. This adjustment does not result in any significant change to the taxonomy eligibility in the previous year (previous year: approx. 0.1%).

For the 2022 financial year, total OpEx pursuant to the Taxonomy Regulation amounted to €1,582.3 million. Taxonomy-eligible OpEx were identified as €877.6 million (55.5%) for the cement business line and €9.7 million (0.6%) for the recycled aggregates operating line. For part of the taxonomy-eligible research and development expenditure in the cement business line, no direct assignment to the taxonomy-aligned plants is possible, hence they were assigned proportionally to all plants using a key based on total cement production.

In total, €44.6 million (2.8%) of OpEx for the cement business line and €1.0 million (0.1%) for the recycled aggregates operating line are taxonomy-aligned and are composed of €22.9 million research and development expenditure, €19.6 million from maintenance and repair, and €3.1 million from short-term leases.

Share of taxonomy-eligible and taxonomy-aligned OpEx

	in €m	in %
Taxonomy-non-eligible OpEx	695.0	43.9
Taxonomy-eligible OpEx	887.3	56.1
thereof taxonomy-aligned OpEx	45.6	2.9
Total operating OpEx	**1,582.3**	**100.0**

The detailed quantitative information at economic activity level can be found in the table on **page 119**.

Proportion of revenue from products or services associated with taxonomy-aligned economic activities

Economic activities (1)	Code(s) (2)	Absolute Turnover (3)	Proportion of Turnover (4)	Substantial contribution criteria: Climate change mitigation (5)	Climate change adaption (6)	Water and marine ressources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	DNSH criteria: Climate change mitigation (11)	Climate change adaption (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum safe-guards (17)	**Taxonomy-aligned proportion of Turnover FY 2022 (18)**	Taxonomy-aligned proportion of Turnover FY 2021 (19)	Category (enabling activity or) (20)	Cateory "(Transitional activity)" (21)
		€m	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	T
A. Taxonomy-eligible activities																				
A. 1 Environmentally sustainable activites (Taxonomy-aligned)																				
Manufacture of Cement	3.7	156.7	0.7	100.0	–	–	–	–	–		Y	Y		Y	Y	Y	**0.7**			T
Material recovery from non-hazardous waste	5.9	11.1	0.1	100.0	–	–	–	–	–		Y					Y	**0.1**			
Turnover of environ-mentally sustainable activities (Taxonomy-aligned) (A.1)		167.7	0.8	100.0	–	–	–	–	–								**0.8**			
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																				
Manufacture of Cement	3.7	10,849.1	51.4																	
Material recovery from non-hazardous waste	5.9	46.1	0.2																	
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		10,895.3	51.6																	
Total (A.1+A.2)		11,063.0	100.5														**0.8**			**0.7**
B. Taxonomy-non-eligible activities																				
Turnover of Taxonomy-non-eligible activities (B)		10,032.1	47.6																	
Total (A+B)		21,095.1	100.0																	

Proportion of CapEx from products or services associated with Taxonomy-aligned economic activities

Economic activities (1)	Code(s) (2)	Absolute CapEx (3)	Proportion of CapEx (4)	Substantial contribution criteria: Climate change mitigation (5)	Climate change adaption (6)	Water and marine ressources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	DNSH criteria: Climate change mitigation (11)	Climate change adaption (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum safe-guards (17)	**Taxonomy-aligned proportion of CapEx FY 2022 (18)**	Taxonomy-aligned proportion of CapEx FY 2021 (19)	Category (enabling activity or) (20)	Cateory "(Transitional activity)" (21)
		€m	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	T
A. Taxonomy-eligible activities																				
A. 1 Environmentally sustainable activites (Taxonomy-aligned)																				
Manufacture of Cement	3.7	360.8	23.0	100.0	–	–	–	–	–		Y	Y		Y	Y	Y	**23.0**			T
Material recovery from non-hazardous waste	5.9	5.1	0.3	100.0	–	–	–	–	–		Y					Y	**0.3**			
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		365.9	23.3	100.0	–	–	–	–	–								**23.3**			
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																				
Manufacture of Cement	3.7	591.7	37.7																	
Material recovery from non-hazardous waste	5.9	28.0	1.8																	
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		619.8	39.5																	
Total (A.1+A.2)		985.7	62.8														**23.3**			**23.0**
B. Taxonomy-non-eligible activities																				
CapEx of Taxonomy-non-eligible activities (B)		584.4	37.2																	
Total (A+B)		1,570.1	100.0																	

Proportion of OpEx from products or services associated with Taxonomy-aligned economic activities

				Substantial contribution criteria						DNSH criteria										
Economic activities (1)	Code(s) (2)	Absolute OpEx (3)	Proportion of OpEx (4)	Climate change mitigation (5)	Climate change adaption (6)	Water and marine ressources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Climate change adaption (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum safe-guards (17)	**Taxonomy-aligned proportion of OpEx FY 2022 (18)**	Taxonomy-aligned proportion of OpEx FY 2021 (19)	Category (enabling activity or) (20)	Cateory "(Transitional activity)" (21)
		€m	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	T
A. Taxonomy-eligible activities																				
A. 1 Environmentally sustainable activites (Taxonomy-aligned)																				
Manufacture of Cement	3.7	44.6	2.8	100.0	–	–	–	–	–		Y	Y		Y	Y	Y	**2.8**			T
Material recovery from non-hazardous waste	5.9	1.0	0.1	100.0	–	–	–	–	–		Y					Y	**0.1**			
OpEx of environ-mentally sustainable activities (Taxonomy-aligned) (A.1)		45.6	2.9	100.0	–	–	–	–	–								**2.9**			
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																				
Manufacture of Cement	3.7	833.0	52.6																	
Material recovery from non-hazardous waste	5.9	8.7	0.6																	
OpEx of Taxonomy-eligible but not environ-mentally sustainable activities (not Taxonomy-aligned activities) (A.2)		841.8	53.2																	
Total (A.1+A.2)		887.3	56.1														**2.9**			**2.8**
B. Taxonomy-non-eligible activities																				
OpEx of Taxonomy-non-eligible activities (B)		695.0	43.9																	
Total (A+B)		1,582.3	100.0																	

Responsibility towards our employees

Employees

Heidelberg Materials has around 51,000 employees worldwide. We want to offer attractive working conditions and jobs with a secure future. For us, a good personnel policy means respecting our employees with their range of talents, qualities, and diversity of experience as well as creating the right conditions to allow them to do their jobs with efficiency and dedication. As a manufacturing company, we also attach importance to occupational safety and the protection of our employees' health.

At the end of 2022, the number of employees at Heidelberg Materials stood at 50,780 (previous year: 51,209), based on full-time equivalents. The decrease of around 430 employees essentially results from two opposing developments. On the one hand, around 1,200 jobs were cut across the Group as a result of portfolio optimisation measures, the realisation of synergies, efficiency gains in sales and administration, as well as location optimisations. On the other hand, around 770 new employees joined the Group, among others in North America, Australia, and the United Kingdom. Information on the number of employees in the Group areas can be found in the **segment reporting**.

In the event of a reorganisation or job cuts, we work in close consultation with employee representatives to achieve a socially responsible solution. For example, we initially examine the possibility of transferring employees within the Group. If this is not feasible, we try to cushion the individual impact through retraining, early-retirement schemes, outplacement, and severance payments.

Diversity, equity, and inclusion

Group-wide, we aim for a mix of diverse nationalities, personalities, skills, and experience. We see the diversity in our workforce in terms of cultural and ethnic origin, gender, age, mental and physical abilities, and sexual orientation and identity as an asset to our global teams. We are convinced that this diversity, in harmony with an appreciative corporate culture, has a positive effect on our innovative strength and the commitment of our employees.

The international composition of our top and senior management also gives us the benefit of a broad range of experience from different cultural backgrounds. This allows us to respond flexibly and quickly to global challenges as well as local market needs. The proportion of local managers at the upper management level amounts to around 80%.

At our headquarters, we aim to ensure that the workforce is composed of employees from the countries in which we operate, with the intention of improving cooperation with local personnel. Currently, more than 50 different nationalities are represented at our headquarters.

There are trade unions and similar organisations in nearly all of the countries in which Heidelberg Materials operates. We also engage in regular, open dialogue with representatives of these organisations.

Targets and commitments
Our aim is to attract and develop highly qualified and committed employees worldwide who bring their individual skills and different perspectives to our company and thus contribute to our business success.

In 2022, we defined a new, ambitious target for the proportion of women at management level. In Germany, we want the proportion of women in the first and second leadership levels below the Managing Board to reach 27% on each level by 2027. Our global target is for women to occupy 25% of management positions by 2030.

We have been signatories to the Diversity Charter since early 2013.

Responsibility and organisation
The Group Human Resources (HR) department is subordinate to the Chairman of the Managing Board, to whom the Director Group Human Resources reports directly. Group HR is also responsible for the topics of diversity, equity, and inclusion. Each country has its own personnel organisation and sets country-specific human resources priorities. The individual HR directors of the countries report directly to the general manager of the respective country and, in a functional reporting line, to the Group Human Resources department.

Members of the employee committees at the individual locations form the General Works Council for HeidelbergCement AG and the Group Works Council. The representative body for severely disabled employees is embedded in the local works council for the headquarters in Heidelberg.

Policies
Heidelberg Materials is committed to upholding the core labour standards of the International Labour Organization (ILO), the OECD Guidelines for Multinational Enterprises, and both the Universal Declaration of Human Rights and Guiding Principles on Business and Human Rights developed by the United Nations. Moreover, we have enshrined this commitment in our Leadership Principles. We expect our employees worldwide

to comply with these central guidelines and recommendations.

Our Code of Business Conduct is binding across the Group and describes our values as well as our ethical and legal standards. These include non-discriminatory employment conditions and an open and fair dialogue with employee representatives.

With the Company Agreement on Mobile Working in Germany, we are placing particular emphasis on making our working time models more flexible in order to help our employees achieve a better work-life balance.

We have defined guidelines within the Group that concern, for example, respectful behaviour towards co-workers, the involvement and development of employees, a commitment to a strong feedback culture, and the importance of our customers to our corporate success. We urge our managers and employees worldwide to adapt the way they behave towards one another accordingly, taking local circumstances into account.

Processes
Employee and employer representatives maintain a close and regular dialogue. For instance, monthly meetings take place between Human Resources representatives and the works councils at the various locations. Furthermore, the works council organises quarterly staff meetings at the headquarters, which are attended by the Chairman of the Managing Board and the Director Group Human Resources every six months. A meeting of the General Works Council is held once a year, to which the Chairman of the Managing Board, the Managing Director of the German organisation, the Director Group Human Resources, and the Director HR for Germany are invited. In addition, the works council has formed various committees which liaise with the Group Human Resources department as required. Examples include the Personnel Planning Committee, data protection, IT systems, and monthly meetings with the works council at headquarters. Group management and employee representatives also engage in an established, constructive dialogue in the European Works Council.

Human resources issues are considered at Managing Board meetings to which the Director Group Human Resources is invited depending on the topic. The Supervisory Board meets at specified intervals to discuss personnel issues related to the Managing Board.

We have embedded key leadership principles in standard human resources processes. In annual salary review processes, we ensure that the remuneration of our managers and employees not covered by collective agreements develops appropriately for each individual. As part of a structured target agreement process, managers and employees jointly define the forthcoming tasks and expectations. Individual performance appraisals also have an impact on remuneration. A further purpose of career development discussions is to support our employees' development and career planning. These processes have been automated for 11 years through our HR Globe HR system and offer self-service features for employees and managers. A total of around 10,000 employees worldwide are registered in the system. Over 35,000 employees have access to e-campus, our current learning management system, in which we offer training activities on specialist and general work-related topics. We began working on the introduction of our new Workday HR system in a Group-wide project in 2021 with the intention of establishing it as the Group's central HR IT system worldwide. Workday will gradually replace systems such as e-campus and HR Globe. We laid the foundation with the global roll-out of Workday in December 2022. More than 45,000 employees are monitored with their HR master data in the system. The roll-out of further modules is planned for 2023, including processes relating to talent management.

Measures and progress
In recent years, we have further developed our measures aimed at promoting women. The proportion of women in programmes for the advancement of future executives across Germany was 31% (previous year: 31%) and therefore, as in previous years, significantly higher than the proportion of women in the total workforce in Germany of 16.9% (previous year: 15.9%). We also provide targeted support for the career development of our female future executives. In Germany, for example, we participate in a cross-company mentoring programme in cooperation with other companies from the Rhine-Neckar metropolitan region, where our headquarters is located.

The global NOW – Network of Women, which was launched at Heidelberg Materials in 2011, connects female employees around the world virtually and in person and supports individual career development as well as promoting women in general. The initiative aims, among other things, to support the network's members in developing their career potential and to build greater awareness throughout the company of the changing demands on working and living environments. The Allies of NOW programme, introduced in 2021, also offers opportunities for male employees to advocate for gender equality at Heidelberg Materials.

As in previous years, Heidelberg Materials took part in activities for German Diversity Day in 2022.

Performance indicators

As at 31 December 2022, the proportion of women in Germany in the first leadership level below the Managing Board was 16% (previous year: 17%) and 25% (previous year: 19%) in the second leadership level below the Managing Board. The increase or decrease is due, among other things, to organisational changes or newly created management positions.

At Group level, the proportion of women in the first two leadership levels below the Managing Board was unchanged from the previous year at 14%.

Proportion of women in management positions

	2020	2021	**2022**
First and second leadership level Germany	16%	18%	22%
First leadership level Germany	16%	17%	16%
Second leadership level Germany	16%	19%	25%
First and second leadership level Group[1]	-	14%	14%

1) Adjustment of definition as of 2021 to include Group average.

Occupational health and safety

Occupational health and safety is one of the fundamental elements of our corporate culture and work processes. We are constantly working to improve occupational safety for our employees.

The extraction of raw materials and the production of cement and aggregates inherently harbour various dangers, for example with regard to the transportation of raw materials and finished products, working at great heights, high voltage currents, using heavy technical equipment, or with respect to rotating parts of kilns, mills, or conveyor belts as well as hot temperatures around the cement kilns.

With effective preventive measures, we intend to minimise the risk of accidents and injuries as well as the risk of occupational illness. However, there are still accidents and occupational illnesses. Accidents may include situations in which first aid is required as well as serious injuries or even fatalities. Common reasons for occupational illnesses being recognised are temporary conditions, such as back problems and other musculoskeletal disorders as well as respiratory diseases, and also permanent impairments, such as noise-induced hearing loss. Besides the impact on the individuals and their families, there may also be consequences for their colleagues and for the company. Apart from the mental strain, these consequences may include additional overtime, restrictions on holiday, or the restructuring of working groups. Depending on the severity of the incident, it may also lead to interruptions in operational processes or even downtime for parts of production, which will naturally result in financial losses for the company.

Targets and commitments

We work continuously to further minimise the risks for our employees, contractors, and third parties. Our most important aim in occupational health and safety is to prevent accidents, in particular accidents resulting in fatalities, which we also confirmed in our Sustainability Commitments 2030. In addition, we want to reduce the lost time injury frequency rate (LTIFR) by at least 50% by 2030 compared with 2020.

Responsibility and organisation

At Heidelberg Materials, all management levels are accountable for occupational health and safety. Our occupational safety organisation is subordinate to the Chairman of the Managing Board, to whom the Director Group Human Resources, who is responsible for Group Health & Safety, reports directly. She reports the global occupational safety figures to the Managing Board on a monthly basis. The Managing Board members responsible for the different Group areas are supported by H&S advisors who report to them.

Each country also has an H&S advisor reporting directly to the country management, which coordinates the measures within the relevant country. The regional and local management levels in a country are also supported by H&S advisors.

Occupational health and safety measures designed to tackle any weak points are defined by both Group Health & Safety and the local units. Occupational safety is part of the individual target agreements of the Managing Board and the operational top management in the various countries. Last but not least, all employees, contractors, and visitors have a personal responsibility to follow the occupational safety regulations.

Policies

In all countries, occupational health and safety is subject to legal requirements. Furthermore, as a member of the Global Cement and Concrete Association (GCCA), Heidelberg Materials complies with its guidelines. These have been integrated into our internal standards.

As part of our Group policy on occupational health and safety, we have defined a set of cardinal rules that are mandatory for all employees and contractors. They relate especially to those activities that have been identified as main risk areas for accidents. They include in particular all transport activities, both at the locations and during shipping to the customer, working at height and in confined spaces, as well as working on and with running machines. These main risk areas for accidents are therefore also addressed in specific Group standards, which apply equally to all countries and must be translated into local regulations.

Processes
Occupational health and safety management systems, such as the internationally accepted ISO 45001 standard and comparable local standards, have already been implemented in 99% of our locations. These systems require a structured approach from the local line management with planning, clear safe work procedures, responsibilities, and controls to ensure an ongoing improvement process and thus prevent accidents.

To support this approach, we use HC Protect throughout the Group. This is a standardised software in which accidents are recorded by our own employees, employees of external companies, and if appropriate, third parties. An accident event cannot be closed in HC Protect until the causes of the accident have been analysed and documented and corrective or preventive actions have been defined. The system tracks the measures defined to ensure that opportunities for improvement are realised. We share the findings from accident investigations across the Group in the form of safety alerts in order to prevent similar accidents happening anywhere else. In the event of an accident resulting in a fatality, this incident will also be discussed by the Managing Board.

In addition, we place special emphasis on the preventive recording of unsafe conditions in the workplace so that we can remedy them and derive measures. We therefore record in HC Protect any near misses or unsafe conditions observed during safety conversations or plant inspections and determine appropriate corrective actions and the target date with the responsible parties. In the last software upgrade, we broadened the range of accident types covered in order to be able to investigate in more detail incidents that do not result in personal injury but do involve damage to vehicles or the environment. The data collected is used at all management levels for monthly reporting.

Measures and progress
In order to obtain an up-to-date overview of the implementation status of our safety standards at our plants, we have expanded the target/actual analyses begun in the previous year for all locations to include topics on driver safety and the safety of visitors and contractors. The gaps and remedial measures identified in the process, as well as progress made, are discussed with local management on a regular basis, and at least quarterly.

We place a special focus on potential fatal incidents (PFIs) in order to set them apart from the multitude of less critical incidents. Incidents that could have been fatal are flagged as PFIs in HC Protect and must also be investigated in full if no one was harmed. The incident can only be approved and closed once a root cause analysis has been completed and corrective actions have been defined.

To prevent job-related illnesses, we check our work sites habitually for exposure to factors hazardous to health, such as noise or dust. Employees who are exposed to these risks are regularly examined by occupational health specialists. Employees trained as first aiders can provide first aid in emergencies at all operational sites.

In countries with less-developed statutory healthcare systems, our subsidiaries offer health check-ups for all employees and in some instances for their families. In regions where diseases like HIV/AIDS, Ebola, and malaria occur more frequently, programmes have been set up to advise the employees and inform them of the risks. These services are mostly offered through our own medical stations or the medical staff of in-house clinics.

In Germany, we have incorporated our health management activities in the FIT for LIFE initiative. This includes a prevention programme for the early diagnosis of illnesses and risk factors, but primarily focuses on the initiative of individuals to adopt a healthy lifestyle. For employees in Germany, we have introduced the option of company bicycles and set up a fitness studio at the Group headquarters offering physiotherapy support. In the future, our health management activities will continue to focus on preventing typical age-related health risks and supporting health-conscious behaviour. We are therefore specifically promoting company sports activities for a range of age groups.

To help our employees deal with stress, conflicts, changes at work or in their private lives, as well as health problems, we offer counselling programmes in some Group countries. In some cases, we work together with external, professional providers of counselling services. Use of these services is free of charge and is treated confidentially. In many countries, we also offer appropriate support in the event of accidents to help the colleagues affected to come to terms with what they have experienced.

The steps taken in previous years regarding travel restrictions and protective measures taken at individual locations in response to the coronavirus pandemic were adapted in the reporting year to the relevant local infection situations and regulations. Although many measures have been lifted altogether, some remain in many places because they have proven effective as preventive measures against other infectious diseases, such as flu. These include the increased provision of disinfectants, the installation of physical partitions, and more virtual meetings.

In 2022, we continued training our employees on a range of occupational safety topics, including both legally mandated and internally defined topics relating to key hazards that are relevant locally and across the Group. By doing so, we aim to increase awareness of risks and further reduce the number of accidents, especially those resulting in fatalities.

We make use of conventional training in classrooms or on site in addition to e-learning courses, which are only ever used to supplement face-to-face training. Occupational safety topics account for around 55% of all training hours at Heidelberg Materials, corresponding to an average of approximately 15 hours per employee across the Group.

In addition to the conventional training activities, safety conversations also play a central role as a preventive measure against accidents. During these conversations between managers and employees, both safe and unsafe behaviour in the relevant situation are discussed and, if necessary, safer procedures are agreed. In 2022, we asked managers to place a strong focus on conducting last-minute risk assessments in their safety conversations. Our analyses of the causes of accidents show that some accidents could have been prevented if an additional short risk assessment had been performed immediately before the work was carried out, i.e. at the last minute, taking into account factors such as the current weather conditions or the health of the employees. By focusing more on this issue, we want to build greater awareness of this important preventive step on the part of both management and employees. We record the results of the safety conversations in HC Protect so that, for example, we can detect local pockets of unsafe behaviour. By carrying out regular safety inspections, we want to contribute towards compliance with the defined safety requirements.

Performance indicators
Lost time injury frequency rate increased slightly in the reporting year to 1.7 (previous year: 1.6). The lost time injury severity rate, on the other hand, decreased significantly from 95 to 79. This development shows that on average we had fewer serious accidents with long periods of absence. The increased focus on conducting “last minute” risk assessments as a preventive measure is likely to have had a positive impact here. In the business year 2022, we had to mourn the death of one of our own employees and four employees of contractors lost their lives. In four cases, the accidents occurred during work to remedy unexpected disruptions in the operating process, and in another case there was a traffic accident in the quarry.

Accident development

	2020	2021	**2022**
Lost time injury frequency rate[1)]	1.6	1.6	1.7
Lost time injury severity rate[2)]	86	95	79
Fatality rate[3)]	0.4	0.0	0.2

1) Number of accidents (with at least one lost working day) suffered by Group employees per 1,000,000 working hours
2) Number of lost working days resulting from accidents suffered by Group employees per 1,000,000 working hours
3) Number of fatalities of Group employees per 10,000 Group employees

Compliance

As a global Group, Heidelberg Materials is subject to a variety of legal requirements, which vary from country to country. In order to take account of these differences and ensure corporate governance, we have implemented a compliance management system across the Group. Within this framework, we carry out compliance risk assessments every four years, most recently in 2020, and determine areas of focus for the content of the compliance programme. This is done by conducting structured interviews with the general managers of the country organisations and the Group directors. Compliance risk areas are identified and ranked. The risks in the topic areas of corruption, competition law, and human rights are among the ten most important risks that we mitigate by means of our compliance management system.

Corruption topic area
Heidelberg Materials’ business activity involves significant cash flows, particularly in sales, procurement, financing, and investments, providing opportunities for corruption to occur in all countries of the world. According to Transparency International’s Corruption Perceptions Index, many of the countries in which

Heidelberg Materials operates have an increased risk of corruption.

Competition law topic area
As Heidelberg Materials' products are largely standardised, competition is heavily determined by price. In addition, the markets in which we operate have a relatively high degree of transparency and are often characterised by oligopolistic structures. All of this can, on the one hand, increase the incentive for unlawful restraints on competition and, on the other hand, also lead to mere suspicions of antitrust violations.

Human rights topic area
Working with heavy technical equipment or in logistics poses a potential risk to safe working conditions in our industry. This is also a significant human rights risk at our suppliers and service providers. There is a risk of discrimination in all countries. Particular attention should be paid to the risk of discrimination against women in the sector, which is still male-dominated. The extraction of raw materials can lead to conflicts with the rights of the population, for example if there are resettlement plans or if specially protected indigenous groups are affected.

Targets and commitments
We apply a zero tolerance policy to violations of applicable laws, regulations, and internal company policies. We also expect our employees and business partners worldwide to comply with key guidelines and recommendations, such as the principles of the eight core labour standards of the International Labour Organization (ILO), the OECD Guidelines for Multinational Enterprises, and the United Nations Guiding Principles on Business and Human Rights. All suppliers are also obligated to comply with our Supplier Code of Conduct.

Our management and monitoring structures are regulated in the company's Articles of Association, the Rules of Procedure of the Managing Board and the Supervisory Board, and the German Stock Corporation Act (AktG) and are in line with the German Corporate Governance Code (see **Corporate Governance statement chapter**).

The impacts of any new investment on our compliance management system and, in particular, our human rights obligations are also part of our due diligence process. Human rights and business considerations are both taken into account when making investment decisions.

Responsibility and organisation
The compliance programme, which is anchored in the Group-wide management and supervisory structures, is part of our management culture. It comprises the entire compliance organisation within the Group, the set-up of guidelines, and the verification of compliance with these guidelines. The compliance management addresses all compliance topics that Heidelberg Materials has identified as relevant in the compliance risk assessment.

The compliance organisation is under the authority of the Chairman of the Managing Board, to whom the Director Group Legal & Compliance reports directly. Each country has its own compliance officer, who reports directly to the country manager and indirectly to the Group Compliance department. The Compliance function is also responsible for the compliance management system for human rights. In 2022, the Managing Board appointed a Group human rights officer. In order to implement the human rights compliance programme, two new positions have been created in the Group Compliance department with a focus on human rights expertise. The future incumbents will cover topics ranging from risk analysis to preventive and remedial measures – in both their own business line and the supply chain. Since the end of 2022, a human rights coordinator has been responsible for human rights compliance management in each of the country organisations. In addition, the country organisations appoint environmental experts to assist human rights coordinators as partners in assessing and addressing human rights risks related to environmental aspects.

Policies
Our compliance principles are laid down in the Code of Business Conduct, which covers all compliance topics identified as material for Heidelberg Materials. The organisation of the compliance management system is defined in the internal Compliance Policy.

In 2022, we specified standardised rules for all governance documents in a new framework policy. Against this background, several compliance policies have also been adjusted, such as our Group Compliance Incident Reporting & Case Management Guideline, which lays down the principles for reporting compliance issues, processing and investigating submitted complaints, and protecting those reporting the incidents.

The Group Anti-Corruption Guideline defines principles such as behaving with integrity towards business partners or avoiding conflicts of interest.

As regards competition law, the acceptable behaviour for Heidelberg Materials is derived firstly from the applicable antitrust laws including relevant international regulations, such as the antitrust regulations in the Treaty on the Functioning of the EU. In its Code of Business Conduct and with the Group Competition Law Guideline, the content of which was also adjusted in 2022, plus the national antitrust law guidelines based on the latter, Heidelberg Materials has made an explicit internal commitment to strict compliance with antitrust laws, such as the prohibition of cartels and the abuse of a dominant market position, as well as with the rules of merger control.

Heidelberg Materials' position on human rights is a commitment by the Group to respect human rights. Among other things, it addresses employees' working conditions, responsibility at our locations (including the rights of indigenous peoples), and the selection of suppliers and customers. The internal Guideline on Human Rights Compliance Management regulates the organisation and responsibilities associated with implementing compliance with human rights.

Processes

The compliance programme integrated across the Group serves as a cornerstone for achieving our compliance targets. A central element of this programme is the self-commitment made by the Group management not to tolerate violations of applicable laws and to impose sanctions. The programme also includes internal guidelines and measures that express the legal provisions in concrete terms. In addition, suitable corrective and preventive measures are taken to help prevent similar incidents in the future. Further to annual communication of these guidelines, compliance letters and video messages are circulated to the workforce. Software is used for the administration of compliance tasks and reporting. The intention is that this will also replace the previous software for compliance risk assessments in 2023. Furthermore, we have established SpeakUp, a web- and telephone-based reporting system accessible across the Group and also to people outside the organisation.

As well as face-to-face training, employee training is also carried out online. The range of digital courses, which are mandatory for specified groups of employees, covers topics such as the Code of Business Conduct, competition law, and the prevention of corruption. In order to achieve a 100% completion rate for all digital compliance training, we require the country managers to additionally report on training attendance to the responsible member of the Managing Board. The group of persons required to attend the online training courses includes, depending on the course, all employees who have a company email address or employees of specific departments and/or managers. The training courses are mandatory for new hires and are repeated every two years. In addition, training sessions are conducted on other compliance topics such as human rights or money laundering. They are carried out both at the request of specific departments and on the instructions of the Compliance function.

The entire compliance programme is continuously reviewed for the need to adapt to current legal and social developments by keeping track of news and exchanging information with compliance experts, and is improved and further developed accordingly.

Group-wide implementation of the compliance programme is monitored by regular and special audits by Group Internal Audit as well as via half-yearly reporting by the Director Group Legal & Compliance to the Managing Board and the Audit Committee of the Supervisory Board. The latter monitors the effectiveness of the compliance programme and verifies in particular whether it adequately satisfies the legal requirements and recognised compliance standards. An additional quarterly report informs the Managing Board members with regional responsibility about the most important compliance incidents in their Group areas. Following the adequacy assessment of the compliance management system of HeidelbergCement AG carried out in 2021 on the basis of the IDW PS980 auditing standard, which was confirmed without qualification of the audit opinion, the recommendations for improvement have either already been implemented in 2022 or are in implementation.

Approximately every three years, we conduct a comprehensive analysis to assess and prevent corruption risks and possible conflicts of interest. A rolling approach ensures that different Group countries are analysed each year as part of this cycle. First, the potential risks within a country organisation are assessed. Then, the measures already in place to limit these risks are evaluated, and finally, we examine whether further measures are needed. On the basis of this assessment, an action plan is drawn up for each country, and its implementation is monitored by the Group Legal & Compliance department.

In the area of competition law, we have a comprehensive reporting system on antitrust investigation proceedings. An annual competition law update takes place at the level of the Managing Board and of the employees who report directly to the members of the Managing Board with responsibility for sales. Furthermore, annual qualitative assessments of the antitrust risks take place in the countries. A regular external audit of the competition law compliance programme is conducted by a specialist law firm approximately every three years.

We have established management processes that allow us to exercise effective human rights due diligence and in our opinion meet the requirements of both the United Nations Guiding Principles and the German Supply Chain Due Diligence Act (LkSG).

In our country organisations, we carry out human rights risk analyses, which are currently still scheduled to be repeated every three years. The exact timetable is agreed individually with each country organisation. From 2023, HeidelbergCement AG is required by law to carry out annual risk reviews. The process will consider risks relating to discrimination, child or forced labour, risks to freedom of association and collective bargaining, risks to fair and safe working conditions, to the right of peoples to self-determination, and to the rights of indigenous peoples. The analysis includes determining potential risks from the perspective of different functions, such as production, procurement, or sales, as well as identifying existing measures and defining additional measures to be implemented. The commitment to human rights aspects as a central selection criterion for suppliers is driven forward by our supplier management system. This obliges our partners to commit to our Supplier Code of Conduct, which requires compliance with human rights due diligence obligations as defined by the German LkSG, such as the prohibition of forced labour and rules on non-discrimination.

Measures and progress

Non-compliance with our guidelines by employees may result in disciplinary measures up to and including dismissal. Violations of corruption or competition laws, human rights, or contractual agreements by third parties may result in their exclusion from conducting business with Heidelberg Materials or require them to meet certain test conditions.

Our SpeakUp reporting platform, helps us not only to track compliance violations, but also to improve our preventive measures. SpeakUp is publicised on the intranet, on the internet, and at the various locations by means of informative posters. To reinforce our efforts to combat corruption, the country organisations are working on the implementation of individual country measures that were defined as part of the corruption risk assessment. The same applies to competition law and the protection of human rights.

In 2022, the preventive activities of the compliance officers once again placed great emphasis on compliance with the provisions of competition law and anti-corruption regulations. In order to implement the German LkSG, the compliance officers have intensified their cooperation with the Group department Group Procurement as part of the Responsible Procurement initiative. Other functions were made aware of their human rights due diligence obligations via information events backed by appropriate training measures.

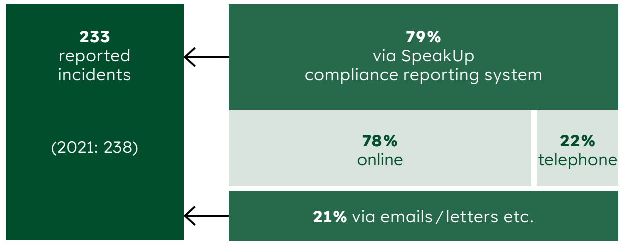
After pandemic-related restrictions were lifted, more training measures could be carried out again in 2022, with virtual concepts continuing to dominate. Compliance audits by Group Internal Audit were carried out on-site again.

Efforts to protect human rights at our own locations – with a focus on safe working conditions and anti-discrimination – and in the supply chain continued and were intensified by the new human rights compliance organisation described above and the Responsible Procurement initiative. In addition to training activities, this work included systematically assessing human rights risks on a country-by-country basis and compiling key indicators relating to human rights. The results were analysed jointly by the respective country organisation and the Group Compliance department. The implementation of the agreed action plans for further risk reduction was reviewed and reported to the responsible member of the Managing Board.

Performance indicators

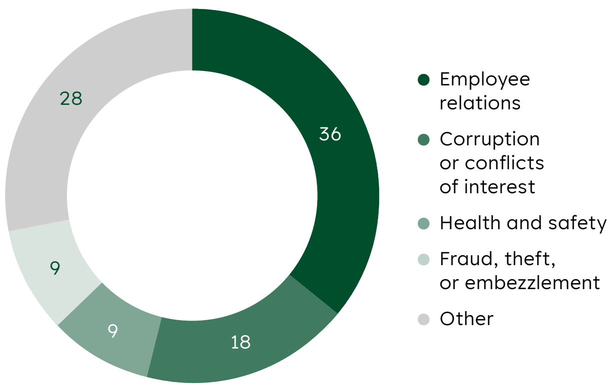
In 2022, a total of 233 incidents were reported in our case management system and investigated under the supervision of compliance employees in the country organisation or by Group Compliance.

Incidents reported via case management system



Most of the reports received concerned employee relations. Other reports related to health and safety; fraud, theft or embezzlement; and corruption or conflicts of interest. Other categories of cases accounted for lower percentages of the total.

Incident categories in %



Of the 233 incidents reported, around half proved to be unfounded, while for 20%, no final investigation result had been determined by the editorial deadline. For just under 28% of the incidents, the investigations revealed that they were at least partially substantiated. None of the substantiated incident reports had a material impact on the consolidated financial statements.

For all substantiated cases, measures were taken, ranging from root cause analysis, changes to policies and processes, and communication and training through to disciplinary action (such as a written warning or dismissal). In 42% of the substantiated cases, sanctions are imposed and for 81% of these incidents, preventive measures are implemented.

At the end of the reporting year, the compliance e-learning programmes assigned to employees across the Group, covering the Code of Business Conduct and anti-corruption issues, had completion rates of 94%[10)] and 95%[10)] respectively.

Electronic training on antitrust law is additionally assigned to employees who work in sales or procurement, have management responsibility, or otherwise have contact with competitors, customers, and suppliers, achieving a completion rate of 93%[10)] at the end of the reporting year. There were also other compliance activities in the area of antitrust law (seminars, lectures, and other measures).

The country organisations are required to report key figures, such as the number of compliance cases reported through the case management system that involve suspected human rights violations. Apart from cases on health and occupational safety, four cases of discrimination were reported in relation to human rights issues, one of which was confirmed, and seven cases of harassment, with four justified complaints. The confirmed cases were responded to with sanctions and/or preventive measures.

10) Since 2022, the training status of the persons to be trained at the end of the financial year has been reported over the two-year training repetition period.

Outlook

This outlook contains forward-looking statements based on the information presently available and the current assumptions and forecasts of the Group management. Such statements are naturally subject to risks and uncertainties and may therefore deviate significantly from the actual development.

Risks and opportunities that are not part of the outlook and may lead to significant negative or positive deviations from the forecasted developments are included in the **Risk and opportunity report chapter**.

Assumptions underlying our outlook

Our business is subject to a multitude of external influencing factors that are beyond our control. These include weather-related, macroeconomic, regulatory, and geopolitical factors. This outlook is based on the assumption that the global political environment will not undergo any further critical changes during the outlook period and that international tensions will not significantly impair Heidelberg Materials' business activities.

Furthermore, we assume that the coronavirus pandemic is at a turning point and will develop into an endemic worldwide due to vaccination progress. We therefore do not expect it to cause renewed drastic restrictions affecting the economy.

Crucial factors for the development of the construction industry include, in particular, weather conditions, the local economic cycle, the development of energy and raw material prices, the level of public investments, and financing costs for real estate. In the growth markets of the emerging countries, the income available for private residential construction also plays an important role.

We have not taken account of any material changes to balance sheet items or any associated expense or income items in our outlook below that may result from, among other things, changes to macroeconomic parameters, such as discount rates, interest rates, inflation rates, exchange rates, changes to future salary developments, or climate policy.

Evaluation of the outlook by Group management

Against the background of the consequences of the Russia-Ukraine war and persistently high inflation, the International Monetary Fund (IMF) expects in its January 2023 forecast global economic output to grow by 2.9% in 2023.

Euroconstruct and PCA, among others, predict a slight decline in global construction activity in 2023. The good order situation for infrastructure projects and parts of the non-residential construction sector should offset the decline in residential construction.

The Managing Board expects the result from current operations (RCO) to be in a corridor of €2.35 billion to €2.65 billion. It expects for ROIC a value of around 9% and a slight reduction for specific net CO_2 emissions.

The Managing Board continues to assess Heidelberg Materials' financial situation as comfortable in the forecast period.

At the time of preparing the Group financial statements, the Managing Board is not aware of any material risks that might jeopardise the company as a going concern (see chapter **Risk and opportunity report**).

Economic environment

General economic development

The global economy is expected to cope better than initially feared with the consequences of the Russia-Ukraine war and persistently high inflation. In its January 2023 forecast, the International Monetary Fund (IMF) expects global economic output to grow at a slower rate of 2.9% in 2023 after an estimated 3.4% increase in the previous year. However, the outlook is believed to be less bleak than assumed in October 2022. The reasons identified by the IMF include the unexpectedly high resilience of numerous economies and China's abandonment of its zero-COVID strategy. According to the latest forecast, growth is expected to bottom out in the current year, while inflation is projected to decline. If China makes faster progress with vaccinations against the coronavirus, this could lead to an upswing in the global economy. However, the IMF also notes numerous risks that could result in a deterioration of the economic situation – including a worsening of the coronavirus pandemic in China, a further escalation of the Russia-Ukraine war, and negative effects due to central banks adopting more restrictive monetary policy. Wage growth has intensified in some industrial countries, which could delay the expected slowdown in inflation.

In its October 2022 and January 2023 forecasts, the IMF expects the following growth rates for Heidelberg Materials' most important sales markets:

Expected growth in real GDP[1)]

	2023
Western and Southern Europe	
Eurozone	0.7
Germany	0.1
France	0.7
United Kingdom	-0.6
Italy	0.6
Northern and Eastern Europe-Central Asia	
Norway	2.6
Poland	0.5
Russia	0.3
Sweden	-0.1
Czechia	1.5
North America	
Canada	1.5
USA	1.4
Asia-Pacific	
Australia	1.9
China	5.2
India	6.1
Indonesia	5.0
Africa-Eastern Mediterranean Basin	
Egypt	4.4
Ghana	2.8
Morocco	3.1
Tanzania	5.2
Togo	6.2

1) Source: International Monetary Fund (IMF), October 2022 and January 2023 forecasts

For the 2023 financial year, we expect energy prices to continue to be significantly influenced primarily by the Russia-Ukraine war and related sanctions, but also by China's coal import and price policy and OPEC's oil production policy.

In 2022, market prices for electricity, natural gas, and coal were highly volatile. This situation could persist in 2023. At the end of 2022, prices had fallen, especially in Europe, due to mild weather and high gas storage levels. This trend continued at the start of 2023. At current price levels and based on our contract portfolio – a mix of forward market and spot purchases – we do not expect energy prices to rise further on average for the whole of 2023.

Development of the construction industry
The development of economic output is also reflected in the expectations for the construction industry.

In its November 2022 forecast, Euroconstruct predicts a slight decline in construction activity in Europe as a whole in almost all construction sectors in 2023. Construction activity is expected to decline in Sweden, Norway, Italy, Belgium, and the United Kingdom. Positive development in the construction sector is expected in the Netherlands, France, and Germany.

According to the autumn forecast of the American cement association PCA, a decrease in construction activity is anticipated in the USA for 2023. Both residential construction and non-residential construction are expected to decline, while slight growth is predicted in public construction.

The Australian Construction Industry Forum expects a further slight increase for the Australian construction industry. The forecasts are positive especially for non-residential construction and infrastructure construction, which is supported by rising public spending, while residential construction is suffering from the increased interest rates.

In contrast to the mature and developed countries, the GDP growth forecasts and data on population growth as well as per capita cement consumption are frequently used indicators for construction development in the growth markets of emerging countries in Africa and Asia. In this respect, the IMF growth rates for these markets provide an indication of the development of the construction industry.

Industry development

The European Commission has defined its position on the revision of the EU Emissions Trading System (EU ETS) for the fourth trading period from 2021 to 2030 within the "Fit for 55" programme. The original cross-sectoral reduction target for 2030 within the EU ETS was thus raised from 43% improvement compared with 2005 to 62%. The existing benchmarks will apply to the first half of the fourth trading period until 2025. For the years from 2026 onwards, changes are anticipated that will lead to a further significant reduction in CO_2 certificates and thus in free allocations.

In addition, the reform of the Emissions Trading System was adopted in December 2022. The Carbon Border Adjustment Mechanism (CBAM) will be implemented from 2026 and, in parallel with the reduction in free allocations for European plants, will introduce gradually increasing CO_2 import fees for cement and clinker.

With the announced measures within the EU ETS, a significant curtailment in the allocation of CO_2 emission rights is to be expected within the fourth trading period. Prices for emission rights have risen since September 2022. At the beginning of 2023, the CO_2 price reached the mark of around €100. A further price increase in the fourth trading period could lead to additional costs for covering the required emission rights, accompanied by a decrease in the freely allocated certificates. So far, Heidelberg Materials has a sufficient number of emission rights across the Group for the next two years. However, in individual countries there are already shortages of emission rights, which are covered by intra-Group trading. Further information can be found in the **Risk and opportunity report chapter**.

Outlook 2023

Forecast of the key performance indicators

Demand in the construction sector is likely to remain mixed in the current year. The good order situation for infrastructure projects and parts of the non-residential construction sector should offset the decline in residential construction. Cost developments on the energy and raw material markets remain volatile, although energy prices currently appear to be easing somewhat. The focus is therefore on further price adjustments and strict fixed cost management.

For the financial year 2023 the Managing Board expects the result from current operations (RCO) to be in a corridor of €2.35 billion to €2.65 billion.

ROIC is expected to be at around 9%.

Heidelberg Materials is anticipating a further slight reduction in specific net CO_2 emissions per tonne of cementitious material as part of the CO_2 roadmap for 2023.

Supplementary forecast of other financial figures

For the financial year 2023, the Managing Board anticipates further moderate growth in revenue (excluding scope and exchange rate effects).

For the financial year 2022, the Managing Board and the Supervisory Board propose to the Annual General Meeting the distribution of a dividend of €2.60 per share. Heidelberg Materials will continue to pursue a progressive dividend policy.

The company forecasts net investments in property, plant, and equipment (investments in and divestments of property, plant, and equipment) in the 2023 financial year to be at around €1.1 billion.

In January 2023, we repaid the maturing long-term loan of €180 million to the European Investment Bank. Heidelberg Materials still plans to settle the financial liabilities expiring in 2023 through free cash flow and available liquidity.

With the €2 billion Multi-Currency Sustainability Target Commercial Paper Programme and the €10 billion EMTN Programme we also have framework programmes in the money and capital markets in place, which allow us to issue the relevant securities within a short period of time.

On 20 January 2023, we placed a sustainability-linked bond with an issue volume of €750 million and a term until 2032. In view of the bond maturities coming up in 2024, it is being considered to issue additional bonds for refinancing in 2023, depending on the market situation.

In financing management, the focus will remain on sustainable financing in 2023. Heidelberg Materials aims to increase the share of sustainable financial instruments to over 70% by 2025.

Heidelberg Materials continues to aim for a solid investment grade rating. The leverage ratio is to be maintained within the strategic corridor of 1.5x to 2.0x.

Risk and opportunity report

Risks and opportunities

Heidelberg Materials' risk policy is based on the Group strategy, which focuses on sustainably preserving and increasing enterprise value. Heidelberg Materials is subject to various risks on account of its international business activity. The risk management process serves to identify these risks at an early stage and to assess and reduce them systematically.

At Heidelberg Materials, risks and opportunities are monitored and managed across the Group with the help of integrated planning and monitoring systems. We consider events that may have a negative impact on the achievement of short-term and long-term operational and strategic corporate targets to be risks. Provided that these risks are consistent with the legal and ethical principles of entrepreneurial activity and are well balanced by the opportunities they present, these risks are classified as acceptable. We see possible achievements that go beyond our corporate planning as opportunities. Operational management in each country and the central Group departments are directly responsible for identifying and observing risks and opportunities at an early stage. Risks and opportunities are recorded in the annual operational plan and followed up as part of monthly financial reporting.

Risk management

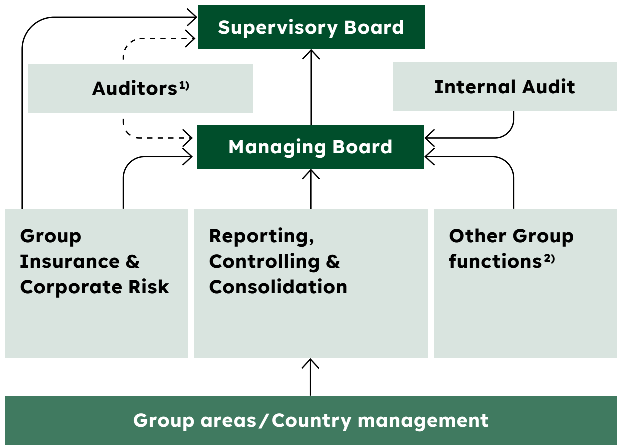
The Managing Board of HeidelbergCement AG is obliged to set up an appropriate and effective Group-wide internal control and risk management system. The Managing Board also has overall responsibility for the scope and organisation of the established systems. For an assessment of the appropriateness and effectiveness of the risk management system and the internal control system, please refer to the details in the **Corporate Governance statement**. The Supervisory Board and its Audit Committee also monitor the effectiveness of the risk management system on a regular basis.

Heidelberg Materials has installed transparent regulations to govern competences and responsibilities for risk management that are based on the Group's structure. A code of conduct, guidelines, and principles apply across the Group for the implementation of systematic and effective risk management. The risk management system primarily serves to record and analyse risks. Where appropriate, country management takes potential opportunities into account in planning processes. Our risk management process reflects the decentralised structure of the company and facilitates the identification of risks as part of the operational plan. It comprises several components that are carefully coordinated and incorporated into the structure and workflow organisation.

The essential elements of the risk management system are:

- Documentation of the general conditions for a methodical, efficient risk management in a Group guideline; in addition to this Risk Management Policy, the Group's Code of Business Conduct includes the code of conduct and compliance standards to be observed
- Coordination of the risk management process at Group level in the Group Insurance & Corporate Risk department
- Recording of risks and measures by managers responsible for corporate risk at country level
- Involvement of internal and external experts to assess and record specific risks (IT/cyber risks; environmental, social, and governance (ESG) risks)
- Monitoring of local risk management processes, including risk identification and assessment by local operational management
- Direct information and open communication about identified risks between the Managing Board, country management, and the Group Insurance & Corporate Risk department
- Identification and recording of strategic and long-term risks with the involvement of the relevant Group departments
- Determination of global risk-bearing capacity and risk position
- Standardised and regular reporting at Group and country level
- Promotion of risk culture and risk awareness within the Group through targeted communication and training.

Organisation of risk management



1) Part of the annual audit
2) Legal, Compliance, Tax, IT, Data Protection, Treasury, Corporate Finance, Human Resources, Strategy & Development/M&A, Environmental Social Governance

Risk management process

The Group Insurance & Corporate Risk department sets out the organisational requirements for the risk management system as well as binding guidelines and methods for the internal risk management process in the Risk Management Policy. In order to optimise risk management and incorporate it into the operational plan, we use a software solution across the Group that enables the decentralised recording of risks in the respective countries and Group departments during the year. The software allows us to map the Group structure and assign local responsibilities.

Supported by standardised evaluation schemes for risk assessment, short-term risks are systematically recorded on a quarterly basis and can be tracked over time. The risk data can be consolidated immediately, analysed flexibly, and presented via standardised risk reporting.

In addition to this short-term risk recording, risks with a medium- or long-term time horizon are also taken into account. As well as strategic risks, this medium- and long-term view also concerns climate risks, which according to the definition of the Task Force on Climate-related Financial Disclosures (TCFD) include both physical risks and transition risks. These risks are identified and centrally recorded with regard to any potentially critical economic impact on our company.

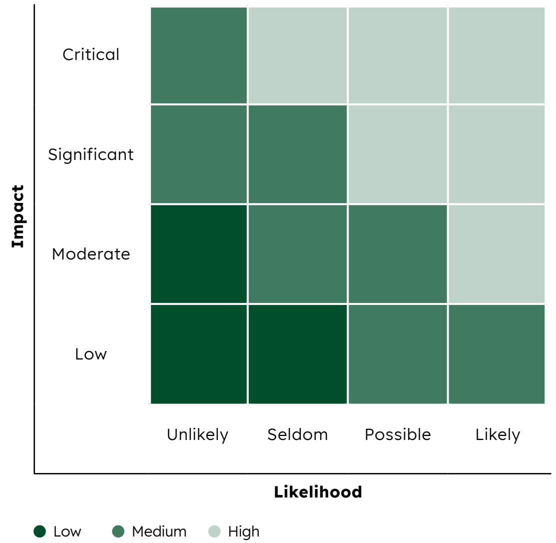
Identification and assessment of risks

The process of identifying risks is performed regularly on a decentralised basis by the country management and by the globally responsible Group departments. General macroeconomic data, other industry-specific risk information sources, and identification tools and techniques serve as auxiliary parameters for the identification process, as does the internal risk catalogue, which records the various financial and non-financial risk categories.

For regular risk reporting during the year, appropriate thresholds have been established for the individual countries, taking into account their specific circumstances. The risks are assessed for each defined risk category with reference to a minimum likelihood of 10% and according to the expected impact. The risks are considered net – i.e. after any risk mitigation measures.

The operational planning cycle of 12 months is used as the base period for estimating the likelihood. The effects on the following key parameters are used as a benchmark to assess potential impact: result from current operations, profit for the financial year, and cash flow. Both dimensions of risk assessment can be visualised by means of a risk map.

Dimensions of risk assessment



The underlying scaling for the short-term risks incorporated into the planning cycle is as follows:

Likelihood

Unlikely	0% to 20%
Seldom	>20% to 40%
Possible	>40% to 60%
Likely	>60% to 100%

Impact	Definition of impact on business activity, financial and earnings position, and cash flow
Low	Negligible negative impact (€10–30 million)
Moderate	Limited negative impact (>€30–120 million)
Significant	Significant negative impact (>€120–300 million)
Critical	Harmful negative impact (>€300 million)

The medium- to long-term strategic risks are reported if the impact exceeds €300 million (gross, before any risk mitigation measures) and their likelihood is at least 20%. These risks are recorded by the Group Strategy and Development/M&A department. In addition, their emergence and annual development are monitored. This includes the physical risks and transition risks associated with climate change.

Risks with a likelihood below 10% that have a potentially critical impact at Group level, known as tail event risks, must also be reported. These are recorded both centrally at Group level and, on an annual basis, separately via the Financial Directors of the countries.

The risk statement also includes risks that do not have a direct impact on the financial situation. ESG risks are typical examples of this category. These non-financial risks have an effect on non-monetary factors such as reputation or strategy. For risks that cannot be quantified directly, the potential impact is assessed according to qualitative criteria from low to critical.

The process of regular identification is supplemented with an ad-hoc risk report in the event of the sudden occurrence of risks or of sudden damage caused. This can arise, in particular, in connection with political events, trends in the financial markets, or natural disasters.

Change compared with the previous year

Financial risks	↑
Strategic risks	
Economic risks	→
Political and social risks	→
Natural disasters/pandemics	↑
Raw material shortages	→
Substitution of products	→
Digitalisation	→
Skills shortages	→
Operational risks	→
Legal and compliance risks	↑
Climate risks	→

↑ Increased → Stable ↓ Decreased

Risk aggregation and reporting

The quantitative, updated risk reports for all business lines in our Group countries are presented to the Managing Board on a quarterly basis within the framework of central management reporting to ensure that risks are monitored in a structured and continuous way. Correlations between individual risks and events are considered at country level as far as possible.

As part of risk aggregation, the Group's overall risk position is determined, which is regularly used to monitor the relationship to the risk-bearing capacity. The risk-bearing capacity represents the maximum risk that might jeopardise a company as a going concern within the meaning of section 91(2) of the German Stock Corporation Act (Aktiengesetz, AktG).

The Group Insurance & Corporate Risk department is responsible for coordinating the risk management processes at Group level. It summarises all significant quantitative and qualitative risks for countries and Group departments in a central risk map at the quarterly management meetings. The current risk situation is communicated to the Managing Board after each management meeting. The Group's consolidated risk report is also presented to the Board once a year. This examines the Group's current risk situation, including the assessment of the current risk-bearing capacity, the global risk landscape, expected future developments, and significant regulatory changes. In addition, reporting to the Supervisory Board is effected every six months.

Management and controlling risks

Country management is responsible for managing risks on a continuous basis and for defining risk control measures. The regular management meetings provide a platform for the Managing Board and responsible country managers to discuss and define risk mitigation measures promptly. Decisions are thus made as to which risks will be intentionally borne independently and which will be transferred to other risk carriers, as well as which measures are suitable for reducing or avoiding potential risks. Costs and benefits are taken into account. Risk controlling includes monitoring the implementation and progress of the agreed measures as well as reviewing them on a regular basis.

Monitoring the risk management process

The Group Internal Audit department examines and assesses the functionality and effectiveness of our risk management to help improve risk awareness. In addition, the auditor carries out an examination of the early risk identification system as part of the final audit in accordance with legal guidelines to determine whether the monitoring system is capable in all material respects of identifying at an early stage any issues that could jeopardise the Group as a going concern. The Managing Board also regularly informs the Supervisory Board and its Audit Committee about the risk situation.

The internal control and risk management system with regard to the Group accounting process

Pursuant to sections 289(4) and 315(4) of the German Commercial Code (HGB), Heidelberg Materials' internal control system includes all principles, processes, and measures intended to ensure the effectiveness, cost efficiency, and accuracy of the accounting and to ensure observance of the relevant legal provisions.

The internal monitoring system at Heidelberg Materials consists of process-independent and process-integrated control measures. The process-integrated auditing activities include controls like the principle of dual control. Process-independent measures are controls carried out by persons not directly involved in the accounting process (e.g. Group Internal Audit).

Structures and processes

The organisational and management structure of HeidelbergCement AG and its Group companies is clearly defined. The responsibilities and functions within the accounting process (e.g. accounting of HeidelbergCement AG and its Group companies, Group Treasury, and Group Reporting, Controlling and Consolidation) are also clearly separated and defined.

Key characteristics of the accounting processes and consolidation

The accounting guideline and a uniform accounting framework, both of which are centrally administered by the Group Reporting, Controlling and Consolidation department, are mandatory for all Group companies and ensure uniform accounting.

Group-wide deadlines set out in a centrally managed financial calendar and instructions pertaining to the financial statements also help to make the accounting process structured, efficient, and uniform across the Group. New laws, accounting standards, and current developments (e.g. in the Group's economic and legal environment) are analysed and taken into account with regard to their relevance and impact on the consolidated financial statements. In the case of accounting issues that are complex or require discretionary judgement, we also call upon the expertise of external service providers.

In most countries, the financial statements of the Group companies are prepared in shared service centers in order to centralise and standardise the accounting processes. Accounting systems from SAP are used in the majority of cases. To prepare the consolidated financial statements, further information is added to the separate financial statements of the Group companies, and these are then consolidated using standardised software developed by SAP. All consolidation adjustments, such as the capital consolidation, the debt consolidation, the expense and income consolidation, and the at equity valuation, are carried out and documented. The various elements that make up the consolidated financial statements, including the Notes, are created entirely from this consolidation programme.

At Heidelberg Materials, the accounts data is checked at both local and central level. The decentralised checking of the local financial statements is carried out by the responsible Finance Director and country controlling. The central checking is undertaken by the Group departments Reporting, Controlling and Consolidation, Tax, and Treasury.

Heidelberg Materials' control system is also supplemented by manual checks, such as regular spot checks and plausibility checks, carried out both locally and centrally. It is supplemented by system-side validations, which are performed automatically by the consolidation program.

Process-independent checks are carried out by the Audit Committee of the Supervisory Board and by the Group Internal Audit department. The latter checks the internal control system for the structures and processes described and monitors application of the accounting guidelines and accounting framework. The results of the check are reported to the Managing Board and the Audit Committee of the Supervisory Board.

Measures for identifying, assessing, and limiting risks

In order to identify and assess risks, individual business transactions at Heidelberg Materials are analysed using the criteria of risk potential, likelihood, and impact. Suitable control measures are then established on the basis of these analyses. To limit the risks, transactions above a certain volume or with a certain complexity are subject to an established approval process. Organisational measures (e.g. separation of functions in sensitive areas) and ongoing target/actual comparisons are also performed for key accounting figures. The IT systems used for accounting are protected from unauthorised access by appropriate security measures.

The established control and risk management systems are not able to guarantee accurate and complete accounting with absolute certainty. In particular, individual incorrectly made assumptions, inefficient controls, and illegal activities may limit the effectiveness of the internal control and risk management systems employed. Exceptional or complex circumstances that are not handled in a routine manner also entail a latent risk.

The statements made here apply to HeidelbergCement AG and its subsidiaries included in the consolidated financial statements.

Risk areas

Risks that may have a significant impact on our assets, financial, and earnings position are divided into five categories based on the risk catalogue established in the Group: financial risks, strategic risks, operational risks, legal and compliance risks, and climate risks. In the following, we assess only the risk situation of risks that are significant for us.

Financial risks

Our significant financial risks include currency risks, interest rate risks, refinancing/liquidity risks, as well as tax and pension risks. We manage these risks primarily as part of our ongoing business and financing activities and, when required, by using derivative financial instruments. These risk areas are monitored on a continuous basis by the Group Treasury department in accordance with internal Group guidelines, which also define the work and processes of Group Treasury. All Group companies must identify their risks on the basis of these guidelines and, if necessary, hedge them in cooperation with Group Treasury.

Currency risks

The most significant risk position with respect to financial risks is the currency risk, particularly the translation risk. Currency risks arise from our foreign currency positions and are characterised by uncertainty in relation to the future development of exchange rates. Economic, monetary, fiscal, and political factors of influence should not be underestimated in this context. Unforeseen events, such as the Russia-Ukraine war since the start of 2022, may lead to distortions in the currency markets and thus have a negative impact on translation and transaction effects. We consider these currency risks, primarily the translation risks, to represent a high risk with a possible likelihood and a significant impact.

Currency risks arising as a result of transactions with third parties in foreign currency (transaction risks) are hedged in certain cases using derivative financial instruments. We primarily use foreign exchange swaps and currency forwards for this purpose. Through our Group-wide financing and liquidity management measures, the borrowing and investment of liquidity of the subsidiaries lead to currency positions that are hedged by external foreign exchange swap transactions, which are appropriate in terms of maturities and amounts.

In general, we do not hedge currency risks arising from converting the financial statements of foreign individual companies or subgroups (translation risks) because the associated effects are not cash-effective and the influences on the consolidated financial statements are monitored on an ongoing basis. More information on currency risks can be found in the Notes item 10.3.

Interest rate risks

Interest rate risks exist as a result of potential changes in the market interest rate and may lead to a change in fair value in the case of fixed interest-bearing financial instruments and to fluctuations in interest payments in the case of variable interest-bearing financial instruments. Interest rate risks are maintained within the parameters set by the Group's Chief Financial Officer. By using financial instruments, primarily interest rate swaps, we are able to hedge both the risk of fluctuating cash flows and the risk of value fluctuations. A downgrading of our credit rating by the rating agencies or the non-achievement of the key performance indicators defined in the sustainable financing instruments could increase the interest margins of the financial instruments (see **Group financial management section**). As we expect further interest rate hikes by the central banks, we classify the interest rate risk overall as a high risk with a probable likelihood and a moderate impact. More information on interest rate risks can be found in the Notes item 10.3.

Refinancing/liquidity risks

Refinancing/liquidity risks exist when a company is not able to procure the funds necessary to fulfil operational obligations or obligations entered into in connection with financial instruments.

Possible risks from fluctuating cash flows are considered as part of the Group liquidity planning. Assumptions concerning the expected economic cycle harbour particular uncertainties in liquidity planning, which is why we update them on an ongoing basis. In this way, we can – if necessary – initiate the appropriate measures, such as the issue of additional money and capital market securities or the raising of fresh funds in the bank market. To secure our payment obligations, we have access to a long-term syndicated credit line – taking into account sustainability targets – with a volume of €2 billion and a short-term syndicated liquidity credit line with a volume of €0.5 billion. As a result, we have access to substantial amounts of cash and cash equivalents and have thus considerably reduced the refinancing risk. In total, we have €3.4 billion of free liquidity, consisting of cash and cash equivalents, securities, and free credit lines, in our portfolio across the Group (see Liquidity instruments table in the **Group financial management section**). As an additional precautionary measure, a framework for increasing shareholders' equity was decided upon at the 2020 Annual General Meeting. We consider refinancing/liquidity risks in general to be a low risk with a seldom likelihood and a low to significant impact, depending on the capital market situation. More information on liquidity risks can be found in the Notes item 10.3.

Credit risks

Credit risks exist when a contractual partner cannot fulfil its obligations, or at least not within the stipulated period. We minimise the risk position arising from this by diversification and ongoing assessment of the creditworthiness of the contracting parties.

Credit risks from operating activities are monitored continuously as part of our receivables management. In this context, we also pay attention to the creditworthiness of our business partners. In this way – as well as by avoiding concentrations of positions – we are able to minimise the Group's credit risks. We minimise credit risks for our financial investments by only conducting transactions with banks that are particularly creditworthy. We select banks for payment transactions and establish cash pools in exactly the same way. We consider the credit risks as a medium risk with a seldom likelihood and a moderate impact. More information on credit risks can be found in the Notes item 10.3.

Tax risks

We operate in many countries around the world and are subject to the wide range of tax regulations applicable in those countries as well as regular tax audits. Possible risks can arise from changes in local taxation laws or case law and from different or increasingly restrictive interpretations of existing provisions. This applies especially to the rising number of rules and regulations concerning cross-border transactions. These risks can impact our tax expense and income as well as our tax receivables and liabilities and our liquidity. The Tax department continuously monitors the development of the tax risks and, if necessary, takes suitable measures to minimise them. We rate the tax risks as a medium risk with a possible likelihood and a moderate impact.

Pension risks

The financing status of the pension plans could be affected by adverse developments in the capital markets, demographic changes, and increases in pension benefits. In North America, Heidelberg Materials is involved in various defined contribution pension plans for unionised employees (multi-employer pension plans). If one of the participating companies no longer pays contributions into the pension plan, all other parties concerned will be held liable for the obligations that have not been covered. Regarding the year 2023, we consider the pension risks as a medium risk with a seldom likelihood and moderate impact. More information on pensions can be found in the Notes item 9.12.

Strategic risks

Strategic risks are usually far-reaching in terms of time horizon and geographical dimension. Some strategic risks are general in nature, while others are industry and company specific. As outlined in the Risk management process section, medium- to long-term strategic risks are reported if the impact exceeds €300 million (gross, before any risk mitigation measures) and their likelihood exceeds 20%. In addition, the potential speed of occurrence is assessed – i.e. whether gradual or rapid occurrence is to be expected. Finally, the change in the estimate in comparison with the previous year is assessed.

The global economic and social environment is subject to constant transformation as a result of worldwide trends such as climate change, globalisation, demographic development, digitalisation, and new technologies. These trends present both risks and opportunities, and their impact on a company depends on its ability to adapt to changes.

Risks arising from the changing trends may have an impact on demand, price levels, and costs in our sales markets and therefore on the company's earnings. In the following, we describe and assess these risks and indicate measures taken to mitigate their impact.

Economic risks

The economic outlook is currently influenced by considerable risks. Following global economic growth of 6.2% in 2021, the IMF's January 2023 forecast anticipates a significant decline in growth to 3.4% for 2022 and 2.9% for 2023. The Russia-Ukraine war, high inflation rates triggered by the sharp rise in energy, raw material, and food prices, as well as an increasingly restrictive monetary policy represent major risks that are negatively impacting economic development.

In the event of a recession and a decrease in construction activity, the Group faces the risk of a decline in demand and price pressure. At the same time, the sharp rise in energy and raw material prices already poses a high risk to the Group's profitability. In addition, growing competition has the potential to increase the pressure on our sales volumes, prices, and customer relationships in the individual Group areas. We classify the economic risks as a general risk with a possible impact on the entire Group and, where applicable, rapid occurrence. Compared with last year, we believe that the risk situation has tightened. Heidelberg Materials can partially mitigate this risk thanks to its diversified country portfolio, which reduces dependence on individual markets.

Political and social risks

Potential turmoil in a political, legal, and social context poses fundamental risks for all companies. Heidelberg Materials operates on five continents and is therefore exposed to global and local political risks, such as nationalisation, trade conflicts, prohibition of capital transfer, terrorism, war, or unrest.

The ongoing Russia-Ukraine war carries the risk of the military confrontation extending beyond the original parties to the conflict and the initial conflict area. The energy and raw materials crisis triggered by the war has also contributed to a sharp rise in the cost of living in large parts of the world, which may lead to social unrest. This could have a significant negative impact on demand and the Group's profitability. In Russia, the risk of nationalisation of private companies has intensified.

Furthermore, geopolitical tensions in Africa as well as in the Middle East and South Asia, and a deterioration in relations between global trading partners, are among the risks that may lead to lower economic growth in the affected regions of the world.

We classify the political and social risks as general risks with a possible impact on individual Group countries and, where applicable, rapid occurrence. Compared with the previous year, we assume an increased risk due to the Russia-Ukraine war and its global impact.

Heidelberg Materials can partially mitigate this risk thanks to its diversified country portfolio, which reduces dependence on individual markets.

Natural disasters/pandemics (exceptional external incidents)

Exceptional external incidents, such as natural disasters or pandemics, could negatively impact our business performance. Possible regulatory requirements in connection with emerging variants of the coronavirus and a low vaccination rate in developing and emerging countries continue to pose a risk to our activities. Thanks to our diversified country portfolio, negative effects in individual countries can be offset.

The compensation limits of our Group-wide property insurance programme guarantee comprehensive coverage against natural disasters, including earthquakes, especially for our activities in heavily endangered regions of North America and Asia. However, we cannot rule out the possibility that the cover may not be sufficient in the event of extreme damage.

We classify natural disasters and pandemics as general risks with a possible impact on individual Group countries or the entire Group. Usually, they have a rapid occurrence. In our assessment, the risk outlook has not changed compared with last year.

Raw material shortages

The scarcity of natural raw materials and the increasing difficulty in renewing mining concessions or obtaining new ones can have an impact on costs and raw material availability and thus significantly affect results of operations.

The procurement of alternative raw materials such as fly ash or blast furnace slag and, in general, the recycling of certain materials could also become critical because of developments in some industries, such as the progressive shutdown of coal-fired power plants or the decline in steel production with correspondingly lower slag availability.

We classify raw material shortages as an industry-specific risk with a possible gradual impact on the entire Group. Compared with last year, we believe the risk outlook has not changed.

Heidelberg Materials mitigates this risk by constantly monitoring global raw material reserves and, at the same time, securing substitute raw materials for its production sites wherever possible (including recycling of materials).

Substitution of products

Heidelberg Materials is closely monitoring the development of alternative binders and, because of the risk that they will replace conventional cement types, is actively researching this area, especially as regards carbon-reduced materials. In view of the current state of knowledge, however, it appears unlikely that such a replacement will take place on a large scale in the next few years.

If the production costs for traditional binders increase considerably, particularly in mature markets, for example as a result of further shortages of carbon emission certificates or the high cost of emissions reduction technologies, alternative binders could become more economically attractive and replace traditional binders provided that they fulfil the high requirements relating to processability and durability.

In the aggregates business, in which we extract and produce sand, gravel, and hard rock in our own quarries, substitution could take place through increasing use of recycled materials. This effect is strengthened by the progressively stricter requirements when renewing existing or applying for new mining concessions for natural raw materials.

In addition, there is a risk that concrete will be replaced by other materials, such as steel, glass, or wood products, in the construction business. Although the use of these alternative materials is increasing to an extent in some countries, this is currently still limited.

Overall, we classify substitution of products as an industry-specific risk with a possible gradual impact on the entire Group. Compared with last year, we believe the risk outlook has not changed.

Digitalisation

The digital transformation is bringing about fundamental changes in the business world. New digital and networked technologies and increasing automation could challenge existing business models and pave the way for new ones.

The digitalisation of the construction and building materials industry is facilitating gradual changes in construction methods and processes, which could also contribute to achieving climate neutrality during the lifetime of a building. It could enable the construction of more energy-efficient and longer-lasting buildings with lower emissions, which could ultimately also have an impact on concrete and cement consumption.

Digitalisation can also increase efficiency and productivity – for example through data analysis in real time from networked systems, predictive maintenance, or better management of inventories and production processes. Insufficient progress in digitalisation could therefore result in a loss of efficiency and competitiveness.

We classify digitalisation as a general risk with a possible impact on the entire Group and gradual occurrence. We anticipate an unchanged risk compared with the previous year.

Heidelberg Materials proactively drives the digital transformation of the Group and invests in technology companies so that it can benefit from new digital developments at an early stage.

Skills shortage

Increasing population ageing in industrialised countries may result in a lack of qualified workers, resulting in lower productivity and higher personnel expenses, ultimately increasing production costs.

In the construction industry, this development could lead to a shift away from personnel-intensive construction on site towards industrial production of prefabricated components and modular construction systems.

In countries with mature markets, the skills shortage can therefore become an industry- and company-specific risk, which has a gradual occurrence. We anticipate an unchanged risk compared with the previous year.

Heidelberg Materials mitigates this risk with personnel development programmes to attract and retain employees (for example, through cross-departmental or transnational career paths). The company is also exploring the possibilities of increased automation, including the use of artificial intelligence.

Other specific risks for the building materials sector

Import risks
Clinker and cement are not transported overland for long distances on account of their heavy weight in relation to the sales price. Internationally, they are traded by sea. If the difference in the price level between two countries, with connection to the sea trade, becomes too high, there is a risk of increased imports.

This risk could arise particularly in countries and regions that are subject to an emissions trading system with high pricing of carbon emissions. While the EU did decide in 2022 to gradually introduce a Carbon Border Adjustment Mechanism (CBAM), for the cement sector among others, this risk continues to exist with regard to carbon pricing, especially between third countries.

Risks from acquisitions, partnerships, and investments
Heidelberg Materials also expands its activities through acquisitions, partnerships, and investments in order to improve its market positions and strengthen its vertical integration.

Possible risks in the case of acquisitions can arise from the integration of employees, processes, technologies, and products. These also include cultural and language barriers as well as an increased level of personnel turnover, which leads to an outflow of knowledge. We counteract these risks by targeted personnel development and an integrative corporate culture, including the creation of local management structures.

Investments can affect the leverage ratio and financing structure. Unforeseen negative business trends can also lead to financial charges from impairments of goodwill.

The success of acquisitions, partnerships, and investments can also be hindered by political restrictions. Heidelberg Materials therefore evaluates the political risk and stability of the region when making investments. In order to minimise financial burdens and risks and better exploit opportunities, Heidelberg Materials can also cooperate with suitable partners, particularly in politically unstable regions.

Operational risks

Operational risks particularly include risks related to the cost development and availability of energy and raw materials. We also take into account regulatory risks associated with environmental constraints, as well as production, quality, and IT risks. Operational risks have increased in comparison with the previous year.

Volatility of energy and raw material prices

For an energy-intensive company such as Heidelberg Materials, price trends in raw materials and energy markets represent a risk. There is a risk that the costs for individual energy sources and raw materials will increase and thus total expenses will be higher in the future than planned.

The Russia-Ukraine war had a significant impact on raw material prices in the 2022 financial year. Prices on the raw materials and energy markets have risen sharply and remain very volatile at a high level. The sanctions against Russia in the financial and energy sectors have contributed to a sharp rise in gas, oil, and electricity prices and are correspondingly increasing the cost risk for Heidelberg Materials.

We minimise the price risks for energy and raw materials by bundling and structuring procurement processes across the Group and securing mining concessions over the long term. We also make increased use of alternative fuels and raw materials as well as renewable energies in order to minimise price risks, while reducing CO_2 emissions. With the help of our various Group-wide programmes for increasing efficiency and continuous improvement, we are decreasing and optimising our consumption of electricity, fuels, and raw materials, which reduces our energy costs in a targeted way.

In the process of setting prices for our products, we aim to pass on increases in the costs of energy and raw materials to our customers. As most of our products are standardised bulk goods for which demand is determined by price rather than other differentiating factors, there is a risk that price increases cannot be passed on or will cause a decline in sales volumes, particularly in markets with excess capacities.

We consider the risk to be a medium to high risk with a high likelihood and a significant impact.

Availability of raw materials and additives

Heidelberg Materials requires considerable quantities of raw materials for cement and aggregates production, which should be ensured mainly by own deposits. There is potential for certain risks in particular locations with regard to obtaining mining concessions. For example, necessary permissions may be refused in the short term or disputes may arise regarding mining fees.

Availability and prices of cementitious materials used in cement manufacturing, such as fly ash and blast furnace slag, which is a by-product of steel manufacturing, are subject to economic fluctuations and therefore entail a cost risk. As global demand for these cementitious materials is increasing, this could lead to shortages.

Ecological factors and environmental regulations for access to raw material deposits are also sources of uncertainty. In some regions of the world, for example in West Africa south of the Sahara, raw materials for cement production are so scarce that cement or clinker needs to be imported by sea. Rising transportation costs and capacity constraints in the port facilities can lead to an increase in product costs.

In addition, the availability of water can pose a risk. Based on a global water-risk study, we have drawn up a Group-wide guideline concerning sustainable water management in the cement, aggregates, and ready-mixed concrete business lines. Back in 2015, we began developing individual water management plans for those plants in regions suffering from water scarcity. The plans include concepts and measures to ensure careful use of scarce water resources and enable local stakeholders to become involved so that the water utilisation concepts support the common good and thus minimise local water risks. We aim to have water management plans in place by 2030 for all plants in regions affected by water scarcity, limited accessibility, poor water quality and climate-related physical water risks.

Heidelberg Materials has adopted the definitions of reserves and resources as set out in the Pan-European Standard for Reporting of Exploration Results, Mineral Resources, and Reserves (PERC Reporting Standard). The implementation of this reporting standard improves management knowledge and decision-making through a harmonised definition of mineral reserves and resources across the Group and a broader consideration of development constraints that influence the availability of raw materials. With a Group policy on reserve and resource management derived from the standard, combined with consistent local processes, we aim to reduce the risk associated with the availability of raw materials. We also seek to mitigate possible supply shortages and price fluctuations in the future by securing long-term supply agreements and developing other sources of supply.

From an operational point of view, we classify the risk of lack of availability of raw materials and additives overall as a low risk with a seldom likelihood and a low impact.

Production-related risks

The cement industry is an asset-intensive industry with complex technology for storing and processing raw materials, additives, and fuels. Because of accident and operating risks, personal injury and material or environmental damage may occur and operations may be interrupted.

Heidelberg Materials' risk transfer strategy sets deductibles for the main insurance programmes that have been adjusted to the size of the Group and are based on many years of failure analyses. Nevertheless, there is still a risk that the insured amounts in the event of damage will be insufficient, particularly in the case of very uncommon and serious types of damage, such as natural disasters. We consider this to be a low risk.

In order to avoid the potential likelihood of damage and the resulting consequences, we rely on various surveillance and security systems in our plants as well as integrated management systems, including high safety standards, and regular checks, maintenance, and servicing. To identify the threat of potential dangers, we provide all employees with appropriate training to raise their risk awareness.

As demand for building materials is heavily dependent on weather conditions, there is also a risk that capacity utilisation may fluctuate and production downtimes may occur. We minimise this risk by establishing locations in different regions, demand-oriented production control, and flexible working time models. In addition, we make use of production downtimes, where possible, to carry out any necessary maintenance work.

Overall, we consider the production-related risks as a low and unlikely risk with a moderate impact.

Quality risks

Building materials are subject to a strict standardisation. If supplied products do not meet the prescribed standards or the customer's quality requirements, we risk losing sales volumes, facing claims for damages, and/or damaging our customer relationships. Heidelberg Materials ensures compliance with the standards at the Group's own and third-party laboratories by means of fine-meshed quality assurance in parallel with every process step as well as final inspections. Quality assurance controls are also carried out by independent experts as part of the extensive quality assurance programmes already in place.

Overall, we consider the quality risks as a low and unlikely risk with a low impact.

Regulatory risks

Changes to the regulatory environment can affect the business activities of Heidelberg Materials. This concerns mainly legal regulations for environmental protection. Tighter environmental regulations could lead to increasing costs, higher demand for investments, or even the closure of production sites. Around 40% of Heidelberg Materials' worldwide clinker production is affected by financial CO_2 regulations such as emissions trading systems and CO_2 taxes.

Since 2005, the EU Emissions Trading System (EU ETS) has been the primary political instrument, acting as a cap-and-trade system for monitoring and reducing greenhouse gas emissions in European industry with ambitious targets for climate protection. Besides the energy sector and refineries, this also affects all energy-intensive industries, which generate around 45% of all European emissions.

The cement industry, like other CO_2-intensive industries featured on the carbon leakage list, has not been affected by the requirement since 2013 to purchase all emission rights by auction. It receives a portion of the emission rights free of charge on the basis of ambitious product-specific benchmarks. At the beginning of the fourth trading period in 2021, the benchmark was significantly reduced in comparison with the third period. At the same time, prices for emission certificates have almost tripled since 2020 and were around €90 at times during 2022. It can be assumed that the price increase will continue in the further course of the fourth trading period. With the adoption of the EU climate protection programme "Fit for 55" (Green Deal), a tightening of the CO_2 emission reduction target within the EU ETS from 43% to 62% compared with 2005 was decided. Alongside other influencing factors such as increased interest from investment funds and speculation in the market and a reduction in the quantity of free allocations to industry, this could be reflected in higher demand for carbon certificates on the market.

Heidelberg Materials is also affected by CO_2 regulations in North America. While the EU ETS assesses emissions from clinker production, the emissions trading systems in North America are based on cement production. In Canada, a nationwide commitment to financial CO_2 regulations has been in place since the adoption of the Greenhouse Gas Pollution Pricing Act in 2018. Heidelberg Materials North America (Lehigh Hanson until 1 January 2023) is affected by emissions trading schemes in Alberta, Ontario, and Quebec, and by CO_2 taxes in British Columbia. Heidelberg Materials North America has drawn up action plans as part of the Group-wide CO_2 roadmap in order to keep its CO_2 emissions below the declining upper limit for free emission rights. This will be achieved, for example, by improving kiln efficiency, using biomass as an alternative fuel, and reducing the clinker ratio.

Other Group countries have announced the introduction of far-reaching CO_2 regulations for the coming years. In the Chinese province of Guangdong, an emissions trading scheme was introduced in July 2021, with annual emission reductions of 1% envisaged since 2022. In Indonesia, a CO_2 tax on coal-fired power plants was introduced. We assume that this tax will be extended to other sectors by 2025. Thailand also continues to introduce CO_2 regulations to reduce national emissions and achieve the Paris climate targets in the coming years.

For Heidelberg Materials locations that are subject to CO_2 regulations and easily accessible for imports, rising production costs lead to the risk of a competitive disadvantage resulting from cement imports from countries without CO_2 regulations. The gradual introduction of a CO_2-related import regulation was established with the Carbon Border Adjustment Mechanism (CBAM) as part of the “Fit for 55” climate protection programme within the EU. This will cover the period from 2026 to 2034 and, according to current information, will affect not only the cement sector but also the iron and steel industries, production of fertilisers, and the aluminium and energy sectors. One of the consequences of the regulation will be the continuous reduction of the free allocation of emission certificates.

With the EU Industrial Emissions Directive 2010/75 for the European cement industry, the limits for dust and ammonia emissions and for nitrogen oxide emissions were significantly tightened for Germany, considerably exceeding EU requirements. Further increases in requirements are likely under the planned revision of the directive. To comply with the environmental regulations, Heidelberg Materials makes high ongoing investments aimed at improving its facilities so as to reduce emissions. Measures concerning climate and emission protection are outlined in the **Non-financial statement chapter** and the **Research and development section**.

We classify the regulatory risks related to CO_2 and other emissions as a high and probable risk with a significant impact.

IT risks

IT systems support our global business processes, communication, sales, logistics, and production. In 2022, we worked with an external advisor to identify and assess the risks for our core systems and define further measures to minimise risks.

There are essentially two main areas of risk: the unavailability of IT systems as a result of failures or human error and the threat posed by deliberately harmful actions by external and internal actors.

Measures to minimise availability risks
To minimise availability-related risks, we use back-up procedures as well as standardised IT infrastructures and processes. In Europe, Asia, and North America, Heidelberg Materials operates its own computer centers for critical IT systems in premises leased from third parties. Should one of these computer centers fail, infrastructure-as-a-service offerings on the cloud are used for recovery. Both the internal computer centers and the cloud services are operated by internal employees at a central operations center in Czechia.

This central operations team keeps all business IT systems up to date and protects them using security mechanisms. As part of the HProduce digitalisation initiative, IT security standards for applications and infrastructure were developed for the cement plants, introduced worldwide in the plants, and transferred to central operations. In addition, a new service was set up to back up computers for the control systems in the smaller sand, gravel, and concrete plants.

Our internal software development teams use agile, iterative processes that focus on identifying and managing risk. For the particularly sensitive use cases that interact with our transactional ERP solutions, small pilot tests are carried out in a structured manner with trusted partners, allowing risks to be identified quickly and dealt with at an early stage of development. Particular attention is paid to building a scalable architecture that can automatically adapt to needs depending on the level of utilisation.

Measures to minimise external and internal cyberattacks
Due to the current geopolitical situation and the increasing prevalence of cyberattacks as a business model, the threat of attack, especially from external sources, is significantly heightened. To counteract this threat level, the Cybersecurity Governance team has been reporting directly to Dennis Lentz, Chief Digital Officer and member of the Managing Board, since December 2022.

The Cybersecurity Governance team is responsible for IT policies and standards worldwide and monitors their compliance and implementation. Continuous security checks based on a structured risk assessment ensure that the Group can respond to changes in the threat level at short notice. Our cybersecurity status is regularly reported to the Managing Board and Supervisory Board, and the action areas for the coming months and years are discussed. In addition, we have established a management cycle for the cybersecurity of the Group countries with more than 70 on-site contact personnel, through which cycle the local risks are regularly identified, assessed, and reduced in consultation with the Group.

Based on a zero trust strategy, we are increasing the security mechanisms in numerous areas. To secure user identities, we have made lasting improvements to the security of our identification mechanisms and have begun to analyse unusual user behaviour using automated methods. To improve the security of our communication networks, compromised network areas are isolated from one another to make it more difficult for attacks and viruses to spread. We expect this to be augmented by a partnership with an external security service provider who will assist us in detecting and then combating attacks.

Overall, the threat level has tightened. We therefore consider the risk of system or application outages as a medium risk (previous year: low risk) with a moderate impact (previous year: moderate impact) and a possible likelihood (unlikely likelihood).

Legal and compliance risks

Our important legal and compliance risks include risks from ongoing proceedings and investigations, as well as risks arising from changes in the regulatory environment and the non-observance of compliance requirements. The ongoing proceedings are being monitored from a legal perspective. In addition, financial provision has been made in accordance with the legislative requirements for possible disadvantages arising from these proceedings.

Asbestos-related claims and environmental damage cases in the USA

Some of our participations in the USA are exposed to particular legal risks and disputes relating to former activities. The most significant of these are asbestos-related claims, which, among other things, allege bodily injury and involve several American subsidiaries. Products containing asbestos were manufactured before these companies belonged to Heidelberg Materials. In the USA, these damage claims are being handled and intensively managed by a team of in-house lawyers in collaboration with insurers and external consultants. The dispute is likely to continue for a few more years because of the complexity of the cases and the peculiarities of the American legal system. Provisions have been formed on the basis of an extrapolation of the claims and reliable estimates of the development of costs over the next 15 years. The damage claims are mostly covered by liability insurances. Therefore, provisions in the consolidated balance sheet are offset by corresponding claims against insurers.

Furthermore, there are a considerable number of environmental and product liability claims against former and existing participations in the USA that relate back to business activities discontinued a long time ago. There is partly insufficient insurance cover for lawsuits and liability loss claims relating to toxic substances such as coal by-products, wood preservatives, or soil contamination. Our subsidiaries may also be charged further fines set by the court in addition to the clean-up costs and the compensation; there is, however, a possibility to settle valid claims for compensation outside of court. Overall, we consider the risks related to environmental damages in North America as a medium risk.

Antitrust proceedings

Over the past few years and again in 2022, Heidelberg Materials has gained experience from a series of antitrust proceedings. These include the now completed investigative proceedings against Italcementi S.p.A. for antitrust violations from the period before Heidelberg Materials took over control, in which a considerable number of private claims for damages are currently being pursued. These experiences motivate us to continuously review and develop intensive internal precautions, particularly regular training initiatives – using electronic training programmes, among others – in order to avoid antitrust violations. At present, we consider the risks from antitrust proceedings as a low risk.

Privatisation and compensation disputes in Egypt

Claims for compensation amounting to US$17 million (plus default interest claims exceeding this amount many times over) from unfulfilled commission claims have been brought against our Egyptian subsidiary Helwan Cement Company S.A.E. (Helwan) before courts in Egypt and California. Helwan is defending itself against these claims. The alleged claims for compensation are said to arise from an exclusive distribution agreement regarding cement exports with The Globe Corporation, California, and its legal successor Tahaya Misr Investment Inc. The claim has been conclusively dismissed in California. In addition, Tahaya Misr Investment Inc. filed a claim with the Egyptian courts against Suez Cement Company S.A.E. (Suez Cement), the majority shareholder of Helwan, for the same content in 2018. For the legal proceedings in Egypt, we think there is a good chance of the same positive outcome as in California.

There are currently suspended lawsuits involving Helwan and our Egyptian subsidiary Tourah Portland Cement Company S.A.E. with regard to the effectiveness of their past privatisations, which took place prior to the acquisition of these companies by the Italcementi Group. The plaintiffs' entitlement to these claims is currently being verified as part of a constitutional court review of a law that allows such claims to be made only by persons directly involved in the privatisation, which does not include the plaintiffs. We assign a low risk to each of these cases and in total a medium risk.

Mining concession in Sweden

In July 2021, the Swedish Land and Environment Court of Appeal annulled a decision of first instance on the granting of a successor permit for the mining concession for limestone in the quarry belonging to the Slite plant, which expired in November 2021. Our Swedish subsidiary Cementa AB has repeated the approval process. An interim concession was granted for the period up to 31 December 2022, allowing temporary continued use of the quarry. A four-year follow-on concession was granted in December 2022, which could have been challenged in court until 3 January 2023. That did not happen. Had the concession been revoked, the Slite plant, as the largest of two cement plants in Sweden, would only have been able to maintain its production temporarily through deliveries of raw materials. As the follow-on concession was in fact not challenged, this risk was eliminated shortly after the 2022 reporting date.

Potential risks due to climate claims

Recent international developments show an increasing number of civil proceedings against CO_2 emitters by private individuals and environmental associations, although the legal basis of such claims is contested. We cannot rule out the possibility that HeidelbergCement AG or Group companies will also face legal action of this kind. The risks arising from such climate-related claims could be high, but cannot be estimated in more detail at present, given the wide variety of potential courses of such claims. The risk assessment is unchanged compared with the previous year.

Sustainability and compliance risks

As part of its sustainable corporate governance, Heidelberg Materials makes a special commitment to protect the environment and climate, preserve resources, conserve biodiversity, and act in a socially responsible way. Compliance with applicable law and Group regulations is a part of our corporate culture and therefore a task and an obligation for all employees. Violations of our self-commitments or of laws and Group guidelines pose direct sanction risks in addition to strategic and operational risks, and also entail a risk to our reputation.

Compliance programme

We have implemented an integrated compliance programme across the Group to ensure conduct that is compliant both with the law and with Group guidelines. Our compliance programme comprises, among other things, the communication of compliance topics via letters and videos, a compliance hotline, and training measures, and it covers, for example, the risk areas of antitrust and competition law, anti-corruption regulations, and human rights. Violations of applicable laws and internal guidelines will be sanctioned. In addition, corresponding corrective and preventive measures will be taken to help prevent similar incidents from arising in the future.

Moreover, we have implemented a Group-wide system for the evaluation and reduction of corruption risks and potential conflicts of interest. A comparable system to assess human rights risks has also been implemented within the Group. These risk analyses in conjunction with supplier risk assessments and other elements of the compliance management system, such as the online and telephone-based reporting system SpeakUp, also serve to prepare for the German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz, LkSG), which is applicable to Heidelberg Materials since January 2023. A human rights organisation has been developed under the leadership of the Group's human rights officer.

To ensure that we comply with the relevant sanctions regulations in the countries in which we are active, in particular those of the EU and the USA, we carry out systematic verification procedures against international sanctions lists. In response to the increased risk posed by complex sanctions regulations following the start of the Russia-Ukraine war, Heidelberg Materials has expanded its screening of business partners. Additional communication and training activities were also carried out.

The results of our compliance risk assessments show a moderate compliance risk for Heidelberg Materials. Based on the compliance cases recorded and confirmed in the reporting year, we assess the financial risk from compliance violations as low.

For further information, see **Non-financial statement chapter**.

Climate risks

According to the definition issued by the Task Force on Climate-related Financial Disclosures (TCFD), climate risks include physical risks and transition risks, which we present below.

Physical risks

Physical climate risks are divided into acute and chronic risks. The potential impact of climate change also depends heavily on global developments such as demographic change, economic growth, and efforts to rapidly reduce the CO_2 concentration in the atmosphere. In its analysis of these physical climate risks, Heidelberg Materials has therefore considered both the current risk potentials and – for the periods to 2030 and 2050 – the recognised scenarios (Representative Concentration Pathways) RCP 2.6 (optimistic), RCP 4.5 (stabilisation), and RCP 8.5 (pessimistic) of the Intergovernmental Panel on Climate Change (IPCC).

One industry-specific risk for Heidelberg Materials is the dependence of construction activities on weather conditions. Harsh winters with extremely low temperatures or high precipitation throughout the year can have a short-term negative effect on construction activity, with direct consequences for our revenue and operating performance.

There are significant geographical variations in climate risks. The impact of extreme weather scenarios, such as floods or droughts, can lead to damage to our production sites, interrupt the supply to our customers, or have adverse effects on the supply of upstream products to our operating units. In 2022, for example, the prolonged dry period in Western Europe caused low water levels, which made delivering raw materials by ship difficult. At the same time, flooding in large parts of Australia led to interruptions in production and supply. We respond to weather scenarios like these in various ways, including by using water-saving production techniques and by optimising our wastewater management. In this context, river flooding is currently a major concern for our business.

We face a similar picture for the period up to 2030. For the majority of the risks, the intensity increases as the concentration of CO_2 in the atmosphere rises, but this is not the case for rainfall stress. In addition to heat and drought, this remains the most significant chronic risk across all scenarios.

For the risks described above, we anticipate a significant increase in potentially affected locations in the period up to 2050 compared with 2030, especially under scenario RCP 8.5. We are monitoring these long-term effects and implementing measures to mitigate risks and adapt to climate change. Our sustainability target of drawing up water management plans for locations in areas affected by water scarcity aims to help us to deal with the consequences of drought and heat.

For the acute risks under consideration, modelling for 2050 for the RCP 4.5 and RCP 8.5 scenarios shows a reduction in the risk of flooding and an increase in the risk of tropical storms.

As we examine future time horizons, it is also worth noting that many risks already exist today and we do not expect any extreme changes in the level of impact. We therefore carried out a more in-depth analysis in 2022 and, based on exposure to risk and strategic importance, identified about 100 plants, which we are now analysing in greater depth. For this purpose, further risks were included in the modelling and made available to the plants. The plants verified the findings and are now developing location-specific adaptation measures for critical risks, including necessary investment plans. We aim to roll out this analysis process to more locations.

Looking at the time horizons to 2030 and 2050, the risk severity of the above-mentioned scenarios increases with the projected absolute greenhouse gas concentration in the atmosphere. Here, too, we see that, especially in the southern hemisphere, heat and the associated health risks pose a danger to our employees and thus to our production operations. We forecast only marginal increases in risk severity for most climate risks. More seriously, however, we expect changes due to droughts and dry conditions: according to forecasts, some locations previously at low risk of drought will become high-risk locations between 2030 and 2050.

Transition risks

We have identified the following risks as the most important for Heidelberg Materials during the global structural transition to a low-emission economy. These risks correspond to the breakdown proposed by the TCFD.

Policy and legal risks
In the medium to long term, we see the main risk as being additional climate-related regulations or changes to the design (especially prices) of existing regulatory systems. Cap-and-trade systems carry the risk of high operating costs for the purchase of emission certificates within the regulated countries in the absence of rules ensuring a level playing field around the world for all market participants in an industrial sector. This leads to a clear competitive disadvantage compared with manufacturers from non-regulated countries or from other competing building materials sectors. In 2022, almost 40% of our activities were in countries with a cap-and-trade system or comparable CO_2-related taxes with limited financial impact due to partial offsetting (see also **Regulatory risks section**). Following the adoption of the EU ETS regulation for the fourth trading period starting in 2021, the EU will see a far-reaching tightening of existing and future CO_2 regulations, especially in connection with further ambitions surrounding the EU climate protection programme “Fit for 55.”

Increasing costs connected with the purchase of emission certificates are anticipated for Heidelberg Materials, and the risk of increasing carbon leakage is expected to disadvantage our industrial sector in the EU. To counter these threats, companies and industry associations are in intensive discussions with the European and national authorities to implement the compensation mechanism for cement and clinker imports adopted in December 2022, thus ensuring a level playing field. The purpose of the Carbon Border Adjustment Mechanism (CBAM) is to establish a level playing field between EU manufacturers and importers by 2034. The official start of the CBAM and the gradual reduction in the annual allocation of emission certificates is in 2026. However, importers must report their annual product volumes and direct and indirect emissions from October 2023.

The EU regulates other emissions such as SO_x, NO_x, and particulate matter, and requires that these are to be within or below the limits achieved by the best available technology (BAT). As countries outside the EU also require their emissions to be within the limits set by the EU, we need to adapt our production facilities worldwide.

Technology risks
The main technological risk is the substitution of existing products with lower-emission ones that will be available in sufficient volumes in the future and are currently being tested on the market, primarily in small quantities. This relates in particular to new alternative binder concepts, which in turn could trigger a shift in customer preferences (see also **Market and reputational risks section**). We are actively involved in the research and development of potential new product solutions. The Innovation Hub, which is part of the Sustainability Office, works in cooperation with our customers to develop new solutions in order to compete by offering alternative products.

Another technology risk in the transition to a low-emission economy is investing in processes that may not succeed in the market. This risk exists particularly with new processes such as carbon capture, utilisation, and storage (CCUS), which may not prove to be so efficient in the future, while investment decisions are already required today. Some of the most important future carbon capture technologies for the cement industry, such as direct separation (LEILAC) or oxyfuel technology, are described in the **Research and development section**. Heidelberg Materials has now launched nine industrial-scale carbon capture projects in Europe, the USA, and Canada.

Heidelberg Materials is pursuing a gradual investment approach based on research cooperation with other partners and, wherever possible, also supported by public funding, in order to gain experience with all major carbon capture technologies. On the one hand, this minimises the risk of failed or uneconomic investments and, on the other hand, ensures that Heidelberg Materials gains experience with future-oriented technologies that could be successful in the market. The roll-out costs of new technologies are also considered risks. Current estimates range widely and depend on several factors, such as economies of scale, which influence the final, currently unknown costs of each technology.

Market and reputational risks
One of the biggest market risks results from a possible change in consumer preferences that may occur during the transition to a low-emission economy. Such a change could lead to increased substitution of concrete by other building materials perceived as having a lower carbon footprint.

Another market risk stems from rising costs for raw materials, which could be caused at least in part by the transition to a low-emission economy. We are also seeing an increase in electricity costs, while at the same time the demand for renewable energy is on the rise. As alternative fuels and raw materials are becoming more and more difficult to procure, owing to growing demand on the one hand and declining availability on the other, we expect a cost increase closely linked to rising CO_2 costs. We are working to secure the necessary quantities of alternative fuels and raw materials for our future production, while also exploring opportunities for a long-term supply of renewable energy generated on site at our plants or from specific power purchase agreements (PPAs) with strategic partners.

We regard the changing investor preferences towards sustainable investments in companies with low CO_2 emissions as a further market risk. This trend could lead to increased financing costs (e.g. when issuing corporate bonds) or lower market capitalisation. Furthermore, we envisage the possibility of negative feedback from certain stakeholders should we delay or fail to achieve our sustainability targets, which could create a reputational risk for the company. These risks can be mitigated with open and regular communication.

Overall, we classify climate risks as a general risk with a possible gradual impact on the Group. In our opinion, the risk outlook is stable compared with the previous year.

Opportunity areas

Business opportunities are identified at Group level and at operational level in the individual countries and taken into account as part of the strategy and planning processes. In the opportunities outlined below, we refer to possible future developments or events that can lead to a positive deviation from our forecast. Usually, we do not assess opportunities as their likelihood is difficult to estimate.

Financial opportunities

Exchange rate and interest rate risks described under financial risks are also offset by opportunities that can turn the identified factors of influence to our advantage. Fluctuations in the exchange rates of foreign currencies against the euro thus present both risks and opportunities.

In addition, we see opportunities within our Sustainability-Linked Financing Framework and the associated sustainability-linked financial instruments. These bring our sustainability targets in line with our financing strategy and could help us to appeal to a broader investor base and thus improve refinancing costs. Opportunities also arise from the achievement of the contractually agreed KPIs, since these could have a positive impact on the refinancing costs.

Strategic opportunities

In the medium and long term, as a result of rising population numbers, we particularly see opportunities for growth in demand for our building materials for residential, commercial, and public construction. An increase in prosperity and the ongoing trend of urbanisation, especially in the growth markets of emerging countries, will also drive demand.

We also see particular potential in activities relating to sustainability and digitalisation, which will further develop and transform our core business.

Our aspiration to close the loop in terms of carbon emissions and material streams will enable us to market new products and applications and thus take advantage of the opportunities arising from the increasing demand for sustainable products. The products, product applications, processes, and technologies already developed and under development by Heidelberg Materials for these purposes are described in more detail in the **Operational opportunities** and **Research and development sections** and in the **Non-financial statement chapter**. In addition, rising costs for CO_2 emissions, such as in Europe, may also lead to further consolidation adjustments with regard to existing capacities, with the oldest and least efficient plants being shut down. This could bring about a reduction in excess capacities.

Increasing digitalisation will improve efficiency at Heidelberg Materials, reduce production and administrative costs, and thus improve overall competitiveness. To give an example from cement production: with our digital solution “Planner,” which is part of our HProduce product suite and is already being used in 52 cement plants, we have been able to save millions of euros in energy costs through algorithmically optimised production planning and energy procurement.

We can achieve significant cost reductions and efficiency enhancements by consistently further developing and scaling up the HProduce solutions. The development of new, digital technology solutions, including solutions for our customers, also opens up opportunities to further expand our role in this area and tap into new fields of value creation. Our digital HConnect product suite in particular, which has over 30,000 monthly users, offers excellent opportunities in this regard. In the future, we aim to develop HConnect into a digital sales channel, through which we will offer our customers not only building materials but also digital solutions from our partners – such as Giatec's app-supported sensor technology and AI-based formulation optimisation for the concrete sector. The purpose of these solutions will be to help our customers to increase their efficiency and reduce carbon emissions.

Operational opportunities

Risks from the strong increase in prices for energy, raw materials, and additives are also offset by opportunities. Overall, the development of energy prices could be more advantageous than planned if the supply of coal, shale gas, and oil exceeds demand again and we can fully reflect the increase in costs in our pricing.

Heidelberg Materials is also making greater use of waste materials and by-products from other industries as valuable raw materials and fuels. We aim to increase the proportion of alternative fuels in the fuel mix to 45% by 2030, thereby reducing both CO_2 emissions and our dependence on natural resources and fossil fuels (see also **Non-financial statement chapter**).

The consistent and ongoing implementation of measures to increase efficiency, reduce costs, and improve margins in production, logistics, and distribution is an integral part of our Group strategy. The opportunity exists for all projects to produce higher than anticipated results and margin improvements that exceed previous expectations.

Climate-related opportunities

The cement industry can make a decisive contribution in the transition to a low-emission and climate-resilient global economy. The urbanisation trend and growing world population are expected to increase the demand for cement and concrete. In the medium term, we see opportunities in a growing demand for durable building materials produced using resource-efficient processes for the construction of resilient infrastructure. With the increasing likelihood of extreme weather events and natural disasters, such as flooding and sea level rise due to climate change, the importance of robust concrete infrastructure capable of withstanding and protecting against the impacts of such events in the regions affected is growing.

The carbon-reduced concretes from the "Regen" (GGBS) portfolio sold in the United Kingdom are enriched with ground granulated blast furnace slag (GGBS), exhibit favourable sustainability characteristics, and also withstand adverse weather conditions such as storms. Regen GGBS has been used in the construction of the new sea wall in Dawlish on England's south coast, protecting the town and a railway line from flooding.

By 2030, we aim to generate half of our revenue from sustainable products, for which we expect increased demand. More details about our sustainable products and solutions can be found in the **Non-financial statement chapter**.

Our strategic position on climate protection and circularity is validation of our many years of research and the attention we have given to exploring possible uses for recycled concrete. Another focus is on the recarbonation of cement in recycled fractions. The aim of this process called "enforced recarbonation" is to store the same amount of CO_2 in this material as was previously released during the cement production process. The results of our R&D efforts are encouraging, demonstrating a CO_2 uptake potential close to the amount of process greenhouse gases emitted during clinker production. This can contribute immensely to the decarbonisation of the industry, and it gives us the opportunity to access new markets with recarbonated products.

In order to be able to offer climate-neutral cement and concrete in the medium term, we are focusing on carbon capture, utilisation, and storage technology. So far, we have launched nine CCUS projects (including in Brevik in Norway, Slite in Sweden, and Edmonton in Canada), which will gradually go into operation from 2024. With the continuous expansion of our CCUS activities, we expect to reduce costs and increase revenue. Firstly, capturing and storing CO_2 removes the need to purchase emission certificates. The financial effect will increase as we emit less CO_2 and as the price of carbon certificates rises. Secondly, we expect a significant revenue effect in the medium term due to higher sales prices for sustainable products. We anticipate that these two effects will exceed the expected annual investment costs of expanding our CCUS projects.

Assessment of the overall risk and opportunity situation by Group management

The assessment of the Group's overall risk situation is the result of a consolidated examination of all major compound and individual risks. Compared with the previous year, the risks have increased overall due to current political, social, and economic instability as well as the recession expected in some countries as a result of the Russia-Ukraine war.

Overall, the Managing Board is not aware of any risks that might jeopardise the Group as a going concern either independently or in combination with other risks. There has been no notable change in the Group's risk situation between the reporting date and the preparation of the 2022 consolidated financial statements. The company has a solid financial base, and its liquidity situation is comfortable.

With its integrated product portfolio, its positions in growth markets, and its cost structure, Heidelberg Materials considers itself well positioned to overcome any risks that may materialise and benefit from opportunities that arise.

Corporate Governance

Part of the combined management report of the Group and HeidelbergCement AG

Corporate Governance statement

The corporate governance statement for HeidelbergCement AG and the Group in accordance with the provisions of sections 289f and 315d of the German Commercial Code (HGB) includes the declaration of compliance pursuant to section 161 of the German Stock Corporation Act (AktG). It also provides information on corporate governance practices and the functioning of the Managing Board and Supervisory Board, including the corporate governance of the company, the remuneration of the boards, the diversity concept for the Supervisory Board and Managing Board, and the legal requirements for equal participation of women and men in management positions.

Declaration of compliance with the German Corporate Governance Code

On 13 January 2023 and 30 January 2023, the Managing Board and the Supervisory Board submitted the following declaration of compliance pursuant to section 161(1) of the AktG:

Since issuing the last declaration of compliance in January/February 2022, HeidelbergCement AG has complied with all recommendations of the German Corporate Governance Code in the version of 16 December 2019 published by the Federal Ministry of Justice and Consumer Protection in the official section of the Federal Gazette (Bundesanzeiger), with the following exceptions:

- The recommendation in C.4 was not complied with. According to this recommendation, a member of the Supervisory Board who is not a member of any Managing Board of a listed company shall not hold more than five supervisory board mandates at non-group listed companies or comparable functions, with an appointment as chair of the supervisory board being counted twice. The member of the Supervisory Board Fritz-Jürgen Heckmann exceeded this number until his retirement on 12 May 2022. However, this has at no time impaired the fulfilment of his duties as a member of the Supervisory Board of HeidelbergCement AG.

- The recommendation in G.10 is not fully complied with. According to this recommendation, Managing Board members' variable remuneration shall be granted predominantly as share-based remuneration; furthermore, granted long-term variable remuneration components shall be accessible to Managing Board members only after a period of four years. The Managing Board remuneration system of HeidelbergCement AG provides that only the capital market component of the long-term variable remuneration is share-based. The management component of the long-term variable remuneration is already paid out after three years.

  The reason for this deviation is that an exclusively share-based long-term variable remuneration only measures a partial area of the company's success, whereas the long-term variable remuneration granted by HeidelbergCement AG to the members of the Managing Board allows a more comprehensive representation of the long-term success of the company.

- The recommendation in G.13 sentence 2 is not complied with. According to this recommendation, the severance payments shall be taken into account in the calculation of any compensation payments if post-contractual non-compete clauses apply. This is not the case at HeidelbergCement AG.

  The reason for this deviation is that a possible severance payment and a waiting allowance are intended to compensate for different issues in terms of content.

HeidelbergCement AG currently complies with all recommendations of the German Corporate Governance Code in the version of 28 April 2022, which entered into force upon publication in the Federal Gazette (Bundesanzeiger) on 27 June 2022, and will continue to comply with them in the future, with the following exceptions:

- The recommendation in G.10 is not fully complied with. According to this recommendation, Managing Board members' variable remuneration shall be granted predominantly as share-based remuneration; furthermore, granted long-term variable remuneration components shall be accessible to Managing Board members only after a period of four years. The Managing Board remuneration system of HeidelbergCement AG provides that only the capital market component of the long-term variable remuneration is share-based. The management component of the long-term variable remuneration is already paid out after three years.

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Remuneration system and remuneration report

The remuneration system for members of the Managing Board, which was approved by the Annual General Meeting on 6 May 2021, and the resolution also adopted by the Annual General Meeting on 6 May 2021 pursuant to section 113(3) of the AktG on the remuneration of members of the Supervisory Board, are publicly available on the company's **website under Corporate Governance**. The remuneration report and the auditor's report are made publicly available at the same internet address pursuant to section 162 of the AktG. The remuneration report can also be found in the **Remuneration report chapter**.

Information on corporate governance practices

Fundamentals of corporate governance

HeidelbergCement AG is a German public limited company based in Heidelberg. In accordance with the legal regulations, it has three institutions: the Annual General Meeting, the Supervisory Board, and the Managing Board. The tasks and responsibilities of these institutions are primarily based on the AktG and the company's Articles of Association.

As a German public limited company, HeidelbergCement AG is required by law to have a two-tier board system. The Managing Board is responsible for independently managing the Group; its members are jointly accountable for the management of the Group; the Chairman of the Managing Board coordinates the work of the members of the Managing Board. The Supervisory Board appoints the members of the Managing Board for a maximum period of five years (in the case of an initial appointment, usually for a maximum of three years) and extends their appointment if necessary; they may only be removed from office prematurely for good cause. The Supervisory Board also monitors and advises the Managing Board and is directly involved in decisions of fundamental importance to the Group; the Chairman of the Supervisory Board coordinates the work of the Supervisory Board.

In line with the options provided for in accordance with the law or the Articles of Association, the shareholders exercise their rights before or during the Annual General Meeting and thereby exercise their voting right. Each share carries one vote at the Annual General Meeting. The ordinary Annual General Meeting is normally held in the first five months of the financial year. In particular, the Annual General Meeting passes resolutions on the use of profit, approval of the actions of the members of the Supervisory Board and Managing Board, the conclusion of inter-company agreements, changes to the Articles of Association, and the approval of the remuneration report. It also elects the shareholder representatives to the Supervisory Board and the auditor. Shareholders are entitled to file motions and have a comprehensive right to speak and ask questions at the Annual General Meeting in accordance with the statutory provisions. In special cases, the AktG provides for the convening of an extraordinary general meeting.

All important documents for exercising shareholder rights as well as the resolution issues and documentation are duly and easily available on our **website** for shareholders to access. Both the notice of the agenda for the Annual General Meeting and our website will provide shareholders with the information they need to exercise their rights, and particularly their voting rights at the Annual General Meeting, including by way of proxy or postal vote. Company proxies bound by instructions are also available to shareholders to exercise their voting rights at the Annual General Meeting. After the end of the Annual General Meeting, the attendance and voting results for the individual agenda items will be published on our website.

Because of the coronavirus pandemic, and using the legal basis established in this regard, the company again held its Annual General Meeting virtually in May 2022. The main reason for doing so was to avoid health risks to shareholders as well as employees, external service providers, and board members. The virtual format led to modifications in the course of the meeting and in the way shareholders' rights were exercised. In particular, physical participation by the shareholders or their authorised representatives was not permitted. However, shareholders had the opportunity to follow the entire Annual General Meeting in real time on the internet. Questions could be submitted electronically beforehand, and these were then answered at the Annual General Meeting. Shareholders or their authorised representatives exercised voting rights exclusively by postal vote or by granting power of attorney and issuing instructions to the proxies appointed by the company.

Internal control and risk management system

Heidelberg Materials is subject to various risks on account of its international business activity. Responsible risk management is an essential component of good corporate governance. The comprehensive and Group-wide risk management system at Heidelberg Materials serves to ensure the early identification, systematic assessment, and targeted management of risks. Heidelberg Materials also has an internal control system that consists of process-independent and process-integrated control measures. Our risk management system and internal control system are used to identify circumstances with the potential to jeopardise the Group. The internal control and risk management system is implemented both at the level of HeidelbergCement AG and across the Group. The Managing Board of HeidelbergCement AG is responsible for fulfilling the obligation to set up the systems and for continuously monitoring their effectiveness. At Heidelberg Materials, the two systems are comprehensive in design and, in addition to an accounting-related component, also include business and purely operational risks and controls, including those associated with our internally defined sustainability targets, which are not directly related to accounting. With regard to the internal control and risk management system's main accounting-related features, there are comprehensive statutory disclosure obligations, which are set out in greater detail at Group level by German Accounting Standard no. 20 (DRS 20). The relevant disclosures and further information about the internal control and risk management system can be found in the **Risk and opportunity report chapter**. The statements made there for the accounting-related components of the internal control and risk management system essentially also apply to the business and operational system components.

Compliance management system

Integrity, legality, and compliance are integral to everyday business at Heidelberg Materials. The company has a compliance management system that is subject to constant further development. In accordance with the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer, IDW) auditing standard 980, the structure of the compliance management system includes compliance culture, targets, risk assessments, and reporting, the compliance programme with guidelines and whistle-blower system, the compliance organisation, communication, training, and controls. Practical implementation in the operating units is the responsibility of the compliance officers of the individual country organisations.

Further information about the compliance management system can be found in the **Non-financial statement chapter**.

Based on its review of the internal control and risk management system, including the compliance management system, and the reporting by Group Internal Audit, the Managing Board is not aware of any circumstances that cast doubt on the adequacy and effectiveness of these systems.

The Managing Board has the quality, adequacy, and effectiveness of the internal control and risk management system, including the compliance management system, regularly monitored and assessed by independent parties, in particular by Group Internal Audit. The latter performs independent objective audit procedures, which, in addition to examining the design and effectiveness of the aforementioned systems, also explore the potential for value and optimisation in the operational processes. In compliance with internationally recognised auditing principles and standards, Group Internal Audit contributes to the evaluation and optimisation of the control and risk management system and the compliance and governance processes. The activities of Group Internal Audit are thus intended to support the company in terms of both reducing risks and strengthening its organisational governance processes and structures.

The Managing Board and the Audit Committee of the Supervisory Board receive regular reports on the audit results. In addition, the Supervisory Board also satisfies itself that the Managing Board has installed an internal control and risk management system appropriate to the business activities and risk situation of the company, as well as a functioning monitoring system within the meaning of section 91(2) of the AktG that is effective and capable of recognising at an early stage any developments that could jeopardise the Group as a going concern. The Supervisory Board also has certified the functionality of the accounting-related internal control system and the early risk identification system by the auditor. Furthermore, the Supervisory Board has satisfied itself of the effectiveness of the compliance management programme, which guarantees Group-wide compliance with law, legality and with internal guidelines.

Code of Business Conduct

A Group-wide Code of Business Conduct requires all employees to observe the basic rules of business decorum – irrespective of whether these rules are prescribed by law or not. Heidelberg Materials' Code of Business Conduct is an important element of our corporate governance and is published on the website under **Governance and compliance**. The Code of Business Conduct is binding on the Managing Board and all employees worldwide. It forms part of Heidelberg Materials' comprehensive compliance programme and its observance is monitored by control mechanisms included in the programme. In particular, the Code of Business Conduct calls for:

- Integrity and professional behaviour towards customers, suppliers, authorities, and other business partners
- Strict compliance with all applicable laws
- Compliance with competition and antitrust law

- The provision of healthy and safe workplaces
- Efforts to combat corruption and the consistent avoidance of conflicts of interest
- The consideration of sustainability and environmental concerns
- The protection of human rights and employee rights, including fair, non-discriminatory employment conditions and fair dialogue with the employee representatives
- Careful and responsible handling of the Group's property and assets
- Careful and responsible handling of company and business secrets as well as personal data

To ensure that the rules of the Code of Business Conduct are understood and observed, all members of the Managing Board and employees must regularly complete an online training programme.

Functioning and composition of the Managing Board, Supervisory Board, and Supervisory Board committees

Managing Board

The Managing Board is the company's managing body and has overall responsibility for corporate governance. In this regard, it is obliged to act exclusively in the Group's best interests within the framework of the law. It takes into account the interests of shareholders, its employees, and other stakeholders with the aim of creating sustainable added value. The Managing Board develops the Group's strategy, coordinates it with the Supervisory Board, and ensures its implementation. It makes sure that all provisions of law and the Group's internal guidelines are adhered to and works to achieve compliance by Group companies. It ensures appropriate risk management and risk controlling within the Group.

The Rules of Procedure for the Managing Board govern, in connection with the schedule of responsibilities, the work of the Managing Board, in particular the departmental responsibilities of individual members of the Managing Board, matters reserved for the full Managing Board, and the required majority for resolutions. In accordance with these rules, each member of the Managing Board runs their management department independently and on their own responsibility, with the provision that all matters of clearly defined fundamental importance are to be decided upon by the full Managing Board. This takes place in the regular meetings of the Managing Board, led by the Chairman of the Managing Board, on the basis of prepared meeting documents. The results of the meetings are recorded in minutes, which are issued to all members of the Managing Board. There are no Managing Board committees. Further details can be found in the Rules of Procedure for the Managing Board on our **website**.

Composition of the Managing Board

There are currently nine members on the Managing Board of HeidelbergCement AG: the Chairman of the Managing Board, the Chief Financial Officer, the two functional members of the Managing Board (Chief Digital Officer and Chief Sustainability Officer), and five members of the Managing Board each in charge of the business in one Group area. The Managing Board is composed of the following persons

Composition of the Managing Board

Name	Responsibility	Year of birth	Initial appointment	Appointed until
Dr Dominik von Achten	Chairman of the Managing Board	1965	2007	31 January 2025
René Aldach	Chief Financial Officer	1979	2021	31 August 2024
Kevin Gluskie	Group area Asia-Pacific	1967	2016	31 January 2024
Hakan Gurdal	Group area Africa-Eastern Mediterranean Basin	1968	2016	31 January 2024
Ernest Jelito	Group area Northern and Eastern Europe-Central Asia	1958	2019	31 December 2023
Dr Nicola Kimm	Chief Sustainability Officer	1970	2021	31 August 2024
Dennis Lentz	Chief Digital Officer	1982	2021	31 August 2024
Jon Morrish	Group area Western and Southern Europe	1970	2016	31 January 2024
Chris Ward	Group area North America	1972	2019	31 August 2028

Further information on the composition of the Managing Board and on the areas of responsibility and mandates of the individual members can be found in the **Boards chapter**. Some personal details can be found in the **Managing Board chapter**.

Diversity concept for the Managing Board

The requirements for filling a Managing Board position include, among others, many years of international experience either in leadership positions in operations at plant or country level or in finance at Heidelberg Materials or in comparable positions at other companies. With the targeted use of programmes for the advancement of future executives, Heidelberg Materials is working at creating a pool of suitable candidates. Subject to the achievement of the below-mentioned target figure for the proportion of women, the Supervisory Board makes no distinction on the basis of gender, origin, or any other characteristics when filling Managing Board positions. It makes its decisions regarding appointments to leadership positions within the company solely on the basis of objective criteria such as professional qualifications (international leadership experience, industry knowledge) and the personal suitability of the relevant person for the actual task. In this context, the Supervisory Board also pays particular attention to an internationally balanced and complementary composition of the Managing Board. This diversity regarding the origin of the members reflects the international and regional positioning of Heidelberg Materials. The diversity concept mentioned above is taken into account in the composition of the Managing Board. The standard retirement age for members of the Managing Board is 65 years.

Long-term successor planning for the Managing Board

With the support of the Managing Board, the Supervisory Board ensures long-term successor planning for the Managing Board. The chairs of the Managing Board and the Supervisory Board are in regular contact for this purpose. In addition, the Supervisory Board's Personnel Committee regularly addresses the issue by discussing the contract durations and renewal options for current members of the Managing Board and consulting on possible successors. In addition to the requirements of the AktG and the German Corporate Governance Code, the target set by the Supervisory Board for the proportion of women on the Managing Board and the criteria in accordance with the diversity concept adopted by the Supervisory Board for the composition of the Managing Board are taken into account. This allows candidates to be identified for the Managing Board at an early stage and prepared for their tasks in a targeted way. Structured discussions are held with these candidates, involving the Supervisory Board's Personnel Committee and, if necessary, supported by external advisors. A recommendation for resolution is then presented to the Supervisory Board.

Cooperation between Managing Board and Supervisory Board

The Managing Board and Supervisory Board cooperate closely for the benefit of the Group. To this end, the Managing Board coordinates the Group's strategic approach with the Supervisory Board and discusses the current state of strategy implementation with it at regular intervals. For clearly defined transactions of fundamental importance, the Supervisory Board has stipulated reservations of consent in the Rules of Procedure for the Managing Board.

The Managing Board informs the Supervisory Board regularly, in a timely manner, and comprehensively, of all issues of importance to the Group with regard to strategy, planning, business development, risk situation, risk management, and compliance. The Managing Board explains deviations of the actual business development from previously formulated plans and targets, indicating the reasons for this. Documents required for decisions, in particular, the annual financial statements, the consolidated financial statements, and the auditors' report, are sent to the members of the Supervisory Board in due time before the meeting. The cooperation between the Managing Board and the Supervisory Board is shaped by mutual trust and a culture of open debate while fully protecting confidentiality.

In the periods between Supervisory Board meetings, the Chairman of the Supervisory Board also maintains regular contact with the Managing Board, especially the Chairman of the Managing Board, to discuss Group issues regarding strategy, planning, business development, risk situation, risk management, and compliance. The Chairman of the Supervisory Board is informed by the Chairman of the Managing Board without delay on important events that are essential for the assessment of the situation and development, as well as for the management of the company.

Supervisory Board

The Supervisory Board of HeidelbergCement AG consists of 12 members. Pursuant to the German Codetermination Law (Mitbestimmungsgesetz, MitbestG), it is composed of an equal number of shareholder representatives and employee representatives. The shareholder representatives are elected by the Annual General Meeting by a simple majority. At HeidelbergCement AG, these elections are held regularly as individual elections. The employee representatives are elected by the employees in accordance with the rules of the MitbestG. Further information on the members of the Supervisory Board and the information required under section 285(10) of the HGB can be found in the **Boards chapter**.

Composition of the Supervisory Board

Shareholder representatives	Employee representatives
Fritz-Jürgen Heckmann (Chairman) (until 12 May 2022)	Heinz Schmitt (Deputy Chairman)
Dr Bernd Scheifele (Chairman) (since 12 May 2022)	Barbara Breuninger
Ludwig Merckle	Birgit Jochens
Tobias Merckle (until 12 May 2022)	Dr Ines Ploss
Luka Mucic	Peter Riedel
Margret Suckale	Werner Schraeder
Dr Sopna Sury (since 12 May 2022)	
Professor Dr Marion Weissenberger-Eibl	

The Supervisory Board advises and supervises the Managing Board in the management of the company. The Managing Board involves the Supervisory Board in all decisions of fundamental importance to the Group directly and at an early stage. The Supervisory Board also appoints the members of the Managing Board. The Supervisory Board and Managing Board Rules of Procedure govern the organisation and work of the Supervisory Board and Managing Board, in particular the required majority for resolutions, the standard retirement age for Managing and Supervisory Board members, the regular limit of length of membership of the Supervisory Board, and the tasks of established committees. Furthermore, the Supervisory Board has defined a catalogue of transactions and measures that require its consent, based on the size and risk profile of the company. The Supervisory Board decides on the granting of consent for significant company transactions with members of the Managing Board or their related parties (related party transactions).

The Supervisory Board meets at least twice every half-year; at these meetings, it usually discusses the open topics and passes the required resolutions, on the basis of reports drawn up by the Managing Board and documents received in advance in preparation for the meeting. Additional or extraordinary meetings are held if necessary. The results of the meetings are recorded in minutes, which are issued to all members of the Supervisory Board. Separate preliminary meetings of the employee representatives are held regularly to prepare for the meetings. The Supervisory Board also meets regularly without the Managing Board. Information on any conflicts of interest of a member of the Supervisory Board and how these are treated is disclosed annually in the Report of the Supervisory Board to the Annual General Meeting.

An onboarding process is in place for new members of the Supervisory Board, which provides them with information relevant to their Supervisory Board activities. If required, they are given an introduction to the legal framework surrounding the Supervisory Board and can also meet with members of the Managing Board and line managers to discuss fundamental and current issues in order to gain an overview of the topics that are relevant to the company. The purpose of this is to familiarise the new members of the Supervisory Board with their rights and obligations as well as the company's business model and the structures at Heidelberg Materials. The members of the Supervisory Board are themselves responsible for obtaining the training required to fulfil their tasks, such as on changes to the legal framework and new, future-oriented technologies, and are supported by the company in this respect. The company also offers specific training sessions – sometimes with external support – for members of the Supervisory Board, most recently in November 2022.

Supervisory Board committees

In accordance with the Articles of Association, the Supervisory Board has set up a total of five committees, which are entrusted with the tasks and functioning described below. The following respective plenary session of the Supervisory Board is given an account of the results of the committee work.

The **Personnel Committee** is responsible for preparing the decision of the Supervisory Board concerning the appointment of members of the Managing Board, for preparing the election of the Chairman of the Managing Board, and for establishing the Managing Board's remuneration structure as well as the remuneration paid to the individual members of the Managing Board. It is also responsible for making a decision concerning the structuring of the non-remuneration-related legal relationships between the company and the members of the Managing Board. The Personnel Committee comprises Mr Ludwig Merckle (Chairman), Mr Fritz-Jürgen Heckmann (until 12 May 2022), Ms Birgit Jochens, Mr Luka Mucic, Dr Ines Ploss, Dr Bernd Scheifele (since 12 May 2022), Mr Heinz Schmitt, Mr Werner Schraeder, and Ms Margret Suckale.

The **Audit Committee** is responsible for preparing the decision of the Supervisory Board concerning the adoption of the annual financial statements and the approval of the consolidated financial statements, including the non-financial statement. It is also responsible for monitoring the accounting process, the effectiveness of the internal control system, the risk management system, the internal audit system, the compliance management system, the audit, and the quality of the audit. When dealing with the audit, it is responsible in particular for the preparation of the Supervisory Board's proposal to the Annual General Meeting for the appointment of the auditor, as part of the selection and proposal procedure provided by law if applicable, for issuing the audit assignment, establishing points of focus for the audit, verifying additional services provided by the auditor in accordance with the guideline adopted by the Audit Committee on 8 November 2016, concluding the fee agreement with the auditor, verifying the auditor's independence including obtaining the auditor's statement of independence, and making the decision concerning measures to be taken if reasons emerge during the audit to warrant the possible disqualification of the auditor or suggest a conflict of interest on the part of the auditor. Furthermore, the Audit Committee discusses the half-year financial report and quarterly statements with the Managing Board before they are published. The Audit Committee monitors the adequacy and effectiveness of the internal process for related party transactions.

The Audit Committee comprises Mr Luka Mucic (Chairman), Mr Ludwig Merckle (Deputy Chairman), Ms Barbara Breuninger, Mr Fritz-Jürgen Heckmann (until 12 May 2022), Mr Peter Riedel, Dr Bernd Scheifele (since 12 May 2022), Mr Heinz Schmitt and Mr Werner Schraeder, and Ms Margret Suckale. The financial experts pursuant to section 100(5) of the AktG are Luka Mucic (Chairman of the Audit Committee), on account of the expertise he has acquired in the areas of accounting and auditing through his professional activity as Chief Financial Officer of SAP SE, and Ludwig Merckle, due to the expertise in the areas of accounting and auditing he has acquired as a result of his professional activity and his long-standing membership of the Audit Committee of HeidelbergCement AG. Both have specialist knowledge and experience in the application of accounting standards and internal control and risk management systems, in auditing, and in sustainability reporting and the auditing thereof.

The **Sustainability and Innovation Committee**, which was newly formed on 12 May 2022, is responsible for advising and monitoring the Managing Board on all aspects of sustainability, particularly in connection with the reduction of the company's carbon footprint and the resulting innovation topics and growth opportunities, digital transformation, and other ESG issues. The Sustainability and Innovation Committee comprises Professor Dr Marion Weissenberger-Eibl (Chairwoman), Mr Ludwig Merckle, Dr Ines Ploss, Mr Peter Riedel and Mr Werner Schraeder, and Dr Sopna Sury.

The **Nomination Committee** is responsible for putting suitable candidates forward to the Supervisory Board for its proposals for election to be made to the Annual General Meeting. It comprises Mr Ludwig Merckle (Chairman), Ms Margret Suckale, and Professor Dr Marion Weissenberger-Eibl as shareholder representatives.

The **Mediation Committee**, formed pursuant to sections 27(3) and 31(3) of the MitbestG, is responsible for making a proposal to the Supervisory Board for the appointment or removal of members of the Managing Board if the necessary two-thirds majority is not initially achieved. It comprises Professor Dr Marion Weissenberger-Eibl (Chairwoman), Mr Fritz-Jürgen Heckmann (until 12 May 2022), Dr Ines Ploss, Dr Bernd Scheifele (since 12 May 2022), and Mr Heinz Schmitt.

Self-assessment of the effectiveness of the work of the Supervisory Board

Every two years, the Supervisory Board carries out the regular self-assessment of the effectiveness of the work of the Supervisory Board and its committees, as required by the German Corporate Governance Code. The last such self-assessment took place in November 2021. The next self-assessment of the Supervisory Board and its committees is scheduled for the 2023 financial year.

Profile of skills, diversity concept, and targets for the composition of the Supervisory Board

Taking into account the recommendations stated in C.1 of the German Corporate Governance Code and in section 289f(2)(6) of the HGB (diversity concept), the Supervisory Board agreed specific objectives regarding its composition and a profile of skills for the Board as a whole. In doing so, the Supervisory Board aims to make a wide range of expertise available to the Group and to have the broadest possible pool of candidates at its disposal for the election of future Supervisory Board members.

Profile of skills

The profile of skills shall ensure that each of the skills and areas of knowledge or technical experience listed below is held by at least one member of the Supervisory Board, so that the Supervisory Board as a whole covers all of the necessary skills:

- Industry knowledge (familiarity with the building materials sector or related industries)
- International management experience (own management activities in an international environment)
- Personnel competencies (experience in the composition of corporate bodies, knowledge of procedures for identifying candidates for relevant positions, experience in/with change management)
- Governance, Legal & Compliance (knowledge of stock corporation and capital markets law, compliance structures and concepts, and corporate governance standards, membership in and leadership of co-determined corporate bodies)

- Accounting, auditing and controlling (experience and expertise in the fields of accounting and auditing, experience in controlling and risk management structures)

- Strategy, capital markets (experience in developing and implementing corporate strategies, M&A experience)

- Sustainability (experience in the field of sustainability and sustainable corporate governance, integration of ambitious sustainability goals into existing business processes as well as corresponding change management, new sustainable technologies and corresponding business models)

- Digitalisation (experience in the digitalisation of existing processes and the development of new digital and data-based business models).

Diversity concept

On the Supervisory Board, the skills listed above should be represented as broadly and in as balanced way as possible. In addition, the in-depth skills of the individual members of the Supervisory Board should complement each other in individual fields. Furthermore, the Supervisory Board shall ensure an appropriate diversity with regard to the age structure and the respective educational and professional background of its members as well as their personal, national and/or international background. Attention shall be paid to the time availability of the Supervisory Board members. The composition of the Supervisory Board shall appropriately reflect the national and international orientation of Heidelberg Materials as a leading building materials manufacturer. The Supervisory Board shall be composed of at least 30% women and at least 30% men.

Independence

The Supervisory Board aims to include at least four shareholder representatives who are independent within the meaning of recommendation C.6 of the German Corporate Governance Code.

Age limit and length of membership

At the time of election, the members of the Supervisory Board shall not be older than 70 years. The standard limit for the length of membership in the Supervisory Board is twelve years.

Status of implementation

The Supervisory Board considers that its current composition corresponds to its specified targets and the profile of skills. Details on the status of implementation of the fulfilment of the profile of skills for the Supervisory Board can be found in the following qualification matrix, which was adopted by the Supervisory Board on the basis of a self-assessment by the individual Supervisory Board members.

Qualification matrix of the Supervisory Board

	Dr Bernd Scheifele[1]	Heinz Schmitt[2]	Barbara Breuninger[2]	Birgit Jochens[2]	Ludwig Merckle[1]	Luka Mucic[1]	Dr Ines Ploss[2]	Peter Riedel[2]	Werner Schraeder[2]	Margret Suckale[1]	Dr Sopna Sury[1]	Professor Dr Marion Weissen-berger-Eibl[1]
Industry knowledge	●	●	●	●	●		●	●	●			●
International management experience	●					●	●			●	●	●
Personnel competencies	●	●	●	●	●	●	●	●	●	●	●	●
Governance, legal & compliance	●	●		●	●	●	●	●	●	●	●	●
Accounting, auditing, and controlling	●	●	●		●	●		●	●	●		
Strategy, capital markets	●	●	●		●	●	●	●	●	●	●	●
Sustainability	●					●	●	●	●	●	●	●
Digitalisation				●	●	●	●	●	●	●		●

1) Shareholder representative
2) Employee representative

In addition, the Supervisory Board ascertained with respect to its composition and the composition of its Audit Committee that all of its members are familiar with the sector in which the company operates.

According to the Supervisory Board's own assessment, the objectives of the diversity concept have been fulfilled. The composition of the Supervisory Board exhibits appropriate diversity with regard to the age structure and the educational and professional backgrounds of its members and reflects the national and international alignment of Heidelberg Materials. There are currently six women on the Supervisory Board, of whom three represent the shareholders and three represent the employees. The proportion of women on the Supervisory Board is thus 50%. The minimum proportion of at least 30% each of women and men on the Supervisory Board, as specified in section 96(2) of the AktG, has therefore been fulfilled.

According to the assessment of the shareholder representatives on the Supervisory Board, all of them (Dr Bernd Scheifele, Ludwig Merckle, Luka Mucic, Margret Suckale, Dr Sopna Sury and Professor Dr Marion Weissenberger-Eibl) are currently regarded as independent within the meaning of the German Corporate Governance Code. In its assessment, the Supervisory Board took into account the fact that Mr Luka Mucic, as a member of the Executive Board of SAP SE, holds a position of responsibility at an external company with which HeidelbergCement AG has a business relationship. However, as the business success of HeidelbergCement AG is not significantly influenced by its business relationship with SAP SE and no other dependency on SAP SE exists, the Supervisory Board considers Mr Mucic to be independent. The Supervisory Board also took into account the fact that Mr Ludwig Merckle has been a member of the Supervisory Board for more than 12 years. In the opinion of the Supervisory Board, this length of membership does not raise any concerns of a conflict of interest on the part of Mr Merckle, as his work in past years has shown that this length of membership does not give cause for any such concern. The standard retirement age and the regular limit of length of membership of the Supervisory Board have been taken into account.

Target figures for the gender balance on the Managing Board and in the two leadership levels below the Managing Board and information on compliance with the minimum proportion of women and men in the composition of the Managing Board and Supervisory Board

The law requires HeidelbergCement AG to define target figures for the proportion of women on the Managing Board and in the two leadership levels below the Managing Board.

On 18 March 2020, the Supervisory Board resolved to set the target figure for the proportion of women on the Managing Board of HeidelbergCement AG as at least one woman for the period from 1 July 2020 to 30 June 2025. In addition, according to the AktG, the Managing Board must have as members at least one woman and at least one man (minimum participation requirement). With Dr Nicola Kimm as a member of the Managing Board, the Supervisory Board's target was achieved ahead of schedule, and the composition of the Managing Board of HeidelbergCement AG thus complies with the above-mentioned legal requirements. The Supervisory Board will continue its efforts to identify suitable women who meet the requirements for filling a position on the company's Managing Board. Independently of this, the Supervisory Board continues to strive to take diversity into account when making personnel decisions.

When filling management positions within the Group, the Managing Board also considers diversity, and in doing so, strives to give due consideration to women. As at 31 December 2022, the proportion of women in leadership positions in Germany was 16% (previous year: 17%) at the first level below the Managing Board and 25% (previous year: 19%) at the second level below the Managing Board. Across both leadership levels, the ratio was 22% as at 31 December 2022. This means that the Managing Board's target of increasing the proportion of women in Germany to 15% for each of the two leadership levels below the Managing Board by the end of June 2022 has already been achieved ahead of schedule. In the reporting year, the Managing Board defined a new, ambitious target for the proportion of women in leadership positions. In Germany, the aim is for the proportion of women to reach 27% for each of the two leadership levels below the Managing Board by 2027.

In 2022, the Managing Board also formulated a global target for the proportion of women in leadership positions of 25% by 2030. The proportion of women in leadership positions across the Group was 14% as at 31 December 2022. Further information can be found in the **Non-financial statement chapter**.

With regard to the statutory minimum proportion of women and men on the Supervisory Board and the implementation of these proportions at HeidelbergCement AG, please refer to the explanations given under **Profile of skills, diversity concept, and targets for the composition of the Supervisory Board**.

Shareholdings of members of the Managing Board and Supervisory Board

The direct or indirect ownership of shares or share-based financial instruments, especially derivatives, by members of the Managing Board is shown in the **Remuneration report chapter** and has not exceeded the threshold of 1% of the issued shares in any individual case or in total.

According to the notifications available to the company, Supervisory Board member Mr Ludwig Merckle holds via Spohn Cement Beteiligungen GmbH, a company under his control, 27.67% of the issued shares. As regards the other members of the Supervisory Board, the ownership of shares or share-based derivatives has not exceeded the threshold of 1% of the issued shares in any individual case or in total, according to the available notifications.

Boards

Managing Board

At present, there are nine members on the Managing Board of HeidelbergCement AG: in addition to the Chairman of the Managing Board and the Chief Financial Officer, there are five members of the Managing Board with regional responsibilities, one member responsible for sustainability and one for digitalisation.

The Managing Board organisation is characterised by dual management responsibility: the operating units in the Group areas fall under the line responsibility of individual members of the Managing Board. In addition, they have each cross-area responsibility for one corporate function with great strategic importance for the Group.

Dr Dominik von Achten

Chairman of the Managing Board
Member of the Managing Board since 2007; Chairman of the Managing Board since 2020; appointed until January 2025

Area of responsibility:
Communication & Investor Relations, Strategy & Development/M&A, Human Resources incl. Health & Safety, Internal Audit, Legal, Compliance

External mandates:
- Kunststoffwerk Philippine GmbH & Co. KG[2)], Lahnstein, and Saarpor Klaus Eckhardt GmbH Neunkirchen Kunststoffe KG[2)], Neunkirchen (jointly meeting advisory board of Philippine Saarpor group)
- Verlag Lensing-Wolff GmbH & Co. KG ("Lensing Media")[2)], Dortmund

René Aldach

Chief Financial Officer
Member of the Managing Board since 2021; appointed until August 2024

Area of responsibility:
Corporate Finance, Data Governance, Procurement, Reporting Controlling & Consolidation & Data Hub, Shared Service Center, Tax, Treasury, Insurance & Risk

Group mandates:
- HeidelbergCement Canada Holding Limited[2)], UK
- HeidelbergCement Holding S.à.r.l.[2)], Luxembourg
- HeidelbergCement UK Holding Limited[2)], UK
- HeidelbergCement UK Holding II Limited[2)], UK
- Italcementi S.p.A[2)], Italy (Deputy Chairman)
- PT Indocement Tunggal Prakarsa Tbk.[2), 3)], Indonesia

Kevin Gluskie

Member of the Managing Board since 2016; appointed until January 2024

Area of responsibility:
Asia-Pacific, Competence Center Readymix

External mandates:
- Alliance Construction Materials Limited[2)], Hong Kong S.A.R.
- Cement Australia Holdings Pty Ltd[2)], Australia (Chairman)
- Cement Australia Pty Limited[2)], Australia (Chairman)
- Cement Australia Partnership[2)], Australia
- China Century Cement Ltd.[2)], Bermuda
- Easy Point Industrial Ltd.[2)], Hong Kong S.A.R.
- Guangzhou Heidelberg Yuexiu Enterprise Management Consulting Company Ltd.[2)], China
- Jidong Heidelberg (Fufeng) Cement Company Limited[2)], China
- Jidong Heidelberg (Jingyang) Cement Company Limited[2)], China
- Squareal Cement Ltd[2)], Hong Kong S.A.R.

Group mandates:
- Asia Cement Public Company Limited[2)], Thailand
- Butra HeidelbergCement Sdn. Bhd.[2)], Brunei Darussalam (Chairman)
- Gulbarga Cement Limited[2)], India
- Hanson Pacific (S) Pte Limited[2)], Singapore
- HeidelbergCement Asia Pte Ltd[2)], Singapore (Chairman)
- HeidelbergCement Bangladesh Limited[2), 3)], Bangladesh (Chairman)
- HeidelbergCement Holding HK Limited[2)], Hong Kong S.A.R.
- HeidelbergCement India Limited[2), 3)], India
- HeidelbergCement Myanmar Company Limited[2)], Myanmar
- Jalaprathan Cement Public Company Limited[2)], Thailand
- PT Indocement Tunggal Prakarsa Tbk.[2), 3)], Indonesia (Chairman)
- Zuari Cement Limited[2)], India (Chairman)

Hakan Gurdal

Member of the Managing Board since 2016; appointed until January 2024

Area of responsibility:
Africa-Eastern Mediterranean Basin, Heidelberg Materials Trading

External mandates:
- Akçansa Çimento Sanayi ve Ticaret A.S.[2), 3)], Turkey (Deputy Chairman)
- CEMZA (PTY) LTD[2)], South Africa
- Continental Blue Investment SA[2)], Switzerland

Group mandates:
- Asment de Temara[2)], Morocco
- Austral Cimentos Sofala SA[2)], Mozambique
- Calcim SA[2)], Benin
- Cimbenin SA[2)], Benin
- CimBurkina S.A.[2)], Burkina Faso
- Ciments du Maroc S.A.[2), 3)], Morocco
- Ciments du Togo SA[2)], Togo
- Ghacem Ltd.[2)], Ghana (Chairman)
- Granuburkina SA[2)], Burkina Faso (Chairman)
- Hanson Israel Limited[2)], Israeli
- Helwan Cement Company[2)], Egypt (Chairman)
- La Cimenterie de Lukala S.A.R.L.[2)], Democratic Republic of the Congo
- La Societe GRANUTOGO SA[2)], Togo (Chairman)
- Scancem Holding AS[2)], Norway (Chairman)
- Scancem International DA[2)], Norway (Chairman)
- Scantogo Mines SA[2)], Togo (Chairman)
- Suez Cement Company S.A.E.[2)], Egypt
- Tourah Portland Cement Company[2)], Egypt
- TPCPLC Tanzania Portland Cement Public Limited Company[2), 3)], Tanzania (Chairman)
- Vassiliko Cement Works SA[2)], Cyprus

Ernest Jelito

Member of the Managing Board since 2019; appointed until December 2023

Area of responsibility:
Northern and Eastern Europe-Central Asia, Competence Center Cement

External mandates:
- CaucasusCement Holding B.V.[2], Netherlands (Chairman)
- Duna-Dráva Cement Kft.[2], Hungary
- Optima Medycyna S.A.[2], Poland (Chairman)

Group mandates:
- Ceskomoravský cement, a.s.[2], Czechia (Chairman)
- Devnya Cement AD[2], Bulgaria (Chairman)
- Górazdze Cement S.A.[2], Poland (Chairman)
- Halyps Building Materials S.A.[2], Greece (Chairman)
- HeidelbergCement Central Europe East Holding B.V.[2], Netherlands (Chairman)
- HeidelbergCement Romania SA[2], Romania
- Heidelberg Materials Northern Europe AB[2], Sweden (Chairman)
- JSC "Cesla"[2], Russia
- Tvornica Cementa Kakanj d.d.[2], Bosnia-Herzegovina
- Vulkan Cement AD[2], Bulgaria (Chairman)

Dr Nicola Kimm

Chief Sustainability Officer
Member of the Managing Board since 2021; appointed until August 2024

Area of responsibility:
Environmental Social Governance (ESG), Research & Development

External mandates:
- Dune TopCo BV[2], Netherlands (until 31 December 2022)
- EQT AB[2, 3], Sweden

Dennis Lentz

Chief Digital Officer
Member of the Managing Board since 2021; appointed until August 2024

Area of responsibility:
Digitalisation, Information Technology

External mandates:
- Giatec Scientific Inc.[2], Canada
- Project Potter Parent GP, LLC[2], Cayman Islands

Group mandates:
- Volt RMC Solutions Canada Ltd.[2], Canada

Jon Morrish

Member of the Managing Board since 2016; appointed until January 2024

Area of responsibility:
Western and Southern Europe, International Associations (e.g. GCCA, CEMBUREAU)

Group mandates:
- Castle Cement Limited[2], UK
- Cimenteries CBR S.A.[2], Belgium
- ENCI Holding N.V.[2], Netherlands
- Hanson Pioneer España, S.L.U.[2], Spain
- Hanson Quarry Products Europe Limited[2], UK
- HeidelbergCement Holding S.à.r.l.[2], Luxembourg
- Italcementi S.p.A[2], Italy (Deputy Chairman)

Chris Ward

Member of the Managing Board since 2019; appointed until August 2028

Area of responsibility:
North America, Competence Center Aggregates & Asphalt

External mandates:
- Project Potter Parent GP, LLC[2], Cayman Islands

Group mandates:
- Cadman Materials, Inc.[2], USA (Chairman)
- Campbell Concrete & Materials LLC[2], USA (Chairman)
- Campbell Transportation Services LLC[2], USA (Chairman)
- Commercial Aggregates Transportation and Sales LLC[2], USA (Chairman)
- Constar LLC[2], USA
- Essroc Holdings LLC[2], USA
- Fairburn Ready-Mix, Inc.[2], USA (Chairman)
- Górazdze Cement S.A.[2], Poland
- Greyrock, LLC[2], USA
- Gulf Coast Stabilized Materials LLC[2], USA (Chairman)
- Hanson Aggregates Midwest, Inc.[2], USA (Chairman)
- Hanson Aggregates New York LLC[2], USA (Chairman)
- Hanson Aggregates Pennsylvania LLC[2], USA (Chairman)
- Hanson Aggregates Southeast LLC[2], USA (Chairman)
- Hanson Aggregates WRP, Inc.[2], USA (Chairman)
- Hanson Building Materials America LLC[2], USA
- Hanson Micronesia Cement, Inc.[2], USA (Chairman)
- Hanson Permanente Cement of Guam, Inc.[2], USA (Chairman)
- Harrell Aggregate Hauling, Inc.[2], USA (Chairman)
- HBMA Holdings LLC[2], USA
- HeidelbergCement Canada Holding Limited[2], UK
- HeidelbergCement UK Holding II Limited[2], UK
- HNA Investments[2], USA
- Jack Cewe Construction Ltd.[2], Canada (Chairman)
- KH 1, Inc.[2], USA
- Lehigh Cement Company LLC[2], USA
- Lehigh Hanson Cement South LLC[2], USA (Chairman)
- Lehigh Hanson Materials Limited[2], Canada (Chairman)
- Lehigh Hanson Materials South LLC[2], USA (Chairman)
- Lehigh Hanson Receivables LLC[2], USA
- Lehigh Hanson Services LLC[2], USA
- Lehigh Hanson, Inc.[2], USA
- Lehigh Northwest Cement Company[2], USA
- Lehigh Northwest Marine, LLC[2], USA (Chairman)
- Lehigh Southwest Cement Company[2], USA (Chairman)
- LHI Duomo Holdings LLC[2], USA
- Sherman Industries LLC[2], USA (Chairman)
- Standard Concrete Products, Inc.[2], USA (Chairman)

The above-mentioned indications refer to 31 December 2022 and have the following meaning:
1) Membership in legally required supervisory boards of German companies
2) Membership in comparable German and foreign supervisory committees of commercial enterprises
3) Publicly listed company

Supervisory Board

According to the Articles of Association, the Supervisory Board of HeidelbergCement AG consists of twelve members. Half of the members shall be elected by the Annual General Meeting according to the provisions of the German Stock Corporation Act and half by the employees according to the provisions of the German Codetermination Law. The term of office for the Supervisory Board started with the conclusion of the Annual General Meeting of 9 May 2019 and ends according to schedule with the conclusion of the ordinary Annual General Meeting in 2024.

Fritz-Jürgen Heckmann

Chairman of the Supervisory Board until 12 May 2022
Stuttgart; Lawyer at the law firm Kees Hehl Heckmann and member of supervisory boards
Member from 8 May 2003 until 12 May 2022; Chairman from 1 February 2005 until 12 May 2022; member of the Personnel, Audit, and Mediation Committees

External mandates:
- HERMA Holding GmbH + Co. KG[2], Filderstadt (Chairman)
- Neue Pressegesellschaft mbH & Co. KG[2], Ulm
- Paul Hartmann AG[1, 3], Heidenheim (Chairman)
- Süddeutscher Verlag GmbH[2], Munich (Chairman)
- Südwestdeutsche Medien Holding GmbH[2], Stuttgart (Chairman)
- Wieland-Werke AG[1], Ulm (Chairman)

Dr Bernd Scheifele

Chairman of the Supervisory Board since 12 May 2022
Heidelberg; former Chairman of the Managing Board of HeidelbergCement AG; Member of various supervisory bodies
Member since 12 May 2022; member of the Personnel, Audit, and Mediation Committees

External mandates:
- PHOENIX Pharma SE[1] (Chairman) and PHOENIX Pharmahandel GmbH & Co KG[2] (Chairman), Mannheim (jointly meeting supervisory board and advisory board, respectively)
- Verlagsgruppe Georg von Holtzbrinck GmbH[1], Stuttgart (Chairman)
- Springer Nature AG & Co. KGaA[1], Berlin

Heinz Schmitt

Deputy Chairman
Heidelberg; Controller; member of the Works Council at the headquarters of HeidelbergCement AG
Member since 6 May 2004; Deputy Chairman since 7 May 2009; member of the Personnel, Audit, and Mediation committees

Barbara Breuninger

Frankfurt; Specialist Strategic Management Personnel Recruiting/Development and Coaching, IG Bauen-Agrar-Umwelt, as well as independent Management Trainer and Consultant
Member since 5 April 2018; member of the Audit Committee

Birgit Jochens

Mainz; Industrial Clerk and State Certified Business Economist; member of the Works Council at the Mainz plant, HeidelbergCement AG
Member since 9 May 2019; member of the Personnel Committee

Ludwig Merckle

Ulm; Managing Director of Merckle Service GmbH[4]
Member since 2 June 1999; Chairman of the Personnel and Nomination committees, Deputy Chairman of the Audit Committee and member of the Sustainability and Innovation Committee

External mandates:
- Kässbohrer Geländefahrzeug AG[1, 4], Laupheim (Chairman)
- PHOENIX Pharma SE[1, 4] (Deputy Chairman) and PHOENIX Pharmahandel GmbH & Co KG[2, 4], Mannheim (jointly meeting supervisory board and advisory board, respectively)

Tobias Merckle

Leonberg; Managing Director of Seehaus e.V.
Member from 23 May 2006 until 12 May 2022

Luka Mucic

Walldorf; Chief Financial Officer of SAP SE (until March 2023)
Member since 9 May 2019; Chairman of the Audit Committee and member of the Personnel Committee

Dr Ines Ploss

Heidelberg; Director Group Procurement of HeidelbergCement AG
Member since 9 May 2019; member of the Personnel, Sustainability and Innovation, and Mediation Committees

Peter Riedel

Frankfurt; Department Head – building materials industry at the Federal Executive Committee of IG Bauen-Agrar-Umwelt
Member since 9 May 2019; member of the Audit Committee and Sustainability and Innovation Committee

External mandates:
- Zusatzversorgungskasse der Steine- und Erden-Industrie und des Betonstein-handwerks VVaG – Die Bayerische Pensionskasse (ZVK)[2], Munich

Werner Schraeder

Ennigerloh; Building Fitter; Chairman of the General Works Council of Heidelberg-Cement AG, Chairman of the Works Council at the Ennigerloh plant of Heidelberg-Cement AG and Chairman of the Group Works Council
Member since 7 May 2009; member of the Personnel, Audit, and Sustainability and Innovation Committees

External mandates:
- Berufsgenossenschaft Rohstoffe und chemische Industrie[2], Heidelberg
- Volksbank eG[2], Warendorf

Margret Suckale

Tegernsee; member of supervisory boards
Member since 25 August 2017; member of the Personnel, Audit, and Nomination Committees

External mandates:
- Deutsche Telekom AG[1, 3], Bonn
- DWS Group GmbH & Co. KGaA[1, 3], Frankfurt
- Infineon Technologies AG[1, 3], Neubiberg

Dr Sopna Sury

Willich; Chief Operating Officer Hydrogen and member of the Executive Board of RWE Generation SE
Member since 12 May 2022; member of the Sustainability and Innovation Committee

Professor Dr Marion Weissenberger-Eibl

Karlsruhe; Head of the Fraunhofer Institute for Systems and Innovation Research ISI in Karlsruhe and holder of the Chair of Innovation and Technology Management (iTM) at the Karlsruhe Institute of Technology (KIT)
Member since 3 July 2012; Chairwoman of the Sustainability and Innovation Committee and the Mediation Committee as well as member of the Nomination Committee

External mandates:
- MTU Aero Engines AG[1, 3], Munich

The above-mentioned indications refer to 31 December 2022 – or in case of an earlier retirement from the Supervisory Board of HeidelbergCement AG to the date of retirement – and have the following meaning:
1) Membership in other legally required supervisory boards of German companies
2) Membership in comparable German and foreign supervisory committees of commercial enterprises
3) Publicly listed company
4) Non-listed companies controlled by Ludwig Merckle

Supervisory Board committees

Personnel Committee

- Ludwig Merckle (Chairman)
- Fritz-Jürgen Heckmann (until 12 May 2022)
- Birgit Jochens
- Luka Mucic
- Dr Ines Ploss
- Dr Bernd Scheifele (since 12 May 2022)
- Heinz Schmitt
- Werner Schraeder
- Margret Suckale

Audit Committee

- Luka Mucic (Chairman)
- Ludwig Merckle (Deputy Chairman)
- Barbara Breuninger
- Fritz-Jürgen Heckmann (until 12 May 2022)
- Peter Riedel
- Dr Bernd Scheifele (since 12 May 2022)
- Heinz Schmitt
- Werner Schraeder
- Margret Suckale

Sustainability and Innovation Committee (newly formed on 12 May 2022)

- Professor Dr Marion Weissenberger-Eibl (Chairwoman)
- Ludwig Merckle
- Dr Ines Ploss
- Peter Riedel
- Werner Schraeder
- Dr Sopna Sury

Nomination Committee

- Ludwig Merckle (Chairman)
- Margret Suckale
- Professor Dr Marion Weissenberger-Eibl

Mediation Committee, pursuant to section 27(3) of the German Codetermination Law

- Professor Dr Marion Weissenberger-Eibl (Chairwoman)
- Fritz-Jürgen Heckmann (until 12 May 2022)
- Dr Ines Ploss
- Dr Bernd Scheifele (since 12 May 2022)
- Heinz Schmitt

Consolidated financial statements

Consolidated income statement

€m	Notes	2021	2022
Revenue	7.1	**18,719.9**	**21,095.1**
Change in finished goods and work in progress		66.8	274.4
Own work capitalised		20.0	21.9
Operating revenue		**18,806.7**	**21,391.4**
Other operating income	7.2	517.7	623.8
Material costs	7.3	-7,305.4	-8,961.3
Personnel costs	7.4	-3,108.0	-3,216.7
Other operating expenses	7.5	-5,392.5	-6,359.6
Result from equity accounted investments (REI)	7.6	356.1	261.8
Result from current operations before depreciation and amortisation (RCOBD)		**3,874.7**	**3,739.4**
Depreciation and amortisation		-1,260.5	-1,263.9
Result from current operations		**2,614.2**	**2,475.6**
Additional ordinary income	7.7	775.1	124.9
Additional ordinary expenses	7.7	-294.0	-318.1
Additional ordinary result		**481.1**	**-193.2**
Earnings before interest and taxes (EBIT)		**3,095.3**	**2,282.4**
Interest income		29.1	31.7
Interest expenses	7.8	-220.8	-151.2
Foreign exchange gains and losses		9.8	-98.7
Result from other participations		28.9	12.6
Other financial result	7.9	-48.3	140.3
Financial result		**-201.3**	**-65.3**
Profit before tax from continuing operations		**2,893.9**	**2,217.1**
Income taxes	7.10	-946.7	-485.0
Net income from continuing operations		**1,947.3**	**1,732.0**
Net loss from discontinued operations	7.11	-45.5	-9.1
Profit for the financial year		**1,901.7**	**1,723.0**
Thereof attributable to non-controlling interests		142.8	126.4
Thereof attributable to HeidelbergCement AG shareholders		**1,759.0**	**1,596.6**
Earnings per share – attributable to HeidelbergCement AG shareholders	7.12	**8.91**	**8.45**
Earnings per share – continuing operations		9.15	8.49
Loss per share – discontinued operations		-0.23	-0.05

Consolidated statement of comprehensive income

€m	2021	2022
Profit for the financial year	**1,901.7**	**1,723.0**
Other comprehensive income		
Items not being reclassified to profit or loss in subsequent periods		
Remeasurement of the defined benefit liability (asset)	280.4	13.5
Income taxes	-83.6	-3.4
Defined benefit plans	**196.8**	**10.0**
Net gains/losses arising from equity accounted investments	6.1	9.8
Total	**202.9**	**19.9**
Items that maybe be reclassified subsequently to profit or loss		
Cash flow hedges – change in fair value	33.8	162.7
Reclassification adjustments for gains/losses included in profit or loss	-19.4	-43.9
Income taxes	-2.6	-26.9
Cash flow hedges	**11.8**	**92.0**
Currency translation	1,070.9	127.1
Reclassification adjustments for gains/losses included in profit or loss	-19.6	13.4
Currency translation	**1,051.3**	**140.5**
Net gains/losses arising from equity accounted investments	19.2	-2.6
Total	**1,082.3**	**229.8**
Other comprehensive income	**1,285.2**	**249.7**
Total comprehensive income	**3,187.0**	**1,972.7**
Thereof attributable to non-controlling interests	197.3	99.6
Thereof attributable to HeidelbergCement AG shareholders	2,989.7	1,873.1

Consolidated statement of cash flows

€m	Notes	2021	2022
Net income from continuing operations		1,947.3	1,732.0
Income taxes		946.7	485.0
Interest income/expenses		191.7	119.5
Dividends received	8.1	301.8	209.3
Interest received	8.2	75.0	272.5
Interest paid		-287.6	-211.6
Income taxes paid		-747.3	-359.9
Depreciation, amortisation, and impairment		1,104.9	1,402.3
Other eliminations	8.3	-607.4	-168.0
Cash flow		**2,925.0**	**3,481.3**
Changes in operating assets	8.4	-650.5	-900.0
Changes in operating liabilities	8.4	443.7	95.3
Changes in working capital		**-206.8**	**-804.7**
Decrease in provisions through cash payments		-244.8	-241.1
Cash flow from operating activities – continuing operations		**2,473.4**	**2,435.4**
Cash flow from operating activities – discontinued operations		-77.4	-15.2
Cash flow from operating activities		**2,396.0**	**2,420.2**
Intangible assets		-27.2	-35.1
Property, plant and equipment		-1,484.2	-1,300.1
Government grants		91.9	75.6
Subsidiaries and other business units		-144.8	-63.5
Other financial assets, associates, and joint ventures		-35.0	-487.8
Investments (cash outflow)	8.5	**-1,599.3**	**-1,810.9**
Intangible assets		0.3	0.0
Property, plant and equipment		183.8	144.8
Subsidiaries and other business units		2,004.9	144.8
Other financial assets, associates, and joint ventures		30.1	39.0
Divestments (cash inflow)	8.6	**2,219.1**	**328.7**
Cash flow from investing activities		**619.8**	**-1,482.2**

Consolidated statement of cash flows (Continued)

€m	Notes	2021	2022
Capital repayment to non-controlling interests		-0.5	-1.7
Dividend to HeidelbergCement AG shareholders		-436.5	-458.3
Dividends to non-controlling interests		-181.2	-169.4
Acquisition of treasury shares	8.7	-349.8	-350.0
Decrease in ownership interests in subsidiaries	8.8	2.9	2.7
Increase in ownership interests in subsidiaries	8.8	-102.5	-78.4
Proceeds from bond issuance and loans		1.7	1.9
Repayment of bonds, loans and lease liabilities	8.9	-1,803.8	-1,393.7
Changes in short-term interest-bearing liabilities	8.10	30.0	-92.0
Cash flow from financing activities		**-2,839.7**	**-2,538.9**
Net change in cash and cash equivalents - continuing operations		253.4	-1,585.7
Net change in cash and cash equivalents – discontinued operations		-77.4	-15.2
Net change in cash and cash equivalents		**176.0**	**-1,600.9**
Effect of exchange rate changes		64.8	-60.1
Cash and cash equivalents at 1 January		2,874.3	3,115.1
Cash and cash equivalents at 31 December	8.12	**3,115.1**	**1,454.1**
Reclassification of cash and cash equivalents according to IFRS 5		-0.0	
Cash and cash equivalents presented in the balance sheet at 31 December	8.12	3,115.1	1,454.1

Consolidated balance sheet – Assets

€m	Notes	31 Dec. 2021	31 Dec. 2022
Non-current assets			
Goodwill		8,164.7	8,368.1
Other intangible assets		206.9	209.3
Intangible assets	9.1	**8,371.6**	**8,577.4**
Land and buildings		6,866.8	6,763.6
Plant and machinery		4,511.6	4,354.0
Other operating equipment		869.7	841.0
Prepayments and assets under construction		1,382.7	1,701.9
Property, plant and equipment	9.2	**13,630.8**	**13,660.4**
Investments in joint ventures	7.6	1,281.1	1,743.2
Investments in associates	7.6	583.5	688.3
Financial investments	9.3	148.7	87.5
Loans		92.9	156.2
Derivative financial instruments		16.6	40.3
Deferred taxes	7.10	262.9	268.2
Other non-current receivables and assets	9.4	1,151.2	888.6
Non-current income tax assets		29.0	26.7
Total non-current assets		**25,568.2**	**26,136.8**
Current assets			
Raw materials and consumables		1,112.1	1,330.9
Work in progress		261.6	380.6
Finished goods and goods for resale		819.7	931.4
Prepayments		18.1	26.2
Inventories	9.5	**2,211.4**	**2,669.2**
Current interest-bearing receivables		76.4	98.5
Trade receivables	9.6	1,837.3	2,040.0
Other current receivables and assets	9.4	534.5	602.1
Current income tax assets		147.5	121.9
Current derivative financial instruments		95.2	83.3
Cash and cash equivalents	8.12	3,115.1	1,454.1
Total current assets		**8,017.3**	**7,069.2**
Assets held for sale	7.11	125.4	49.6
Balance sheet total		**33,710.9**	**33,255.6**

Consolidated balance sheet – Equity and liabilities

€m	Notes	31 Dec. 2021	31 Dec. 2022
Equity			
Subscribed share capital	9.7	595.2	579.3
Share premium	9.8	6,225.4	6,241.4
Retained earnings	9.9	10,015.7	10,809.1
Other components of equity	9.10	-1,049.4	-741.9
Treasury shares	9.7	-349.8	-350.0
Total shareholders' equity of HeidelbergCement AG		**15,437.2**	**16,537.9**
Non-controlling interests	9.11	1,222.3	1,086.3
Total equity		**16,659.4**	**17,624.2**
Non-current liabilities			
Bonds payable		5,363.6	5,269.4
Bank loans		262.4	62.6
Other non-current financial liabilities	9.14	906.8	1,001.0
Pension provisions	9.12	908.1	639.1
Deferred taxes	7.10	832.1	886.3
Other non-current provisions	9.13	1,503.0	1,364.5
Other non-current operating liabilities	9.14	50.6	53.6
Non-current income tax liabilities		178.6	208.8
Total non-current liabilities		**10,005.2**	**9,485.2**
Current liabilities			
Bonds payable (current portion)		806.3	52.5
Bank loans (current portion)		474.0	258.6
Other current financial liabilities	9.14	413.2	465.8
Pension provisions (current portion)	9.12	90.5	95.5
Other current provisions	9.13	322.3	276.2
Trade payables	9.14	3,180.4	3,343.1
Other current operating liabilities	9.14	1,541.9	1,429.0
Current income tax liabilities		192.8	225.1
Total current liabilities		**7,021.4**	**6,145.8**
Liabilities associated with assets held for sale	7.11	24.9	0.3
Total liabilities		**17,051.5**	**15,631.3**
Balance sheet total		**33,710.9**	**33,255.6**

Consolidated statement of changes in equity

€m				Other components of equity							
	Subscribed share capital	Share premium	Retained earnings	Cash flow hedge reserve	Asset revaluation reserve	Currency translation	Total other components of equity	Treasury shares	Equity attributable to HeidelbergCement AG shareholders	Non-controlling interests[1]	Total
1 January 2021	**595.2**	**6,225.4**	**8,527.8**	**4.7**	**23.2**	**-2,105.6**	**-2,077.7**		**13,270.8**	**1,277.6**	**14,548.4**
Profit for the financial year			1,759.0						1,759.0	142.8	1,901.7
Other comprehensive income			200.4	13.3		1,017.0	1,030.3		1,230.7	54.5	1,285.2
Total comprehensive income			**1,959.3**	**13.3**		**1,017.0**	**1,030.3**		**2,989.7**	**197.3**	**3,187.0**
Change in consolidation scope										-9.2	-9.2
Change in ownership interests in subsidiaries			-29.2						-29.2	-70.4	-99.7
Change in non-controlling interests with put options			-7.3						-7.3	10.6	3.3
Transfer asset revaluation reserve			1.5		-1.5		-1.5				
Other changes			0.1	-0.6			-0.6		-0.4	-1.2	-1.6
Repayment of capital										-0.5	-0.5
Acquisition of treasury shares								-349.8	-349.8		-349.8
Dividends			-436.5						-436.5	-181.9	-618.4
31 December 2021	**595.2**	**6,225.4**	**10,015.7**	**17.5**	**21.7**	**-1,088.6**	**-1,049.4**	**-349.8**	**15,437.2**	**1,222.3**	**16,659.4**
1 January 2022	**595.2**	**6,225.4**	**10,015.7**	**17.5**	**21.7**	**-1,088.6**	**-1,049.4**	**-349.8**	**15,437.2**	**1,222.3**	**16,659.4**
First-time application IAS 29 Hyperinflation						50.9	50.9		50.9		50.9
1 January 2022 (adjusted)	**595.2**	**6,225.4**	**10,015.7**	**17.5**	**21.7**	**-1,037.7**	**-998.6**	**-349.8**	**15,488.1**	**1,222.3**	**16,710.3**
Profit for the financial year			1,596.6						1,596.6	126.4	1,723.0
Other comprehensive income			18.4	93.3		164.7	258.1		276.5	-26.8	249.7
Total comprehensive income			**1,615.0**	**93.3**		**164.7**	**258.1**		**1,873.1**	**99.6**	**1,972.7**
Change in consolidation scope										0.1	0.1
Change in ownership interests in subsidiaries			-19.8						-19.8	-56.0	-75.8
Change in non-controlling interests with put options			4.0						4.0	-8.4	-4.4
Transfer asset revaluation reserve			1.5		-1.5		-1.5				
Other changes			0.8						0.8		0.8
Repayment of capital										-1.7	-1.7
Acquisition of treasury shares								-350.0	-350.0		-350.0
Cancellation of treasury shares	-16.0	16.0	-349.8					349.8			
Dividends			-458.3						-458.3	-169.5	-627.8
31 December 2022	**579.3**	**6,241.4**	**10,809.1**	**110.8**	**20.2**	**-873.0**	**-741.9**	**-350.0**	**16,537.9**	**1,086.3**	**17,624.2**

1) The accumulated currency translation differences included in non-controlling interests changed in 2022 by €-26.7 million (previous year: 69.1) to €-238.7 million (previous year: -211.9). The total currency translation differences recognised in equity thus amount to €-1,111.7 million (previous year: -1,300.5).

Segment reporting/Part of the Group Notes

Group areas	Western and Southern Europe		Northern and Eastern Europe-Central Asia		North America		Asia-Pacific		Africa-Eastern Mediterranean Basin		Group Services		Reconciliation[1]		Continuing operations	
€m	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**
External revenue	5,503	6,259	3,058	3,577	4,551	4,907	3,098	3,608	1,837	1,991	672	754			18,720	21,095
Inter-Group areas revenue	55	49	25	23	0		28	25	73	118	749	1,029	-930	-1,245		
Revenue	**5,557**	**6,308**	**3,084**	**3,600**	**4,551**	**4,907**	**3,126**	**3,633**	**1,909**	**2,108**	**1,421**	**1,783**	**-930**	**-1,245**	**18,720**	**21,095**
Change to previous year in %		13.5%		16.7%		7.8%		16.2%		10.4%		25.4%				12.7%
Result from equity accounted investments (REI)	41	22	79	35	50	43	163	123	19	35	4	4			356	262
Result from current operations before depreciation and amortisation (RCOBD)	**937**	**908**	**737**	**730**	**1,042**	**1,028**	**670**	**598**	**490**	**464**	**30**	**35**	**-33**	**-22**	**3,875**	**3,739**
as % of revenue (operating margin)	16.9%	14.4%	23.9%	20.3%	22.9%	20.9%	21.4%	16.4%	25.7%	22.0%	2.1%	1.9%			20.7%	17.7%
Depreciation and amortisation	-377	-358	-193	-196	-321	-327	-234	-248	-106	-109	-1	-1	-29	-25	-1,261	-1,264
Result from current operations	**561**	**550**	**544**	**534**	**722**	**700**	**435**	**350**	**384**	**355**	**30**	**34**	**-61**	**-47**	**2,614**	**2,476**
as % of revenue	10.1%	8.7%	17.6%	14.8%	15.9%	14.3%	13.9%	9.6%	20.1%	16.8%	2.1%	1.9%			14.0%	11.7%
Additional ordinary result													481	-193	481	-193
Earnings before interest and taxes (EBIT)													**3,095**	**2,282**	**3,095**	**2,282**
Capital expenditures[2]	**426**	**342**	**172**	**190**	**499**	**464**	**208**	**161**	**109**	**96**	**6**	**7**	**180**	**551**	**1,599**	**1,811**
Segment assets[3]	**5,219**	**5,150**	**2,684**	**2,584**	**8,394**	**8,996**	**4,103**	**4,020**	**1,601**	**1,488**	**1**	**1**			**22,002**	**22,238**
RCOBD as % of segment assets	18.0%	17.6%	27.5%	28.2%	12.4%	11.4%	16.3%	14.9%	30.6%	31.2%	>100%	>100%			17.6%	16.8%
Number of employees as at 31 December[4]	**15,040**	**14,883**	**11,101**	**10,869**	**7,637**	**7,933**	**12,460**	**12,139**	**4,886**	**4,858**	**85**	**99**			**51,209**	**50,780**
Average number of employees[4]	**15,087**	**15,113**	**11,144**	**11,078**	**8,922**	**8,327**	**12,613**	**12,309**	**5,043**	**4,832**	**93**	**93**			**52,902**	**51,752**

1) Reconciliation includes:
a) intra Group revenues = eliminations of intra-Group relationships between the segments
b) results from current operations before depreciation and amortisation / depreciation from corporate functions
c) additional ordinary result and earnings before interest and taxes
2) Capital expenditures = in the segment columns: cash effective investments in property, plant and equipment as well as intangible assets; in the reconciliation column: cash effective investments in non-current financial assets and other business units
3) Segment assets = property, plant and equipment as well as intangible assets
4) Number based on full-time equivalents

Group Notes

1 General information

HeidelbergCement AG is a public limited company based in Germany. The company has its registered office in Heidelberg, Germany. Its address is: HeidelbergCement AG, Berliner Straße 6, 69120 Heidelberg. The company is registered at the Mannheim Local Court (HRB 330082). HeidelbergCement AG is the parent company of the Group operating under the brand name “Heidelberg Materials”.

The core activities of Heidelberg Materials include the production and distribution of cement, aggregates, ready-mixed concrete, and asphalt.

2 Accounting and valuation principles

2.1 Accounting principles

The consolidated financial statements of HeidelbergCement AG (also referred to as “the Group” or “Heidelberg Materials”) as at 31 December 2022 were prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union and the additional requirements of German Commercial Law pursuant to section 315e(1) of the German Commercial Code (Handelsgesetzbuch, HGB). All binding IFRSs for the 2022 financial year adopted into European law by the European Commission, including the interpretations of the IFRS Interpretations Committee (IFRS IC), were applied. The previous year’s figures were determined according to the same principles.

The consolidated financial statements cover the period from 1 January 2022 to 31 December 2022 and are prepared in euro. Unless otherwise stated, all amounts are given in millions of euros (€m). The amounts have been rounded in accordance with standard commercial practise. The financial statements show a true and fair view of the assets, financial, and earnings position of the Heidelberg Materials Group.

In accordance with IAS 1 (Presentation of Financial Statements), the consolidated financial statements contain a balance sheet as at the reporting date, an income statement, a statement of comprehensive income, a statement of changes in equity, and a statement of cash flows in accordance with the principles of IAS 7 (Statement of Cash Flows). The segment reporting is prepared in accordance with the regulations of IFRS 8 (Operating Segments).

For reasons of clarity, some individual items have been combined in the income statement and in the balance sheet. Explanations of these items are contained in the Notes. The income statement classifies expenses according to their nature. To improve the level of information, the additional ordinary result is shown separately in the income statement. This item shows income and expenses that, although occurring in the course of ordinary business activities, are not reported in result from current operations. This includes, in particular, impairment of goodwill, other intangible assets and property, plant and equipment, gains and losses from the disposal of subsidiaries and other business units, expenses from additions to or income from the reversal of provisions for litigation risks, restructuring expenses according to IAS 37, and transaction costs for business combinations and disposals.

2.2 Scope of consolidation

In addition to HeidelbergCement AG, the consolidated financial statements include subsidiaries, joint arrangements, and associates.

Subsidiaries are characterised by the fact that Heidelberg Materials can exercise control over these companies. Control exists when Heidelberg Materials has decision-making power, is exposed to variable returns, and is able to influence the level of the variable returns as a result of the decision-making power. Normally, this is the case when more than 50% of the shares are owned. If contracts or legal regulations stipulate that a company can be controlled despite a shareholding of less than 50%, this company is included in the consolidated financial statements as a subsidiary. If a company cannot be controlled with a shareholding of more than 50% as a result of contracts or legal regulations, this company is not included in the consolidated financial statements as a subsidiary.

In joint arrangements, Heidelberg Materials exercises joint control over a company with one or more parties through contractual agreements. Joint control exists if decisions about the relevant activities of the company must be made unanimously. Depending on the rights and obligations of the parties, joint arrangements may be joint operations or joint ventures. In joint operations, however, the controlling parties have direct rights to the assets and obligations for the liabilities of the jointly controlled operation. Joint ventures are characterised by the fact that the parties that have joint control participate in the net assets of the company by virtue of their position as shareholders.

In associates, Heidelberg Materials has a significant influence on the operating and financial policies of the company. This is normally the case if Heidelberg Materials holds between 20% and 50% of the voting rights in a company.

2.3 Consolidation principles

The capital consolidation of subsidiaries is performed using the acquisition method pursuant to IFRS 3 (Business Combinations). In this process, the acquirer measures the identifiable assets acquired and liabilities assumed at their fair values at the acquisition date. The acquiring entity's investment, measured at the fair value of the consideration transferred, is eliminated against the revalued equity of the newly consolidated subsidiary at acquisition date. The residual positive difference between the fair value of the consideration transferred and the fair value of acquired assets and liabilities is shown as goodwill. A residual negative difference is recognised in profit or loss after further review. Non-controlling interests can be recognised either at their proportionate share of the acquiree's net assets or at fair value. This option can be applied separately for every business combination.

Income and expenses as well as receivables and payables between consolidated companies are eliminated. Profits and losses from intra-Group sales of assets are eliminated. The consequences of consolidation on income tax are taken into account by recognising deferred taxes.

The share of equity and the share of profit or loss for the financial year attributable to non-controlling interests of consolidated subsidiaries are shown separately. In the case of put options held by non-controlling interests, the total comprehensive income attributable to the non-controlling interests as well as the dividend payments to non-controlling interests are shown over the course of the year as changes in equity. At the reporting date, non-controlling interests with a put option were reclassified as financial liabilities. The financial liability is measured at the present value of the redemption amount. Differences between the carrying amount of the non-controlling interests and the present value of the redemption amount are recognised directly in equity. In the case of non-controlling interests in German partnerships, changes in the value of the settlement obligation are recognised in profit or loss in the financial result. In the statement of changes in equity, this is reported in the line Change in non-controlling interests with put options.

In the event of business combinations achieved in stages, Heidelberg Materials achieves control of a company in which it held a non-controlling equity interest immediately before the acquisition date. In this scenario, differences between the carrying amount and the fair value of previously held shares are recognised in profit or loss. Changes in the ownership interest in a subsidiary that do not lead to a loss of control are recognised outside profit or loss as equity transactions. In the case of transactions that lead to a loss of control, any residual interests are revalued at fair value in profit or loss.

In joint operations, the assets, liabilities, income and expenses, as well as cash flows are included pro rata in the consolidated financial statements in accordance with the rights and obligations of Heidelberg Materials.

Joint ventures and associates are accounted for using the equity method. Initially, the acquired investments are recognised at cost. In subsequent years, the carrying amount of the investment is increased or decreased according to the share of Heidelberg Materials in the comprehensive income of the investee. Dividend payments received from investees reduce the carrying amount. Unrealised gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's participation in these companies. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. When the share of losses attributable to Heidelberg Materials in the company in which a participating interest is held equals or exceeds the carrying amount of the investment, no further shares of losses are recognised. If the investee subsequently reports profits, the investor resumes recognising its share of these profits only after the share in profit equals the share of losses not yet recognised.

Subsidiaries, joint operations, joint ventures, and associates that do not have a material impact on the assets, financial, and earnings position of the Group, either individually or collectively, are accounted for at cost less impairment and shown as financial investments.

2.4 Currency translation

The separate financial statements of the Group's foreign subsidiaries are translated into euro pursuant to IAS 21 (The Effects of Changes in Foreign Exchange Rates) using the concept of functional currency. In general, for operating companies, the functional currency is the local currency of the country in which the subsidiary is based, since all foreign subsidiaries are financially, economically, and organisationally independent in the conduct of their business. Assets and liabilities are translated using the middle rates at the reporting date, with equity, in contrast, using the historical exchange rates. The translation differences resulting from this are recognised outside profit or loss in other components of equity through other comprehensive income until the subsidiary is disposed of. The proportionate equity of the foreign joint ventures and associates is translated in accordance with the procedure described for subsidiaries. Income and expenses are translated using average annual exchange rates. The differences arising from the translation at the closing rate are also recognised outside profit or loss in other components of equity through other comprehensive income.

Foreign currency transactions in the companies' separate financial statements are recorded at the spot exchange rate at the date of the transaction. Exchange gains or losses from the measurement of monetary items in foreign currency at the closing rate up to the reporting date are recognised in profit or loss. Exchange differences arising from foreign currency borrowings, to the extent that they are part of a net investment in a foreign operation, form an exception to recognition in profit or loss. They are part of a net investment in a foreign operation if settlement is neither planned nor likely to occur in the foreseeable future. These translation differences are recognised directly in equity via other comprehensive income and only reclassified to profit or loss on disposal of the business. Non-monetary items in foreign currency are recorded at historical exchange rates.

The following table shows the key exchange rates used in the translation of the separate financial statements denominated in foreign currencies into euro.

Exchange rates

		Exchange rates at reporting date		Average exchange rates	
EUR		31 Dec. 2021	**31 Dec. 2022**	2021	**2022**
USD	USA	1.1370	1.0705	1.1830	1.0536
AUD	Australia	1.5647	1.5717	1.5751	1.5169
CAD	Canada	1.4373	1.4506	1.4829	1.3702
GBP	Great Britain	0.8413	0.8853	0.8600	0.8527
INR	India	84.2136	88.1544	87.4508	82.7297
IDR	Indonesia	16,224	16,840	16,970	15,717
MAD	Morocco	10.5061	11.1645	10.6329	10.6861

First-time application IAS 29 Hyperinflation
Turkey has fulfilled the definition of a hyperinflationary country since 30 June 2022. Therefore, IAS 29 (Financial Reporting in Hyperinflationary Economies) was applied retroactively to the activities of our joint venture Akçansa Çimento Sanayi ve Ticaret A.S. with retroactive effect from 1 January 2022, i.e. as if Turkey had always been hyperinflationary. Accordingly, the relevant non-monetary assets and liabilities, equity, and all items of the income statement as at 31 December 2022 have been adjusted using a general price index. The balance sheet items as well as the expenses and income are then translated into the reporting currency euro at the closing rate. The values determined in this way are then included in the consolidated financial statements using the equity method. The previous year's figures were not adjusted because of the initial application in the financial year. The initial retroactive application resulted in an adjustment of the investments in joint ventures and the currency translation reserve of €50.9 million, recognised directly in equity. The effect on the result from equity accounted investments (REI) is of minor importance.

2.5 Recognition and measurement principles

The consolidated financial statements are generally prepared using the historical cost principle. Exceptions to this are derivative financial instruments and certain non-derivative financial assets, which are measured at fair value. Furthermore, the carrying amounts of the assets and liabilities recognised in the balance sheet, which represent the hedged items in fair value hedges and are otherwise accounted at cost, are adjusted as a result of changes in the fair values assigned to the hedged risks. The fundamental recognition and measurement principles are outlined below.

Intangible assets are initially measured at cost. In subsequent periods, intangible assets with a finite useful life are measured at cost less accumulated amortisation and impairment, and intangible assets with an indefinite useful life are measured at cost less accumulated impairment. Intangible assets with a definite useful life are amortised using the straight-line method.

Pursuant to IFRS 3 (Business Combinations), **goodwill** arising from business combinations is not amortised. Instead, goodwill is tested for impairment according to IAS 36 (Impairment of Assets) at least once a year in the fourth quarter after completion of the current operational plan or upon the occurrence of significant events or changes in circumstances that indicate an impairment requirement. In this impairment test, the carrying amount of a group of cash-generating units (CGUs) to which goodwill is allocated is compared with the recoverable amount of this group of CGUs. On the basis of the sales and management structure, a group of CGUs is defined generally as a country or Group area; exceptions are the cross-border Nordic Precast Group and the Mibau Group. As soon as the carrying amount of a group of CGUs to which goodwill is allocated exceeds its recoverable amount, an impairment loss of the allocated goodwill is recognised in profit or loss. The recoverable amount is the higher of fair value less costs of disposal and the value in use of a group of CGUs. The fair value is the amount obtainable from the sale in an arm's length transaction. The value in use is calculated by discounting estimated future cash flows after taxes with a post-tax risk-adjusted discount rate (weighted average cost of capital – WACC).

Property, plant and equipment are accounted for according to IAS 16 (Property, Plant and Equipment) at cost less accumulated depreciation and impairment. Cost includes all costs that can be attributed to the manufacturing process and appropriate amounts of production overheads. Costs for repair and maintenance of property, plant and equipment are generally expensed as incurred. Capitalisation takes place if the measures lead to an extension or significant improvement of the asset. Property, plant and equipment are depreciated on a straight-line basis unless there is another depreciation method more appropriate for the pattern of use. Scheduled depreciation of property, plant and equipment is determined on the basis of the following Group-wide useful lives.

Useful lives

	Years
Buildings	20 to 40
Technical equipment and machinery	10 to 30
Plant and office equipment	5 to 15

Exploitation land and mineral reserves are amortised using the unit of production method. Borrowing costs that can be allocated directly or indirectly to the construction of large facilities with a creation period of more than 12 months (qualifying assets) are capitalised as part of the cost in accordance with IAS 23 (Borrowing Costs).

Government grants for the acquisition or construction of property, plant and equipment reduce the cost of the respective assets. Investment grants are reported as soon as there is reasonable assurance that the conditions attached to them have been met and that the grants will be received in full. Grants received are reported separately in the cash flow from investing activities. Other expenditure-related grants or subsidies are recognised in profit or loss in the period in which the corresponding expenses to be compensated are recognised.

Leases are accounted for pursuant to IFRS 16 (Leases). According to IFRS 16, the lessee has a fundamental obligation to recognise rights and obligations arising under leases in the balance sheet. Lessees account for the right-of-use asset in the fixed assets as well as a corresponding lease liability.

The lease liability is measured at the present value of the lease payments to be made during the term of the lease. In addition, payments connected with purchase options are taken into account if their exercise is reasonably certain. The lease payments are discounted at the incremental borrowing rate. Lease liabilities are reported in the other financial liabilities. The costs of the right-of-use asset include the initially recognised amount of the lease liability as well as any additional costs connected with the lease. The lease liability is compounded in subsequent periods and reduced by the amount of the lease payments made. The right-of-use assets are depreciated over the term of the underlying lease. If the ownership of the leased asset is transferred to the Group at the end of the lease term or the exercise of a purchase option is included in the cost of the right-of-use asset, the depreciation takes place on the basis of the expected useful life of the underlying leased asset.

In the case of leases for vehicles and ships that contain lease and non-lease components, Heidelberg Materials separates the components so that only the lease components are accounted for in accordance with the regulations of IFRS 16. No right-of-use assets or lease liabilities are recognised for leases with a term of up to 12 months and contracts for low-value assets. The expenditure on these leases is recognised in the period in which it arises in the other operating expenses; the payments are shown under cash flow from operating activities in the statement of cash flows. The same applies to variable lease payments not linked to an index or (interest) rate. Leases for exploitation land do not fall within the scope of IFRS 16. These leases are considered pending transactions and the expenses are recognised in the material costs in the period in which they arise.

Inventories are measured pursuant to IAS 2 (Inventories) at the lower of cost and net realisable value using the weighted average cost method. Adequate provisions are made for risks relating to quality and quantity. Besides direct expenses, the costs for finished goods and work in progress include production-related indirect materials and indirect labour costs, as well as production-related depreciation. The overhead rates are calculated on the basis of the average operating performance rate. Borrowing costs are not recognised as part of the costs because the production period is less than 12 months. Spare parts for equipment are generally reported under inventories. If they were acquired in connection with the acquisition of the equipment, or in a separate acquisition meet the definition of an asset, then they are reported under property, plant and equipment.

Emission rights are reported under raw materials and consumables. Emission rights granted free of charge are initially measured at a nominal value of zero. Emission rights acquired for consideration are accounted for at cost and are subject to write-down in the event of impairment. Provisions for the obligation to return emission rights are recognised if the actual CO_2 emissions up to the reporting date are not covered by emission rights granted free of charge. The amount of the provision for emission rights already acquired for consideration is measured at the carrying amount and, for emission rights yet to be acquired in order to fulfil the obligation, at the market value as at the reporting date.

Treasury shares acquired are recognised at the settlement date at the consideration paid, including any directly attributable additional costs, and are deducted from equity in a separate item until the shares are cancelled, re-issued, or resold. Both the purchase or sale and any subsequent issue or cancellation of treasury shares are recognised directly in equity.

Pension provisions and similar obligations are determined pursuant to IAS 19 (Employee Benefits). For numerous employees, the Group makes provisions for retirement either directly or indirectly through contributions to pension funds. Various post-employment benefit plans are in place, depending on the legal, economic, and tax framework in each country, which are generally based on employees' years of service and remuneration. The pension provisions include those from current pensions and from entitlements from pensions to be paid in the future.

At Heidelberg Materials, the company pension schemes include both defined contribution and defined benefit plans. In defined contribution plans, the Group pays contributions into external funds. After paying the contributions, the Group has no further benefit obligations. In defined benefit plans, the Group's obligation is to provide the agreed benefits to current and former employees. A distinction is made between benefit systems financed by provisions and those financed by funds.

The most significant post-employment benefit plans financed by funds exist in the United Kingdom, the USA, Belgium, Canada, Norway, Indonesia, and Australia. The retirement benefit system in Indonesia consists of a statutory defined benefit plan and a company-based defined contribution plan financed by funds, the benefits from the latter may be set off from the statutory benefits. In Germany, Sweden, and France, the retirement benefit plans are predominantly financed by means of provisions. Heidelberg Materials also has a number of post-retirement medical benefit plans financed by provisions to cover the health care costs of pensioners in the USA, France, Belgium, Morocco, Canada, the United Kingdom, Indonesia, the Democratic Republic of the Congo, Egypt, and Ghana. In addition, the Group grants its employees other long-term employee benefits, such as jubilee benefits, old age part-time arrangements, or early retirement commitments. The Group areas or countries North America, the United Kingdom, and Germany account for around 90% of the defined benefit obligations.

All material defined benefit pension plans in North America have been closed to new entrants, the majority of these have been frozen for future accruals. In North America, a retirement plans committee has been established by Heidelberg Materials to serve as oversight of the pension administration, the fiduciary responsibilities of Heidelberg Materials in relation to the retirement plans, and Heidelberg Materials' role as plan administrator. The regulatory framework for each of the qualified pension plans in the USA has a minimum funding requirement based on the statutory funding objective agreed with the plan administrator. In the USA, the Employee Retirement Income Security Act of 1974 (ERISA) provides the national legal framework. ERISA sets minimum standards for participation, vesting, the funding status of the pension plan, and the accountability of plan fiduciaries. In Canada, the pension plans fall under the jurisdiction of the province of Alberta.

In the United Kingdom, the main defined benefit pension plans operate under UK trust law and under the guidelines of the UK Pensions Regulator. These plans are run by groups of trustees, some of whom are appointed by the sponsoring employer and some of whom are nominated by the plan members. Under UK law, the trustees are obligated to meet the statutory funding objective of having sufficient assets to cover the schemes' technical provisions. Benefits are granted under a number of plans, many of which are final salary plans. All of the main defined benefit pension plans in the United Kingdom are closed to new entrants and to future accruals. As such, the liabilities are expected to trend downwards in the medium to long term as benefits are paid out gradually. Liability-driven investment (LDI) strategies are used extensively, and the pension plans are, in aggregate, overfunded as at the reporting date. As pension benefits in the United Kingdom receive inflationary increases after benefit commencement, these benefits are subject to inflation risk. This risk is mitigated in many cases through the use of LDI products and/or caps on the maximum pension indexation granted. Given the closed nature of main arrangements, the defined benefit obligation in the United Kingdom is only marginally impacted by the salary trend assumption.

In Germany, pension plans operate under the framework of the German Company Pension Law (Betriebsrentengesetz, BetrAVG) and general regulations based on German Labour Law. The main pension plans were closed to new entrants in 2005. Employees hired prior to 2006 continue to earn benefits under these arrangements which are final salary and/or years of service related. In addition, individual pension entitlements have been granted to the members of the Managing Board and to executives. The German pension benefits are largely unfunded.

The liabilities in respect of the benefits granted are subject to the following major risks:

- Discount rate risks in all cases where falling market interest rates could result in a higher present value of the remaining future obligations

- Inflation risks (in particular where benefits are linked to salary, or pension payments are subject to inflation adjustments)

- Asset performance risks in countries where pension plans are funded (such as the United Kingdom and the USA); these risks have been partially mitigated through the use of liability-driven investment strategies

- Longevity risks in cases where benefits would be paid for a longer period in the future than is currently anticipated in the mortality tables used

- Changes to national funding requirements may increase contributions, and changes in national law might also mandate rises in benefits beyond those presently agreed upon

The defined benefit obligations and plan assets are valued annually by independent experts for all major Group companies. The defined benefit obligation and the expenses required to cover these obligations are measured in accordance with the internationally accepted projected unit credit method.

For the purpose of financial reporting, the actuarial assumptions are dependent on the economic situation in each individual country. The interest rate is based on the interest yield achieved on the measurement date for high-quality corporate bonds (AA rating) in the relevant currency with a duration corresponding to the pension plans concerned. In countries or currency areas without a deep market for high-quality corporate bonds, the interest rate is determined on the basis of government bonds or using approximation methods.

Actuarial gains and losses may result from increases or decreases in the present value of the defined benefit obligations. These may be caused by, for example, changes in the calculation parameters or deviations between the actual and expected development of the pension obligations. These amounts, as well as the difference between the actual asset performance and the interest income recognised in profit or loss, and the effect of the asset ceiling are reported in other comprehensive income.

Defined contribution accounting has been applied for certain multi-employer pension plans for which insufficient information is available to apply defined benefit accounting.

Other provisions are recognised in accordance with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets) if, as a result of past events, there are legal or constructive obligations towards third parties that are likely to lead to outflows of resources embodying economic benefits that can be reliably determined. The provisions are calculated on the basis of the best estimate, taking into account all identifiable risks.

The capital market components of the Group-wide virtual stock option plan are accounted for as cash-settled, share-based payment transactions pursuant to IFRS 2 (Share-based Payment). As at the reporting date, a provision is recognised pro rata temporis in the amount of the fair value of the payment obligation. Changes in the fair value are recognised in profit or loss. The fair value of the options is determined using a recognised option price model.

The **current tax expense** is determined according to the local tax regulations in which the respective Group company operates. Local tax liabilities not yet covered by prepayments are presented as non-current or current tax liabilities in the financial statements, depending on the expected cash outflow. Any overpayments are capitalised as current or non-current tax receivables.

Deferred tax assets and liabilities are recognised in accordance with the balance sheet liability method (IAS 12 Income Taxes). This means that deferred taxes are principally recognised for all temporary differences between the IFRS amount and the tax amount. No deferred taxes are recognised for temporary differences from goodwill, unless tax-deductible goodwill exists at the same time. Deferred tax assets are only recognised to the extent that it is probable that taxable income will be sufficiently available in the future. Furthermore, deferred tax assets are recognised on unused tax losses carried forward, to the extent that the probability of their recovery in subsequent years is sufficiently high. Deferred tax liabilities are considered in connection with undistributed profits from subsidiaries, joint ventures, and associates, unless Heidelberg Materials is able to control the dividend policy of the companies and no dividend distribution or disposal is anticipated in the foreseeable future. The deferred taxes are measured using the rates of taxation that, as at the reporting date, are applicable or have been announced as applicable in the individual countries for the period when the deferred taxes are realised. Deferred tax assets and liabilities are offset if there is an enforceable right to set off current tax assets and liabilities and if they relate to income taxes levied by the same taxing authority and the Group intends to settle its current tax assets and liabilities on a net basis. In principle, changes in the deferred taxes in the balance sheet lead to deferred tax expense or income. If circumstances that lead to a change in the deferred taxes are recognised outside profit or loss in other comprehensive income or directly in equity, the change in deferred taxes is also taken into account in other comprehensive income or directly in equity. If deferred taxes were recognised via other comprehensive income, they are also subsequently released via other comprehensive income.

Financial instruments are any contracts that give rise to a financial asset of one entity and a financial liability or equity instrument of another entity. The financial instruments include non-derivative and derivative financial instruments.

The **non-derivative financial assets** include investments in equity instruments and debt instruments. These assets are divided into the amortised cost, fair value through other comprehensive income, and fair value through profit or loss measurement categories when initially recognised, pursuant to IFRS 9 (Financial Instruments).

Investments in equity instruments are in principle measured at fair value. The gains and losses resulting from the subsequent measurement are recognised either in profit or loss or directly in equity through other comprehensive income. For investments in equity instruments that are not held for trading, an individual decision can be made for each participation, when initially recognised, as to whether it is measured at fair value through profit or loss or through other comprehensive income. Investments are generally measured at fair value through profit or loss and are therefore allocated to the financial investment category fair value through profit or loss, provided that there is no significant influence on the investee. If a participation is irrevocably allocated to the category fair value through other comprehensive income, the gains and losses resulting from the subsequent measurement are recognised outside profit or loss in other comprehensive income. After the participation is derecognised, the gains and losses will not be subsequently reclassified from fair value through other comprehensive income to profit or loss. Dividends received from these participations are recognised in profit or loss.

For debt instruments, the initial recognition of a financial asset is at fair value plus transaction costs directly attributable to the acquisition, provided that the financial asset is not measured at fair value through profit or loss. For financial assets recognised at fair value through profit or loss, attributable transaction costs are recognised directly as an expense in profit or loss. The subsequent measurement is based on the cash flow characteristics and the business model in use. Accordingly, Heidelberg Materials divides its debt instruments into the following two measurement categories:

- At amortised cost (AC): Financial assets held for the collection of contractual cash flows that are solely payments of principal and interest are measured at amortised cost. Interest income from these financial assets is recognised in the financial result using the effective interest method. All gains or losses resulting from derecognition, impairment losses, or currency translation are recognised directly in profit or loss. Impairment losses represent probability-weighted estimates of credit losses. They are calculated on the basis of the best available information and the time value of money. Reversals are carried out if the reasons for the impairment losses no longer apply. Financial assets measured at amortised cost include non-current receivables, interest-bearing receivables, trade receivables, and other current operating receivables. In principle, the amortised cost in the case of current financial assets corresponds to the carrying amount.
- Fair value through profit or loss (FVTPL): Financial assets for which the cash flow condition is not met because there are not only payments of principal and interest on the nominal amount outstanding are measured at fair value through profit or loss. Financial assets held for the purpose of sale are also assigned to this measurement category. This category mainly includes trade receivables that are intended for sale in the context of factoring transactions. Changes in the fair value and income from these assets are recognised directly in profit or loss in the period in which they are incurred.

Financial assets are derecognised from the balance sheet at the point in time that the contractual rights to cash flows from the asset expire or the financial asset is transferred. Transferred financial assets are fully derecognised if all risks and rewards are substantially transferred to the acquirer. If the risks and rewards are only partially transferred (risk sharing), the assets continue to be recognised to the extent of the maximum risk retained due to the impossibility of resale.

Financial assets are also derecognised when there is no prospect of recovery, for example if enforcement measures have been unsuccessful, insolvency proceedings have been discontinued due to lack of assets, or the debt has since become statute barred. No further enforcement activities will subsequently be taken.

Non-derivative financial liabilities are initially recognised at the fair value of the consideration received or at the value of the cash received less transaction costs incurred, if applicable. These instruments are subsequently measured at amortised cost, using the effective interest method if applicable. In principle, the amortised cost in the case of current financial liabilities corresponds to the nominal value or the redemption amount. Non-derivative financial liabilities include trade payables, other operating liabilities, and financial liabilities. The Group has not yet made use of the possibility of designating non-derivative financial liabilities, when initially recognised, as financial instruments at fair value through profit or loss.

All non-derivative financial instruments at amortised cost are accounted for at the settlement date, whereas non-derivative financial instruments at fair value through profit or loss are accounted for at the trade date.

At Heidelberg Materials, **derivative financial instruments** are generally used to minimise financial risks and include stand-alone derivatives such as currency, interest rate, and commodity derivatives as well as embedded electricity derivatives.

In principle, embedded derivatives must be separated from the non-derivative host contract and recognised separately if the economic characteristics and risks of the embedded derivative are not closely linked to the economic characteristics and risks of the host contract. Separation is not required if the host contract is a financial asset or if the entire contract is measured at fair value through profit or loss.

Derivative financial instruments are measured at fair value both on their initial accounting on the trade date and in subsequent periods. The valuations are derived from the market or determined using recognised valuation methods (discounted cash flow or option price models). In particular, currency exchange rates, interest rate curves, and raw material prices are used, which can be observed in the corresponding markets. If market prices are no longer available for long-term commodity futures, the prices available on the market are extrapolated for the valuation. Derivatives are recognised as assets if their fair value is positive and as liabilities if their fair value is negative.

Whether changes in fair value are recognised in profit or loss or directly in equity depends on whether the derivative financial instrument is designated as being in an effective hedging relationship (hedge accounting) pursuant to IFRS 9 and the type of the underlying transaction.

Derivative financial instruments held for trading are classified in the category fair value through profit or loss (FVTPL). The changes in fair values are recognised immediately in profit or loss. Within the context of the Group strategy, derivative financial instruments held for trading generally represent an effective hedge in an economic sense, because the changes in the fair values of these derivative financial instruments are principally offset by changes in the fair values of the hedged items.

In **hedge accounting**, in order to avoid volatility in the income statement, the accounting of the hedged item and the hedge of a hedging relationship is modified so that the results of measuring the hedged item or hedge are recognised in the period incurred directly in equity or in profit or loss. Heidelberg Materials uses cash flow hedges and fair value hedges. At the beginning of each hedge, the clear hedging relationship between the hedged item and the hedging instrument as well as the objectives and the risk management strategy are documented and the effectiveness of the hedge is demonstrated. The effectiveness of existing hedges is continuously monitored.

When hedging future cash flows (cash flow hedges), the effective portion of the changes in the fair value of the hedging instrument is recognised directly in equity through other comprehensive income. The ineffective portion of the hedging instrument is recognised immediately in profit or loss. When the hedged item is realised, the amounts recognised in equity are either reclassified directly to the acquisition costs of the hedged item, if this leads to the recognition of a non-financial asset or a non-financial liability, or reclassified to the income statement at the same time that the hedged item is recognised in profit or loss. Heidelberg Materials accounts for the hedging of the currency risk of off-balance sheet firm commitments as a cash flow hedge. In this case, only the spot component is designated as a hedging instrument. The change in the forward component of the currency derivative is recognised in profit or loss in the other financial result.

In the case of fair value hedges of balance sheet items, both the hedging instrument and the effective portion of the hedged portion of the risk of the underlying transaction are measured at fair value. The change in fair value of the hedging instrument and the hedged item are recognised simultaneously in the same item in profit or loss.

Contracts concluded for the purpose of receiving or supplying non-financial items pursuant to Heidelberg Materials' expected purchase, sale, or usage requirements and held as such (own use contracts) are accounted for as pending transactions rather than derivative financial instruments. Written options for the purchase or sale of non-financial items that can be cash-settled are not classified as own use contracts.

Assets held for sale and discontinued operations are shown separately in the balance sheet if they can be sold in their present condition and the sale is highly probable. Assets classified as held for sale are recognised at the lower of their carrying amount and fair value less costs to sell, unless another value is to be recognised under other standards. According to their classification, liabilities directly connected with these assets are shown in a separate line on the liability side of the balance sheet.

For discontinued operations, the net result is shown in a separate line in the income statement. In the statement of cash flows, the cash flows are broken down into continuing and discontinued operations. For discontinued operations, the previous year's figures in the income statement, the statement of cash flows, and the segment reporting are adjusted accordingly in the year of the reclassification. The Notes include additional details on the assets held for sale and discontinued operations.

Contingent liabilities and assets are, on the one hand, possible obligations or assets arising from past events and whose existence depends on the occurrence or non-occurrence of one or more uncertain future events that are not within the Group's control. On the other hand, contingent liabilities are current obligations arising from past events for which there is unlikely to be an outflow of resources embodying economic benefits or where the scope of the obligation cannot be reliably estimated. Contingent liabilities are not included in the balance sheet unless they are current obligations that have been taken on as part of a business combination. Contingent assets are only recognised in the balance sheet if they are virtually certain. Insofar as an outflow or inflow of economic benefits is possible, details of contingent liabilities and assets are provided in the Notes.

Income is recognised when control of a promised good or service is transferred to a customer. It is measured at the fair value of the consideration received or receivable, including variable consideration; sales tax and other duties collected on behalf of third parties are not taken into account.

Heidelberg Materials primarily generates **revenue** from simply structured sales of building materials, such as cement, aggregates, ready-mixed concrete, and asphalt, for which the control is transferred to the customer at a specific point in time. In the context of the sale of the products, separate performance obligations may arise from transport services as well as from services directly related to the sale of the products. These services are generally performed at the time that the control of the products is transferred. In a few exceptional cases, the transport services are performed after the control of the products has been transferred. In accordance with IFRS 15 (Revenue from Contracts with Customers), the revenue relating to these transport services is realised later than the corresponding product revenue. The revenue is measured on the basis of the consideration defined in the contract with a customer, including variable consideration, such as discounts, volume rebates, or other contractual price reductions. The variable consideration is estimated on the basis of the most likely amount. However, variable consideration is only included if it is highly probable that a significant reversal of revenue will not occur once the uncertainty related to the variable consideration is resolved. As the period between the date on which Heidelberg Materials transfers the promised goods or services to the customer and the date on which the customer pays for these goods or services is generally one year or less, no financing components are taken into account. Contract assets and contract liabilities are recognised as soon as one of the contracting parties has commenced performance of the contract. If the right to consideration is unconditional, it is recognised as a trade receivable. Heidelberg Materials grants its customers country- and industry-specific payment terms, which normally include payment within 30 to 60 days after the date of invoicing. Contract assets and contract liabilities are not shown separately in the balance sheet but under other operating receivables and assets and other operating liabilities respectively. They are shown separately in the Notes. Costs directly attributable to obtaining or fulfilling the contract are recognised as an expense when they are incurred, as the amortisation period is generally no longer than one year.

Interest income is recognised pro rata temporis using the effective interest method.

Dividend income is realised when the legal entitlement to payment arises.

3 Application of new accounting standards and other changes

3.1 Initial application of accounting standards in the financial year

In the 2022 financial year, Heidelberg Materials applied the following standards and interpretations of the International Accounting Standards Board (IASB) for the first time.

The amendments to IFRS 3 Business Combinations update the references to the revised IFRS framework. In addition, they clarify that an acquirer shall apply the requirements of IAS 37 or IFRIC 21 instead of the framework when identifying obligations assumed that are within the scope of IAS 37 or IFRIC 21. At the same time, IFRS 3 is supplemented by an explicit prohibition on recognising acquired contingent assets. The amendments did not have any significant impact on the assets, financial, and earnings position of the Group.

The amendments to IAS 16 Property, Plant and Equipment clarify that proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management are recognised in profit or loss. In addition, sale proceeds and the corresponding costs for items produced that do not fall within the entity's ordinary business activity shall be shown separately and the line items in the income statement and other comprehensive income in which they were recognised shall be disclosed. The amendments did not have any significant impact on the assets, financial, and earnings position of the Group.

The amendments to IAS 37 Provisions, Contingent Liabilities and Contingent Assets determine which costs an entity should consider as the cost of fulfilling a contract when assessing whether a contract is onerous. The amendments did not have any significant impact on the assets, financial, and earnings position of the Group.

As part of the Annual Improvements to IFRS Standards 2018–2020 Cycle, the IASB made minor amendments to a total of three standards. The amendments did not have any significant impact on the assets, financial, and earnings position of the Group.

3.2 Published, but not yet applicable accounting standards

The IASB and IFRS IC have adopted additional standards and interpretations that may impact the assets, financial, and earnings position of the Heidelberg Materials Group, but whose application was not yet mandatory for the 2022 financial year.

Published, but not yet applicable accounting standards

Title	Date of initial application[1]	Endorsement by the EU Commission
IFRS 17 Insurance Contracts	1 January 2023	yes
Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2: Disclosure of Accounting policies	1 January 2023	yes
Amendments to IAS 8 Accounting policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates	1 January 2023	yes
Amendments to IAS 12 Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction	1 January 2023	yes
Amendments to IAS 1 Presentation of Financial Statements: Classification of Liabilities as Current or Non-current	1 January 2024	no
Amendments to IFRS 16 Leases: Lease Liability in a Sale and Leaseback	1 January 2024	no

1) Fiscal years beginning on or after that date.

Heidelberg Materials will not apply these standards and interpretations until the date when their application first becomes mandatory and after endorsement by the European Commission.

IFRS 17 Insurance Contracts contains principles for the recognition, measurement, presentation, and disclosure of insurance contracts and is applicable to all types of insurance contracts as well as to certain guarantees and financial instruments with discretionary participation features. With regard to the scope of application, a few exceptions apply. The application of IFRS 17 will not have a significant impact on the assets, financial, and earnings position of the Group.

The amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2: Disclosure of Accounting policies clarify that, in the future, only material rather than significant accounting policies should be disclosed in the Notes. Guidance and examples on the practical application of the concept of materiality to the disclosures on the accounting policies were also provided. The impact of these amendments on the disclosures of the accounting policies is currently being examined.

With the amendments to IAS 8 Accounting policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates, the concept of “accounting estimate” is defined and clarification is provided on how changes in accounting estimates differ from changes in accounting policies. The amendments will not have a significant impact on the assets, financial, and earnings position of the Group.

The amendments to IAS 12 Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction restrict the “initial recognition exception” and require companies to recognise deferred taxes for transactions from which both deductible and taxable temporary differences of the same amount arise on initial recognition. Deferred tax is recognised for all temporary differences, in particular in the case of leases (recognition of a right-of-use asset and a lease liability) and in the case of asset retirement obligations (capitalisation as part of the asset and recognition of a liability), which exist at the beginning of the earliest comparative period presented. The amendments are to be applied to transactions taking place at or after the beginning of the earliest comparative period presented. The cumulative effect of initial application is recognised in retained earnings as an adjustment to the opening balance. The amendments will not have any impact on the assets, financial, and earnings position of the Group, as the previous presentation in the balance sheet already comply with the new regulations.

The amendments to IAS 1 Presentation of Financial Statements: Classification of Liabilities as Current or Non-current contain selective adjustments to the criteria for the classification of liabilities as current or non-current. The initial application is not expected to have a significant impact on the assets, financial, and earnings position of the Group.

The amendments to IFRS 16 Leases: Lease Liability in a Sale and Leaseback explain how to account for the subsequent measurement of lease liabilities arising in the context of sale and leaseback transactions. Transactions in which some or all of the lease payments are variable and do not depend on an index or interest rate are affected. In the subsequent measurement of the lease liability, the seller/lessee is required to define “lease payments” and “modified lease payments” in such a way that no gain or loss is realised in relation to the retained right-of-use asset. The seller/lessee shall still recognise in the income statement any gain or loss relating to the partial or complete termination of a lease. The amendments do not prescribe a specific method of subsequent measurement. In addition, IFRS 16 has been updated to include one amended and one new illustrative example. The requirements are to be applied retrospectively to sale and leaseback transactions entered into after the date of initial application of IFRS 16, i.e. after 1 January 2019. The initial application is not expected to have a significant impact on the assets, financial, and earnings position of the Group.

3.3 Introduction of a global minimum tax

The OECD is currently working on the introduction of a global minimum tax (OECD – Pillar 2) as a means of ensuring fair tax competition between states and preventing tax avoidance. The aim is to ensure that the earnings of multinational enterprises with revenues above €750 million are subject to a minimum tax rate of 15%. As a potentially affected company, Heidelberg Materials is closely following the developments surrounding the introduction of the global minimum tax, analysing the current draft regulations in terms of their impact on the Group, and working on the necessary adjustments to the tax reporting processes. Due to the complexity of the regulations and the fact that they have not yet been finally transposed into local law, analysis of their impact is not yet complete. No estimate of the financial impact has therefore been made.

4 Estimation uncertainty and assumptions

The presentation of the assets, financial, and earnings position in the consolidated financial statements is dependent on estimates and assumptions made by the management, which affect the amounts and presentation of the assets and liabilities, expenses and income, and contingent liabilities accounted for in the period.

Effects of the Russia-Ukraine war as well as the price development for energy and raw materials and the sharp increase in inflation expectations were also taken into account. Furthermore, Heidelberg Materials is subject to climate-related risks. Climate risks include both transition risks and physical risks. As part of the structural transition to a low-carbon economy, Heidelberg Materials anticipates a rise in prices for the acquisition of emission allowances. These cost increases are taken into account in the operational plans. Physical climate risks are the direct consequences of extreme weather scenarios (e.g. floods and droughts), which may lead to a reduction in the useful lives of property, plant and equipment. The useful lives are reviewed regularly and, if necessary, adjusted to the changed conditions.

The actual values may differ from these estimates. The assumptions and estimates relate particularly to the necessity and calculation of impairments of goodwill and property, plant and equipment, the recognition and measurement of deferred tax assets, and the measurement of pension provisions and other provisions as well as the measurement of specific financial instruments (e.g. put options of non-controlling interests).

A cash flow-based method in accordance with IAS 36 (Impairment of Assets) is used to determine the recoverable amount of groups of cash-generating units as part of the impairment test for goodwill and property, plant and equipment. In particular, estimates are required in relation to future cash flows of the groups of cash-generating units as well as to the discount rates and growth rates used (discounted cash flow method). A change in the influencing factors may have a significant impact on the existence or amount of impairment losses. Explanations concerning the composition of the carrying amount of goodwill and the impairment test are provided in Note 9.1 Intangible assets. Explanations of impairments of property, plant and equipment are made in Note 9.2.

To assess the future probability that deferred tax assets can be utilised, various estimates must be adopted, for example operational plans and tax projections. If the actual results deviate from these estimates, this may impact the assets and earnings position. Further explanations on current and deferred taxes are provided in Note 7.10 Income taxes.

Owing to the international nature of its business activities, HeidelbergCement AG and its subsidiaries are subject to a large number of national tax laws and regulations. Changes in tax laws as well as the issuance of case law and the possible differing interpretation by local tax authorities due to the complexity of tax laws can have an influence on the amount of both current and deferred taxes. The potential uncertainties resulting from this are to be resolved by means of appropriate discretionary decisions. Recognition and measurement are based on the most probable realisation value of the uncertainty. Individual presentation or aggregation of several uncertainties depends on the individual case under consideration. Uncertainties in current taxes are taken into account with an appropriate estimate of potential tax payments. Uncertainties regarding the recoverability of deferred tax assets are countered by means of internal planning, also with regard to the future development of results of the Group company concerned. Ongoing monitoring of the aforementioned uncertainties is ensured by organisational measures.

The obligations arising from defined benefit plans are determined on the basis of actuarial methods, which are based on assumptions and estimates concerning the discount rate, pension increase rate, life expectancy, and other influencing factors. A change in the underlying parameters may lead to differences in the amounts recognised in the balance sheet. Further details are given on **page 182 f.** and in Note 9.12 Pension provisions.

Provisions for damages and environmental obligations are measured on the basis of an extrapolation of the claims and estimates of the development of costs. A change in the influencing parameters may have an impact on the income statement as well as the amounts recognised in the balance sheet. The recognition and measurement of the miscellaneous other provisions are based on estimates of the probabilities of future outflow of resources and on the basis of empirical values and the circumstances known at the reporting date. The actual outflow of resources may differ from the outflow of resources expected at the reporting date and may have an impact on the recognition and measurement. Further explanations on provisions can be found in Note 9.13 Other provisions.

The measurement of specific financial instruments such as put options of non-controlling interests, which are not traded on an active market, is based on best possible estimates using probability forecasts and recognised actuarial methods.

5 Changes in scope of consolidation

In addition to HeidelbergCement AG, the consolidated financial statements include 679 subsidiaries that have been fully consolidated, of which 19 are German and 660 are foreign companies. The changes in comparison with 31 December 2021 are shown in the following table.

Number of fully consolidated companies

	Germany	Abroad	Total
31 December 2021	**20**	**673**	**693**
First-time consolidations		5	5
Divestments	-3	-2	-5
Other changes	2	-16	-14
31 December 2022	**19**	**660**	**679**

A list of shareholdings of the Heidelberg Materials Group as at 31 December 2022 on the basis of the regulations of section 313(2) of the German Commercial Code (HGB) is provided on **page 249f.** It also contains an exhaustive list of all subsidiaries that make use of the exemption from disclosure obligations in accordance with sections 264(3) and 264b of the HGB.

5.1 Business combinations

Business combinations in the reporting year

On 7 February 2022, our subsidiary Hanson Quarry Products Europe Limited, United Kingdom, acquired 100% of the shares in Charterneed Limited, including the wholly owned subsidiaries A1 Services (Manchester) Limited and Green Earth Developments Limited, Manchester, United Kingdom. The companies are active in the removal of surface materials, urban recycling, and the processing of construction and utility arisings. The acquisition includes a 13-hectare site including a rail connected siding and track system, as well as licenses for waste transport and handling. The acquisition improves our strategic position for entry into the recycling market. The purchase price amounted to €21.5 million and was paid in cash. The purchase price allocation has been completed. The final goodwill of €4.8 million is not tax-deductible and represents synergy and growth potential.

On 4 April 2022, Heidelberg Materials acquired four ready-mixed concrete plants and a fleet of mixer trucks in the Atlanta metropolitan area from Meriwether Ready Mix, Inc., Griffin, USA, as part of an asset deal. The purchase price amounted to €13.3 million and was paid in cash. The purchase price allocation has been completed. The final goodwill of €1.0 million is tax-deductible and represents synergy and growth potential.

The following table shows the fair values of the assets and liabilities as at the acquisition date.

Fair values recognised as at the acquisition date (reporting year)

€m	United Kingdom	North America	**Total**
Intangible assets	3.7		3.7
Property, plant and equipment	14.3	12.4	26.8
Inventories	0.9	0.1	0.9
Trade receivables	2.6	0.7	3.3
Cash and cash equivalents	1.7		1.7
Other assets	0.2		0.2
Total assets	**23.5**	**13.2**	**36.7**
Deferred taxes	2.3		2.3
Provisions	0.2		0.2
Non-current liabilities	1.8		1.8
Current liabilities	2.6	0.9	3.5
Total liabilities	**6.9**	**0.9**	**7.8**
Net assets	**16.7**	**12.3**	**29.0**

The acquired property, plant and equipment relates to land and buildings (€12.9 million), plant and machinery (€11.7 million), and other operating equipment (€2.2 million).

As part of the business combinations, receivables with a fair value of €3.3 million were acquired. These are trade receivables. The gross value of the contractual receivables totals €3.4 million, of which €0.1 million is likely to be irrecoverable.

Since the acquisition took place, the companies have contributed €22.3 million to revenue and €1.1 million to the profit for the financial year. If the acquisitions had taken place on 1 January 2022, contributions to revenue and profit for the financial year would be €3.5 million and €1.5 million higher respectively. Transaction costs of €0.8 million arising in connection with the above-mentioned business combinations were recognised in the additional ordinary expenses.

Furthermore, Heidelberg Materials effected other business combinations during the reporting year that are of minor importance, both individually and collectively, for the presentation of the assets, financial, and earnings position of the Group.

Acquisition of joint ventures in the reporting year

To drive the digital transformation in the building materials industry, Heidelberg Materials acquired a 44.9% participation in Project Potter Parent, L.P., Cayman Islands, through its subsidiary HDigital GmbH, Heidelberg, on 29 April 2022. Project Potter Parent, L.P. indirectly holds all shares in Command Alkon, a globally active provider of comprehensive supply chain technology solutions for building materials. Partnering with Command Alkon means cloud-based solutions can be offered across the heavy building materials supply chain. The purchase price including transaction costs amounted to €325.8 million and was paid in cash. The carrying amount as at 31 December 2022 was €306.6 million and the result from equity accounted investments (REI) since the acquisition date was €–10.5 million.

In order to strengthen our market position in Ghana and significantly reduce CO_2 emissions in this region, Heidelberg Materials acquired 50% of the shares in CBI S.A., Buchs, Switzerland, ("CBI") on 6 May 2022. CBI controls the Ghanaian cement manufacturer CBI Ghana. The acquisition of the shares is also linked to an investment for the construction of the world's largest industrial-scale flash calciner to produce calcined clay cement with reduced clinker content. In addition, Heidelberg Materials will strengthen its presence in Ghana through CBI's cement grinding operations in Tema in the south of the country. The purchase price amounted to €32.5 million and was paid in cash.

Business combinations in the previous year

The wholly owned US subsidiaries Hanson Permanente Cement, Inc., Phoenix, and Kaiser Gypsum Company, Inc., Raleigh, filed a voluntary bankruptcy petition to a US bankruptcy court on 30 September 2016 in accordance with Chapter 11 of the US Bankruptcy Code. The objective was, among other things, to establish a trust to which all past and future asbestos personal injury claims would be channelled pursuant to section 524(g) of the US Bankruptcy Code. These companies were subject to insolvency proceedings as a result of the bankruptcy filing. The Heidelberg Materials Group therefore no longer had control pursuant to IFRS 10, and the companies were deconsolidated along with their subsidiaries – Hanson Micronesia Cement, Inc., Wilmington, Hanson Permanente Cement of Guam, Inc., Sacramento, Permanente Cement Company, Los Angeles, and Mediterranean Carriers, Inc., Panama City, ("Permanente Group") – on 30 September 2016. Following the successful establishment of the trust and completion of the insolvency proceedings, Heidelberg Materials regained control on 12 August 2021 and reconsolidated the Permanente Group.

Between the deconsolidation and reconsolidation, the participation in the Permanente Group was classified as a financial investment at fair value through other comprehensive income. At the time of the reconsolidation, the fair value amounted to €0.0 million. The Permanente Group owns real estate in Santa Clara County and operates two cement terminals on Guam and Saipan.

The reconsolidation resulted in the recoverability of deferred tax assets of €81.8 million, which were recognised accordingly. These deferred tax assets arise both from deductible temporary differences, which essentially result from recultivation provisions, and from unused losses carried forward. Therefore, the reconsolidation resulted in a gain of €20.8 million, which was shown in the additional ordinary income.

On 31 December 2021, Heidelberg Materials acquired 100% of the shares in Corliss Resources, LLC, Dover, USA, ("Corliss") including its 50% joint venture Sunset Quarry, LLC, Tacoma, USA. The takeover includes major aggregates operations and four ready-mixed concrete plants. The acquisition expands our market presence in the cement, aggregates, and ready-mixed concrete businesses in the USA's Pacific Northwest. The purchase price amounted to €134.1 million and was paid in cash. The purchase price allocation has been completed. This primarily resulted in an increase of €5.1 million in property, plant and equipment in comparison with 31 December 2021, which was offset by higher non-current liabilities of €2.3 million. The final goodwill of €79.5 million is tax-deductible and represents synergy and growth potential.

The following table shows the fair values of the assets and liabilities added or acquired as part of the above-mentioned transactions.

Fair values recognised as at the acquisition date (previous year)

€m	Permanente Group	Corliss	**Total**
Property, plant and equipment	220.4	86.7	307.2
Financial fixed assets		0.2	0.2
Deferred taxes	81.8		81.8
Inventories	0.0	2.5	2.5
Trade receivables	1.0	5.6	6.6
Cash and cash equivalents	3.9	3.8	7.7
Other assets	1.3	0.4	1.6
Total assets	**308.4**	**99.2**	**407.6**
Provisions	279.7	2.3	282.0
Non-current liabilities	6.8	24.0	30.9
Current liabilities	1.0	18.3	19.3
Total liabilities	**287.6**	**44.6**	**332.2**
Net assets	**20.8**	**54.6**	**75.4**

Furthermore, Heidelberg Materials effected other business combinations during the previous year that are of minor importance, both individually and collectively, for the presentation of the assets, financial, and earnings position of the Group.

Business combinations in the 2023 financial year
As part of the implementation of the circular economy strategy and in order to strengthen the Group's portfolio of recycled materials, Heidelberg Materials has announced the acquisition of the following recycling companies.

On 9 January 2023, our subsidiary Heidelberger Sand und Kies GmbH completed its acquisition of a 100% shareholding in RWG Holding GmbH and its subsidiaries. All conditions for the closing of the transaction have been fulfilled following the approval of the cartel authorities. RWG is an integrated provider in the field of demolition and building materials recycling in the Berlin metropolitan area with an annual revenue of around €50 million. The acquisition includes three modern recycling centres and a specialised demolition company. With this acquisition, Heidelberg Materials is strengthening its range of circular materials to meet the increasing demand for sustainable building materials. The initial accounting for the business combination was still incomplete when the consolidated financial statements were approved by the Managing Board. Assessments were not yet available for the preparation of the further information in accordance with paragraph B64 of IFRS 3.

On 12 December 2022, Heidelberg Materials announced the acquisition of the Mick George Group in the United Kingdom. Mick George is active in the recycling of construction and demolition waste in the east of the United Kingdom with an annual revenue of around £220 million and operates four recycling plants, eight waste handling stations, eleven mining sites for aggregates, and ten ready-mixed concrete plants. The transaction, which is still subject to the approval of the relevant competition authorities, is expected to close in the first half of 2023.

On 3 February 2023, Heidelberg Materials announced that its subsidiary Heidelberger Sand und Kies GmbH had entered into an agreement to acquire the Heilbronn-based SER Group, a leading integrated company in the demolition and building materials recycling businesses. With an annual revenue of around €50 million and three modern recycling locations, SER Group operates in the Heilbronn metropolitan area. The transaction is expected to close in the second quarter of 2023.

The provisional purchase prices for the transactions described above amount to approximately €350 million and are subject to the usual post-closing purchase price adjustments.

5.2 Divestments

Divestments in the reporting year
On 30 April 2021, Heidelberg Materials signed an agreement to sell its aggregates business and two ready-mixed concrete plants in Greece. In the future, Heidelberg Materials will focus on its core business in Greece and will continue cement production through its subsidiary Halyps Cement. The transaction was concluded on 3 January 2022. The sales price amounts to €34.6 million, of which a prepayment of €3.4 million was already received during the 2021 financial year.

The remaining amount was collected in the 2022 financial year. The divestment resulted in a gain of €18.7 million, which has been shown in the additional ordinary income.

On 2 August 2021, Heidelberg Materials signed an agreement to sell its aggregates and ready-mixed concrete business in the Spanish region of Catalonia. The sale was completed on 1 April 2022. The sales price amounted to €21.1 million and was paid in cash. The divestment resulted in a gain of €3.7 million, which has been shown in the result from current operations.

On 10 November 2021, Heidelberg Materials signed an agreement for the sale of its activities in southern Spain to Votorantim Cimentos. The sale comprises the integrated cement plant in Malaga as well as three aggregates and eleven ready-mixed concrete plants in Andalusia. The transaction was concluded on 1 November 2022. The sales price amounts to €93.3 million and was paid in cash. The divestment resulted in a gain of €24.1 million, which has been shown in the additional ordinary income.

The following table shows the assets and liabilities as at the date of divestiture.

Assets and liabilities as at the date of divestiture (reporting year)

€m	Greece	Spain	**Total**
Other intangible assets	0.2	0.1	0.3
Property, plant and equipment	14.5	78.2	92.7
Other non-current assets		0.8	0.8
Inventories	2.6	12.4	15.0
Cash and cash equivalents		1.1	1.1
Other assets		19.5	19.5
Total assets	**17.3**	**112.1**	**129.4**
Provisions	1.2	5.0	6.2
Non-current liabilities	0.2	4.3	4.5
Current liabilities		16.2	16.2
Total liabilities	**1.4**	**25.5**	**26.9**
Net assets	**15.9**	**86.6**	**102.5**

Incidental disposal costs of €1.1 million arose in connection with these divestments and were recognised in the additional ordinary expenses.

Furthermore, Heidelberg Materials effected other divestments in the reporting year that are of minor importance for the presentation of the assets, financial, and earnings position of the Group.

Divestments in the previous year

On 29 November 2020, Heidelberg Materials signed an agreement to sell the 51% participation in Hilal Cement Company KSCP and its subsidiaries Al Mahaliya Ready Mix Concrete W.L.L., Kuwait German Company for RMC W.L.L., and Gulf Ready Mix Concrete Company W.L.L., based in Safat, Kuwait (“Hilal Group”). The Hilal Group operates four ready-mixed concrete plants and two cement terminals on the local port site in Kuwait. The sale was completed on 24 January 2021. The sales price amounts to €8.2 million and was paid in cash. The divestment resulted in a gain of €0.9 million, which has been shown in the additional ordinary income.

On 29 April 2021, Heidelberg Materials sold 100% of the shares in Pioneer Concrete (Hong Kong) Limited, Kowloon, Hong Kong (“Pioneer Ltd”). The sales price amounts to €28.0 million and was paid in cash. The divestment resulted in a gain of €20.7 million, which has been shown in the additional ordinary income.

Heidelberg Materials signed an agreement on 23 May 2021 to sell its business activities in the West region of the USA to the US company Martin Marietta Materials, Inc. The sale was completed on 1 October 2021. The transaction includes the sale of Lehigh Hanson’s cement, aggregates, ready-mixed concrete, and asphalt business activities in the West region of the USA (California, Arizona, Oregon, and Nevada), with the exception of the Permanente cement plant and quarry (collectively, the “USA Region West”). The sale comprises two cement production plants with related distribution terminals, 17 active aggregates sites, and several downstream operations in the ready-mixed concrete and asphalt sectors. The sales price of US$2.3 billion was received in cash and is subject to the usual purchase price adjustments. The divestment resulted in a gain of €481.9 million, which has been shown in the additional ordinary income.

On 29 November 2021, as part of the portfolio optimisation and margin improvement programme in connection with the "Beyond 2020" strategy, Heidelberg Materials signed an agreement to dispose of its shares in Sierra Leone Cement Corp Ltd., Freetown, Sierra Leone, ("Leocem") to the Diamond Cement Group. Heidelberg Materials holds an indirect 50% share in the company and has full management responsibility. The sale includes a grinding plant with two cement mills. Located in Sierra Leone's capital, Freetown, the plant has an annual capacity of around 500,000 tonnes of cement. The sales price amounts to €10.4 million and was paid in cash. The sales price is subject to the usual purchase price adjustments. The divestment resulted in a gain of €0.1 million, which has been shown in the additional ordinary income.

The following table shows the assets and liabilities as at the date of divestiture.

Assets and liabilities as at the date of divestiture (previous year)

€m	Hilal Group	Pioneer Ltd	USA Region West	Leocem	**Total**
Goodwill		6.7	872.4	2.2	881.3
Other intangible assets	1.1		3.5		4.7
Property, plant and equipment	12.0	0.5	448.6	5.2	466.3
Other non-current assets	0.1		1.8		1.9
Inventories	3.0		94.6	8.9	106.5
Cash and cash equivalents	17.9	0.0	0.2	1.5	19.6
Other assets	10.3	0.0	5.6	4.7	20.5
Total assets	**44.5**	**7.2**	**1,426.7**	**22.5**	**1,500.9**
Provisions	2.7		19.1	0.2	21.9
Non-current liabilities	7.9		16.9		24.8
Current liabilities	17.5	0.0	17.2	3.5	38.2
Total liabilities	**28.1**	**0.0**	**53.2**	**3.6**	**84.9**
Net assets	**16.4**	**7.2**	**1,373.5**	**18.9**	**1,415.9**

Furthermore, Heidelberg Materials effected other divestments in the previous year that are of minor importance for the presentation of the assets, financial, and earnings position of the Group.

6 Notes to the segment reporting

Heidelberg Materials' segment reporting is based on the Group's internal division into geographical regions, corresponding to the management organisation. Heidelberg Materials is divided into six Group areas:

- Western and Southern Europe: Belgium, France, Germany, Italy, Netherlands, Spain, and the United Kingdom
- Northern and Eastern Europe-Central Asia: Denmark, Iceland, Norway, Sweden, and the Baltic States, as well as the cross-border Nordic Precast Group and Mibau Group, Bosnia-Herzegovina, Bulgaria, Croatia, Czechia, Georgia, Greece, Hungary, Kazakhstan, Poland, Romania, Russia, and Slovakia
- North America: Canada and USA
- Asia-Pacific: Australia, Bangladesh, Brunei, China, India, Indonesia, Malaysia, Singapore, and Thailand
- Africa-Eastern Mediterranean Basin: Benin, Burkina Faso, DR Congo, Egypt, the Gambia, Ghana, Israel, Liberia, Morocco, Mozambique, South Africa, Tanzania, Togo, and Turkey
- Group Services comprise the international trading activities

Heidelberg Materials evaluates the performance in the segments primarily on the basis of the result from current operations. As Group financing (including financing expenses and income) is managed centrally by the Group and income taxes are, in general, calculated across business lines, neither is allocated to segments. The IFRS used in these financial statements form the basis for the valuation principles of the segment reporting. The Inter-Group areas revenue represents the revenue between segments. In the reconciliation, intra-Group relationships between the segments are eliminated.

The revenue and non-current assets of the main countries are shown in the table below. Revenue is allocated to countries according to the supplying company's country of origin.

Information by country

	Revenue with external customers		Non-current assets[1]	
€m	2021	**2022**	2021	**2022**
USA	3,708	4,090	7,810	8,424
Germany	1,602	1,877	1,559	1,590
United Kingdom	1,498	1,814	1,221	1,175
Australia	1,244	1,403	2,006	1,982
France	1,313	1,349	1,120	1,149
Indonesia	857	1,022	1,016	1,001
Canada	852	990	582	569
Italy	656	838	566	492
Other countries	6,988	7,712	6,123	5,856
Total	**18,720**	**21,095**	**22,002**	**22,238**

1) Intangible assets and property, plant and equipment

7 Notes to the income statement

7.1 Revenue

The revenue shown in the consolidated income statement relates to revenue from contracts with customers in accordance with IFRS 15. In the following table, the revenue is broken down into two categories: type of products and services (business lines) and Group areas.

Revenue development by Group areas and business lines

	Cement		Aggregates		Ready-mixed concrete-asphalt		Service-other		Intra-Group eliminations		Total	
€m	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**
Western and Southern Europe	2,881	3,385	1,278	1,383	2,131	2,376	367	406	-1,100	-1,241	5,557	6,308
Northern and Eastern Europe-Central Asia	1,631	1,933	564	644	614	715	485	554	-211	-245	3,084	3,600
North America	1,828	1,974	1,718	1,987	1,231	1,161	279	331	-504	-545	4,551	4,907
Asia-Pacific	1,678	1,961	563	665	1,141	1,298	45	59	-302	-349	3,126	3,633
Africa-Eastern Mediterranean Basin	1,585	1,755	78	92	352	409	42	49	-147	-196	1,909	2,108
Group Services							1,421	1,783			1,421	1,783
Inter-Group area revenue within business lines	-27	-2	-38	-43			7	6			-58	-38
Total	**9,577**	**11,006**	**4,164**	**4,727**	**5,469**	**5,958**	**2,646**	**3,187**	**-2,265**	**-2,577**	**19,591**	**22,301**
Inter-Group area revenue between business lines									-871	-1,206	-871	-1,206
Total									**-3,136**	**-3,783**	**18,720**	**21,095**

7.2 Other operating income

Other operating income

€m	2021	2022
Gains from sale of fixed assets	113.5	131.0
Foreign exchange gains	28.7	118.5
Income from ancillary business	47.1	48.7
Rental income	35.7	35.2
Reversal of provisions	30.1	25.9
Other income	262.6	264.5
	517.7	**623.8**

The gains from sale of fixed assets include gains from the sale of quarries that were depleted and no longer in operational use to the amount of €41.5 million (previous year: 53.7). The foreign exchange gains concern trade receivables and payables. Foreign exchange gains from interest-bearing receivables and liabilities are shown in the financial result. The income from the reversal of provisions includes the reversal of provisions that cannot be assigned by cost type. The other income item includes proceeds of €15.2 million (previous year: 15.1) from the participation in energy efficiency projects, premium income of reinsurers of €23.0 million (previous year: 22.2), as well as numerous individual items.

Significant income that occurs in the course of ordinary business activities but is not reported in result from current operations is shown in the additional ordinary income and explained in Note 7.7.

7.3 Material costs

Material costs

€m	2021	2022
Raw materials	2,608.3	2,988.7
Supplies, repair materials, and packaging	1,204.9	1,405.2
Costs of energy	1,943.6	2,975.1
Goods purchased for resale	1,180.3	1,153.3
Miscellaneous	368.2	439.1
	7,305.4	**8,961.3**

State subsidies for electricity and gas of €44.5 million received in the financial year were offset against energy costs. Material costs amounted to 42.5% of revenue (previous year: 39.0%).

7.4 Personnel costs and employees

Personnel costs

€m	2021	2022
Wages, salaries, social security costs	2,908.8	3,011.1
Costs of retirement benefits	164.2	158.7
Other personnel costs	35.0	46.9
	3,108.0	**3,216.7**

Personnel costs equalled 15.2% of revenue (previous year: 16.6%). The development of expenses for retirement benefits is explained in Note 9.12 Pension provisions.

Annual average number of employees

Number based on full-time equivalents	2021	2022
Blue-collar employees	33,718	32,424
White-collar employees	18,875	18,972
Total	**52,593**	**51,396**
Apprentices	309	356
Total	**52,902**	**51,752**

Long-term bonus – capital market component

As a long-term variable remuneration element, the members of the Managing Board of HeidelbergCement AG and certain managers within the Heidelberg Materials Group receive a long-term bonus made up of a management component and a capital market component. The capital market component with a term of four years considers the external added value as measured by total shareholder return (TSR) – adjusted for the reinvested dividend payments and for changes in capital – compared with the relevant capital market indices, using performance share units (PSUs). The PSUs are virtual shares used for the calculation of the capital market component.

For the capital market component, the number of PSUs granted is determined in a first step: the number of PSUs is calculated from a set percentage of the fixed annual salary divided by the reference price of the HeidelbergCement share as at the time of issue. The reference price in each case is the average of the daily closing prices (trading days) of the HeidelbergCement share on the Frankfurt Stock Exchange Xetra trading system in the three months before the start or expiration of the performance period.

After expiry of the four-year performance period, the PSUs definitively earned are to be calculated in a second step according to the attainment of the target (0%–200%) and paid in cash at the reference price of the HeidelbergCement share valid at that time, adjusted for the reinvested dividend payments and for changes in capital.

The following table shows the key parameters of the plans.

Key parameters of the long-term bonus plans

	Plan 2019	Plan 2020	Plan 2021	Plan 2022
Date of issuance	1 January 2019	1 January 2020	1 January 2021	1 January 2022
Term	4 years	4 years	4 years	4 years
Reference price at issuance	€58.78	€65.84	€57.00	€62.56
Maximum payment amount per PSU	€146.95	€164.60	€142.50	€156.40

The reconciliation of the number of PSUs granted from 1 January 2019 to 31 December 2022 is shown in the following table.

Number of PSUs

	Plan 2019	Plan 2020	Plan 2021	Plan 2022
Granted as of 1 January 2019				
Additions	178,084			
Disposals	-8,426			
Granted as of 31 December 2019/as of 1 January 2020	169,658			
Additions		149,384		
Disposals	-3,319	-3,173		
Granted as of 31 December 2020/as of 1 January 2021	166,339	146,211		
Additions			185,400	
Disposals	-3,534	-4,014	-9,273	
Granted as of 31 December 2021/as of 1 January 2022	162,806	142,197	176,127	
Additions				158,790
Disposals	-9,423	-9,821	-11,879	-4,512
Granted as of 31 December 2022	**153,382**	**132,376**	**164,249**	**154,278**

In the reporting year, all of the 101,550 PSUs from the 2018 plan granted as at 31 December 2021 were exercised and either settled via cash payment or lapsed due to the departure of employees.

For accounting in accordance with IFRS 2 (Share-based Payment), the fair value of the PSUs is calculated using a recognised option price model. A large number of different development paths for the HeidelbergCement share – taking into account the effects of reinvested dividends – and the benchmark indices are simulated (Monte Carlo simulation). As at the reporting date, the benchmark index DAX 40 had 13,924 points (previous year: 15,885) and the benchmark index MSCI World Construction Materials 218.3 points (previous year: 277.5).

The fair value and additional measurement parameters are shown in the tables below.

Fair value

in €	Plan 2019	Plan 2020	Plan 2021	Plan 2022
Fair value as of 31 December 2019	21.13			
Fair value as of 31 December 2020	19.92	39.15		
Fair value as of 31 December 2021	0.04	2.00	13.86	
Fair value as of 31 December 2022		1.18	22.26	51.20

Measurement parameters

	31 Dec. 2019	31 Dec. 2020	31 Dec. 2021	31 Dec. 2022
	Plans 2017/18/19	Plans 2018/19/20 [2]	Plans 2019/20/21 [2]	Plans 2020/21/22 [2]
Expected dividend yield	6.0%	-0.8%	-0.7%	2.0%
Share price at 31 December	€64.96	€61.22	€59.52	€53.28
Volatility of HeidelbergCement share[1]	19%	32%	32%	25%
Volatility of MSCI World Construction Materials Index[1]	13%	25%	26%	19%
Volatility of DAX 40 Index[1]	13%	22%	22%	16%
Correlation HeidelbergCement share/ MSCI World Construction Materials Index[1]	87%	67%	92%	87%
Correlation HeidelbergCement share / DAX 40 Index[1]	69%	51%	89%	79%
Correlation DAX 40 Index/ MSCI World Construction Materials Index[1]	90%	92%	97%	94%

1) Average over the last two years
2) The plans expiring in the financial year were revalued each on the base of the current value (31 Dec. 2020: Plan 2017/31 Dec. 2021: Plan 2018/31 Dec. 2022: Plan 2019).

The total expenditure on the capital market component of the long-term bonus plan amounted to €3.4 million (previous year: –2.7). As at the reporting date, the provisions for the capital market component totalled €4.1 million (previous year: 0.7). The capital market component of the long-term bonus plan 2019–2021/22 is paid after the Annual General Meeting 2023. The same applies to the additional current long-term bonus plans, i.e. payment takes place in the year following the four-year performance period.

7.5 Other operating expenses

Other operating expenses

€m	2021	2022
Freight	2,032.8	2,328.4
Expenses for third party repairs and services	1,927.6	2,277.1
Selling and administrative expenses	1,117.3	1,274.6
Other taxes	126.6	152.9
Lease expenses	113.9	131.1
Foreign exchange losses	32.6	125.1
Impairment losses on operating receivables and contract assets	2.2	26.8
Losses from derecognition of operating receivables	4.2	1.8
Other expenses	35.3	41.7
	5,392.5	**6,359.6**

The lease expenses include expenses for short-term leases of €125.0 million (previous year: 106.8) and expenses for leases of low-value assets of €6.2 million (previous year: 7.1). The expenses for variable lease payments not included in the measurement of lease liabilities amounted to €104.3 million (previous year: 88.9) and were incurred primarily in connection with freight and third-party services. The foreign exchange losses concern trade receivables and payables. Foreign exchange losses from interest-bearing receivables and liabilities are shown in the financial result. Other expenses include expenses from the transfer of receivables outstanding as at the reporting date amounting to €8.4 million (previous year: 6.3).

Significant expenses that occur in the course of ordinary business activities but are not reported in result from current operations are shown in the additional ordinary expenses and explained in Note 7.7.

7.6 Result from equity accounted investments (REI)

The result from equity accounted investments (REI) is made up of the results from joint ventures and associates engaged in the Group's core activities. Results from associates that are not engaged in the Group's core activities are reported in the result from other participations.

Result from joint ventures
With its joint venture partners, Heidelberg Materials operates numerous joint ventures worldwide. Cement Australia makes an important contribution to the result from current operations of the Heidelberg Materials Group.

The joint venture Cement Australia comprises Cement Australia Holdings Pty Ltd, Cement Australia Pty Limited, and Cement Australia Partnership, all based in Darra, Australia. Cement Australia is a joint venture between Heidelberg Materials and Holcim. Each partner holds 50% of the capital shares in the companies. Cement Australia is the largest Australian cement manufacturer and operates two cement plants and two grinding plants in eastern and southeastern Australia as well as in Tasmania. Heidelberg Materials procures its entire Australian cement requirement from Cement Australia.

The following table shows the statement of comprehensive income (100% values).

Statement of comprehensive income Cement Australia

€m	2021	2022
Revenue	731.5	830.2
Depreciation and amortisation	-41.6	-43.3
Result from current operations	**185.8**	**161.6**
Additional ordinary result	-0.0	
Earnings before interest and taxes (EBIT)	**185.7**	**161.6**
Interest expenses	-11.4	-15.7
Other financial income and expenses	-1.2	-1.1
Profit before tax	**173.1**	**144.8**
Income taxes	-8.3	7.6
Profit for the financial year	**164.8**	**152.4**
Other comprehensive income	1.0	-3.7
Total comprehensive income	**165.8**	**148.7**

The assets and liabilities (100% values), the reconciliation to the total carrying amount of the interest, and the dividend received are shown in the following table.

Additional financial information Cement Australia

€m	2021	2022
Intangible assets	22.4	21.6
Property, plant and equipment	478.6	487.1
Financial fixed assets	38.0	37.1
Other non-current assets	2.1	1.9
Total non-current assets	**541.1**	**547.7**
Cash and cash equivalents	17.2	4.4
Other current assets	140.7	166.8
Total current assets	**157.9**	**171.2**
Total assets	**699.0**	**718.9**
Non-current financial liabilities	249.2	338.2
Non-current provisions	7.2	6.5
Other non-current liabilities	14.3	7.2
Total non-current liabilities	**270.7**	**351.9**
Current financial liabilities	96.5	36.8
Current provisions	10.8	9.3
Trade payables	105.8	108.8
Other current liabilities	65.3	70.5
Total current liabilities	**278.4**	**225.4**
Total liabilities	**549.1**	**577.3**
Net assets	**149.9**	**141.6**
Group share in %	50.0	50.0
Group share of net assets	74.9	70.8
Goodwill	350.7	349.1
Total carrying amount of the interest	**425.6**	**419.9**
Dividends received	90.1	80.8

Heidelberg Materials also holds investments in individually immaterial joint ventures. These now include the joint venture Texas Lehigh Cement Company LP, based in Austin, USA, which was still classified as a material joint venture in the previous year. The summarised financial information for these companies is shown in the following table (Heidelberg Materials shareholding). The previous year's values have been adjusted accordingly.

Summarised financial information for immaterial joint ventures

€m	2021	2022
Investments in immaterial joint ventures	**855.5**	**1,323.3**
Result from immaterial joint ventures	199.7	133.5
Other comprehensive income	16.7	20.7
Total comprehensive income	**216.4**	**154.2**
Unrecognised share of losses of the period	-1.5	-2.8
Unrecognised share of losses cumulated	-2.6	-5.5

In view of the economic situation and the highly inflationary environment in Turkey, Heidelberg Materials conducted an impairment review for the joint venture Akçansa Çimento Sanayi ve Ticaret A.S. This resulted in impairments of €25.9 million due to the retrospective adjustment of the company's equity in connection with the initial application of IAS 29 (Financial Reporting in Hyperinflationary Economies) and the increased cost of capital. The carrying amount of €195.9 million was impaired to a value in use of €170.0 million. A cost of capital of 38.5% was used. The impairment loss is shown in the additional ordinary expenses. In the reporting year, the result from equity accounted investments (REI) amounted to €24.7 million.

Result from associates

The following table shows the summarised financial information concerning the associates.

Summarised financial information for associates

€m	2021	2022
Investments in associates	**583.5**	**688.3**
Result from associates – reported in result from equity accounted investments (REI)	74.0	52.1
Result from associates – reported in result from other participations		11.1
Other comprehensive income	6.1	-11.1
Total comprehensive income	**80.1**	**52.1**
Unrecognised share of losses of the period	-5.5	-1.3
Unrecognised share of losses cumulated	-7.4	-7.5

7.7 Additional ordinary result

The additional ordinary result includes income and expenses that, although occurring in the course of ordinary business activities, are not reported in result from current operations.

Additional ordinary result

€m	2021	2022
Additional ordinary income		
Gains from the disposal of subsidiaries and other business units	512.1	43.2
Gains from the disposal of other non-current assets	40.2	0.0
Reversal of impairment losses	201.3	56.3
Other additional income	21.6	25.4
	775.1	**124.9**
Additional ordinary expenses		
Losses from the disposal of subsidiaries and other business units	-9.2	-13.9
Impairment of other intangible assets and property, plant and equipment	-73.1	-196.3
Restructuring expenses	-30.3	-26.5
Other additional expenses	-181.4	-81.5
	-294.0	**-318.1**
	481.1	**-193.2**

Additional ordinary income

In 2022, the gains from the disposal of subsidiaries and other business units were essentially attributable to the sale of the business activities in southern Spain in the amount of €24.1 million and from the sale of the business activities in Greece in the amount of €18.7 million. In the previous year, the item included, in particular, gains from the sale of the business activities in the USA Region West in the amount of €481.9 million and from the disposal of Pioneer Concrete (Hong Kong) Ltd. in the amount of €20.7 million. The reversal of impairment losses is explained in Note 9.2. Other additional income mainly includes income from the reversal of provisions in connection with divested business activities. In the 2021 financial year, income from the reconsolidation of the Permanente Group amounting to €20.8 million was recognised in this item.

Additional ordinary expenses

The losses from the disposal of subsidiaries and other business units in the 2022 financial year are essentially attributable to currency-related losses in connection with the liquidation of a subsidiary. In the previous year, this item included losses from the liquidation of several participations.

An explanation of the impairment of other intangible assets and property, plant and equipment is given in Note 9.2.

The restructuring expenses in the 2022 financial year mainly included personnel costs and were primarily incurred in the Group areas of Western and Southern Europe with €23.1 million, Asia-Pacific with €2.5 million, and Africa-Eastern Mediterranean Basin with €1.7 million. In the previous year, the restructuring expenses related to the Group areas of Western and Southern Europe with €15.9 million, Africa-Eastern Mediterranean Basin with €8.5 million, Group functions with €3.7 million, and Asia-Pacific with €2.0 million.

Other additional expenses include expenses of €36.7 million connected with the closure of locations, expenses resulting from the impairment of a joint venture in the amount of €25.9 million, additions to provisions amounting to €7.8 million for litigation and other risks, incidental disposal costs of €5.6 million in connection with the disposal of subsidiaries, transaction costs of €3.4 million in connection with business combinations, and other expenses not reported in results from current operations. In the previous year, this item included expenses of €66.1 million connected with the closure of locations, additions to provisions amounting to €57.9 million for litigation and other risks, incidental disposal costs of €49.9 million in connection with the disposal of subsidiaries, transaction costs of €7.1 million in connection with business combinations, and other expenses not reported in results from current operations.

7.8 Interest expenses

In the 2022 financial year, the interest expenses for lease liabilities amounted to €32.2 million (previous year: 32.3).

7.9 Other financial result

Other financial result

€m	2021	2022
Interest balance from defined benefit pension plans	-8.4	0.0
Interest effect from the valuation of other provisions	5.7	111.8
Valuation result of derivative financial instruments	-8.2	49.9
Impairment losses on interest-bearing receivables	-7.4	4.0
Miscellaneous other financial result	-29.9	-25.4
	-48.3	**140.3**

Interest effects from the valuation of other provisions are explained in Note 9.13. The valuation result of derivative financial instruments essentially stems from the interest component of the foreign currency derivatives. The miscellaneous other financial result includes expenses from the continuing involvement to the amount of €19.7 million (previous year: 6.6).

7.10 Income taxes

Income tax expense

€m	2021	2022
Current taxes		
Current taxes current year	-663.4	-447.9
Current taxes previous years	28.9	14.0
	-634.4	**-433.8**
Deferred taxes		
Deferred taxes resulting from the recognition and reversal of temporary differences	-68.6	-74.2
Deferred taxes resulting from carryforwards of unused tax losses and interest, tax credits	-202.9	24.1
Deferred taxes resulting from changes in tax rate	-40.8	-1.1
	-312.2	**-51.2**
Income taxes from continuing operations	**-946.7**	**-485.0**

Adjusted for tax income for previous years, which amounted to €14.0 million (previous year: 28.9), the current tax expense decreased by €215.5 million. This decrease is mainly attributable to the sale of business activities in the USA Region West, which in the previous year led to a current tax expense of €259.2 million. The deferred tax expense includes expenses of €74.2 million (previous year: 68.6) due to the recognition and reversal of temporary differences. Deferred tax assets created in previous years for carryforwards of unused tax losses and interest as well as tax credits were offset and reduced by €9.6 million (previous year: 45.0) during the reporting year. The reduction in the current and deferred tax expense for carryforwards of unused tax losses and interest not recognised in previous years as well as tax credits amounted to €90.7 million (previous year: 61.1) in the financial year. In the reporting year, deferred tax assets of €7.2 million (previous year: 11.4) not covered by deferred tax liabilities were recognised from companies that had made a loss in the current or previous period. This mainly concerns companies in Spain and Indonesia and corresponds to the assessment of recoverability based on positive business development and corporate planning.

Carryforwards of unused tax losses as well as tax credits for which no deferred tax assets are recognised amount to €2,745.9 million (previous year: 2,646.3). They have essentially vested both in Germany and abroad. However, they are not determined separately in all countries by official notice and are therefore partly subject to review by the financial authorities prior to utilisation. In addition, no deferred tax assets were recognised for carryforwards of interest amounting to €374.3 million (previous year: 508.8) and deductible temporary differences of €88.0 million (previous year: 109.6). Overall, unrecognised deferred tax assets amounted to €771.8 million (previous year: 813.6) in the reporting year.

In the financial year, €5.4 million (previous year: 86.2) in deferred taxes was recognised directly in equity. These amounts result primarily from the measurement of pension provisions in accordance with IAS 19. In addition, €26.9 million (previous year: 2.6) of current taxes, in connection with the measurement of financial instruments according to IFRS 9, was recognised directly in equity. Changes to the scope of consolidation led to a net increase in deferred tax liabilities of €3.1 million (previous year: increase in deferred tax assets of 82.5), recognised directly in equity. The change in comparison with the previous year is largely due to the reconsolidation of the Permanente Group in 2021.

As laid down in IAS 12, deferred taxes must be recognised on the difference between the share of equity of a subsidiary captured in the consolidated balance sheet and the carrying amount for this subsidiary in the parent company's tax accounts, if realisation is expected (outside basis differences). On the basis of the regulations for the application of IAS 12.39, deferred taxes of €43.1 million (previous year: 52.1) were recognised on planned future dividends. No deferred tax liabilities were recognised for additional temporary taxable outside basis differences from subsidiaries, associates, and other participations of HeidelbergCement AG amounting to €119.0 million (previous year: 91.9), as no reversal is likely within the foreseeable future. In accordance with the regulations of IAS 12.87, the amount of unrecognised deferred tax liabilities was not computed.

To measure deferred taxes, a combined income tax rate of 29.7% is applied for the domestic companies. This consists of the statutory corporation tax rate of 15.0% plus the solidarity surcharge of 5.5% levied on the corporation tax to be paid, as well as an average trade tax burden of 13.9%. For 2021, the combined income tax rate was also 29.7%. The calculation of the expected income tax expense at the domestic tax rate is carried out using the same combined income tax rate that is used in the calculation of deferred taxes for domestic companies.

The profit before tax of the Group companies based abroad is taxed at the applicable rate in the respective country of residence. The local income tax rates in the individual countries vary, thus resulting in corresponding tax rate differentials. These are shown in the line “Effect of different tax rates in countries in which the Group operates”.

A weighted average tax rate is established by taking the tax rate differentials of foreign Group companies into account. The reduction in this rate in comparison with the earlier period is due to the change in the relative weighting of the companies’ results.

Tax reconciliation

€m	2021	**2022**
Profit before tax from continuing operations	**2,893.9**	**2,217.1**
Expected tax expense at national tax rate of 29.7% (2021: 29.7%)	-859.5	-658.6
Effect of different tax rates in countries in which the Group operates	179.7	148.6
Expected tax expense at weighted average tax rate of 23.0% (2021: 23.5%)	**-679.8**	**-510.0**
Tax-free earnings (+) and non-deductible expenses (-)	-235.2	-41.7
Effects from carryforward of unused tax losses and interest, tax credits	16.1	81.1
Not recognised deferred tax assets	-25.4	-11.1
Tax increase (-), reduction (+) for prior years	34.3	13.5
Changes in tax rate	-40.8	-1.1
Others	-15.9	-15.7
Income taxes	**-946.7**	**-485.0**
Effective tax rate	**32.7%**	**21.9%**

Deferred taxes

€m	2021	**2022**
Deferred tax assets		
Fixed assets	50.0	52.4
Other assets	89.7	90.9
Provisions and liabilities	737.4	692.9
Carryforward of unused tax losses and interest, tax credits	242.9	267.1
Gross amount	1,119.9	1,103.1
Netting	-857.1	-834.9
	262.9	**268.2**
Deferred tax liabilities		
Fixed assets	1,288.7	1,386.0
Other assets	71.5	76.5
Provisions and liabilities	329.0	258.6
Gross amount	1,689.1	1,721.2
Netting	-857.1	-834.9
	832.1	**886.3**

7.11 Discontinued operations and disposal groups

Discontinued operations

The following table shows the composition of the result.

Net loss from discontinued operations

€m	2021	2022
Income		1.4
Expenses	-60.8	-13.4
Result before tax	**-60.8**	**-12.0**
Attributable income taxes	15.3	2.9
Result after tax	**-45.5**	**-9.1**

The result includes income and expenses incurred in connection with discontinued operations of the Hanson Group in previous years and that result from provisions for damages and environmental obligations. Further details on the obligations are provided in Note 9.13 Other provisions.

Disposal groups

As part of the portfolio optimisation and margin improvement programme in connection with the “Beyond 2020” strategy, Heidelberg Materials signed an agreement on 30 September 2021 to sell its aggregates and ready-mixed concrete business in the Madrid region. The transaction is subject to a number of conditions precedent before the final closing. Final closing is expected to take place in the second half of 2023.

The disposal groups also include non-current assets of the Western and Southern Europe Group area whose sale within the next 12 months is regarded as highly probable. These assets are measured at their fair value less costs to sell.

In the previous year, the disposal groups included assets and liabilities of planned divestments in Greece and Spain. Further explanations are given in Note 5.2.

The following overview shows the main groups of assets and liabilities of the disposal groups.

Assets and liabilities classified as held for sale

€m	2021	2022
Intangible assets	0.2	
Property, plant and equipment	103.1	48.7
Other non-current assets	0.8	
Inventories	12.0	0.9
Cash and cash equivalents	0.0	
Other current assets	9.3	
Assets classified as held for sale	**125.4**	**49.6**
Pension provisions	0.3	
Other non-current provisions	5.7	
Non-current liabilities	6.5	0.3
Current provisions	0.2	
Current liabilities	12.2	
Liabilities classified as held for sale	**24.9**	**0.3**
Net assets	**100.5**	**49.3**

7.12 Earnings per share

Earnings per share

€m	2021	2022
Profit for the financial year	1,901.7	1,723.0
Thereof attributable to non-controlling interests	142.8	126.4
Thereof attributable to HeidelbergCement AG shareholders	1,759.0	1,596.6
Number of shares in '000s (weighted average)	197,308	189,028
Earnings per share in €	**8.91**	**8.45**
Net income from continuing operations – attributable to HeidelbergCement AG shareholders	1,804.5	1,605.7
Earnings per share in € – continuing operations	9.15	8.49
Net loss from discontinued operations – attributable to HeidelbergCement AG shareholders	-45.5	-9.1
Loss per share in € – discontinued operations	-0.23	-0.05

8 Notes to the statement of cash flows

The consolidated statement of cash flows shows how the Group's cash and cash equivalents changed through inflows and outflows during the reporting year. In accordance with IAS 7 (Statement of Cash Flows), a distinction is made between cash flows from operating, investing, and financing activities. The changes in the relevant balance sheet items cannot be directly derived from the consolidated balance sheet, as they are adjusted for non-cash transactions, such as effects arising from currency translation and changes to the scope of consolidation.

The cash flow is calculated as net income from continuing operations adjusted for income taxes, net interest, depreciation, amortisation, impairment, and other eliminations. Cash flows from dividends received from non-consolidated companies, from interest received and paid, and from income taxes paid are also recognised. Changes in working capital and utilisation of provisions are taken into account when determining the cash flow from operating activities.

Cash flows from the acquisition or sale of intangible assets as well as property, plant and equipment and financial fixed assets are recognised in the cash flow from investing activities. If these relate to the acquisition or disposal of subsidiaries or other business units (gain or loss of control), the effects on the statement of cash flows are shown in separate items.

The cash flow from financing activities mainly results from changes in capital and dividend payments as well as proceeds from and repayments of bonds and loans and repayments of lease liabilities. In addition, cash flows from changes in ownership interests in subsidiaries that do not result in a loss of control are classified as financing activities.

The cash flows from foreign Group companies shown in the statement are generally translated into euro using the average annual exchange rates. In contrast, cash and cash equivalents are translated using the exchange rate at year end, as in the consolidated balance sheet. The effects of exchange rate changes on cash and cash equivalents are shown separately.

The significant individual items in the statement of cash flows are explained below.

8.1 Dividends received

Of the cash inflow from dividends received, €177.8 million (previous year: 271.0) relates to joint ventures, €30.0 million (previous year: 29.0) to associates, and €1.5 million (previous year: 1.8) to other participations.

8.2 Interest received

The cash inflow from interest received increased, primarily as a result of the rise in payments received from interest rate and cross-currency interest rate swaps.

8.3 Other eliminations

The other eliminations include non-cash expenses and income, such as results from equity accounted investments (REI) (before impairment or reversal of impairments), additions to and reversal of provisions, and impairment and reversal of impairments of working capital. Furthermore, the results from divestments are adjusted because the total amount earned from divestments is shown in the cash flow from investing activities. The following table shows the composition of the other eliminations:

Other eliminations

€m	2021	2022
Result from equity accounted investments	-355.7	-271.7
Addition/reversal of pension provisions	50.1	46.4
Addition/reversal of other provisions	231.5	-7.5
Impairment/reversal of impairments of working capital	86.5	76.2
Result from divestments	-631.5	-115.8
Other non-cash expenses and income	11.8	104.4
	-607.4	**-168.0**

8.4 Changes in operating assets/liabilities

Operating assets consist of inventories, trade receivables, and other assets used in operating activities. Operating liabilities include trade payables and other liabilities from operating activities.

8.5 Investments (cash outflow)

The payments for investments differ from additions in the fixed asset movement schedule, which shows, for instance, non-cash transactions as additions, such as additions in connection with leasing transactions.

Of the total cash-relevant investments of €1,810.9 million (previous year: 1,599.3), €1,288.7 million (previous year: 1,083.5) related to investments to maintain and optimise capacity and €522.2 million (previous year: 515.8) to capacity expansions.

Investments in intangible assets and property, plant and equipment less subsidies received amounted to €1,259.6 million (previous year: 1,419.5) and concerned maintenance, optimisation, and environmental protection measures at our production sites, as well as expansion projects in growth markets.

Payments for the acquisition of subsidiaries and other business units amounted to €63.5 million (previous year: 144.8); this figure was primarily attributable to business combinations in the United Kingdom and North America. In the previous year, the payments resulted mainly from the acquisition of Corliss Resources, LLC in North America. Further details of the acquisitions are provided in Note 5.1.

Investments in financial assets, associates, and joint ventures amounted to €487.8 million (previous year: 35.0) and relate to the acquisition of 44.9% of the shares in Command Alkon for €325.8 million, the indirect acquisition of 50% of the shares in CBI Ghana for €32.5 million, and the acquisition and granting of loans totalling €94.8 million.

8.6 Divestments (cash inflow)

The cash inflow from the disposal of subsidiaries and other business units amounted to €144.8 million (previous year: 2,004.9) and primarily relates to the sale of the business activities in southern Spain as well as the sale of the aggregates business and two ready-mixed concrete plants in Greece. Proceeds in the previous year mainly related to the sale of the business activities in the USA Region West and our subsidiaries in Hong Kong, Kuwait, and Sierra Leone. Detailed explanations on the divestments are provided in Note 5.2.

Proceeds from the disposal of intangible assets and property, plant and equipment amounted to €144.9 million in the financial year (previous year: 184.1). The disposal of financial assets, associates, and joint ventures as well as the repayment of loans resulted in payments received of €39.0 million (previous year: 30.1).

8.7 Acquisition of treasury shares

The second tranche of the share buyback programme was completed in the financial year, with the acquisition of 6,906,281 shares for a total of €350.0 million (including incidental acquisition costs). In the previous year, 5,324,577 shares were acquired for a total of €349.8 million under the first tranche.

8.8 Decrease/increase in ownership interests in subsidiaries

This item shows cash flows from the decrease or increase in ownership interests in subsidiaries that do not lead to a loss of control. The payments made to increase ownership interests in subsidiaries totalled €78.4 million (previous year: 102.5) in the financial year, of which €77.2 million (previous year: 97.9) was connected with the 1.8% (previous year: 1.9%) increase in our share in PT Indocement Tunggal Prakarsa Tbk., Indonesia, through the acquisition of treasury shares.

8.9 Repayment of bonds, loans, and lease liabilities

This item includes the scheduled repayments of financial liabilities. In 2022, the debt certificate of €360.5 million and a bond with a nominal volume of €750.0 million were repaid. In addition, lease liabilities of €236.7 million (previous year: 252.7) were repaid. In the previous year, this item included the repayment of two bonds totalling €1,500.0 million.

8.10 Changes in short-term financial liabilities

This line shows the balance of proceeds from and payments for items with a high turnover rate, large amounts, and short terms from financing activities.

8.11 Changes in liabilities arising from financing activities

The following table shows the changes in liabilities arising from financing activities, broken down into cash-relevant and non-cash changes.

Changes in liabilities arising from financing activities

€m	Bonds payable	Bank loans	Miscellaneous other financial liabilities	Lease liabilities	Non-controlling interests with put options	Derivative financial instruments (net position)	**Total**
1 January 2022	**6,169.9**	**736.4**	**91.2**	**1,059.1**	**79.9**	**-27.1**	**8,109.4**
Cash flow from financing activities	-750.0	-406.0	-9.1	-236.7		-82.1	-1,483.9
Change in consolidation scope			6.4	4.7			11.1
Currency translation		-8.0	-1.9	-8.6			-18.4
Changes in fair value						146.3	146.3
Other changes	-98.0	-1.2	5.3	232.6	7.5		146.2
31 December 2022	**5,321.9**	**321.2**	**92.0**	**1,051.1**	**87.3**	**37.0**	**6,910.7**
1 January 2021	**7,708.5**	**842.1**	**92.5**	**1,124.7**	**76.1**	**-44.6**	**9,799.4**
Cash flow from financing activities	-1,500.0	-113.3	-17.1	-252.7		111.0	-1,772.1
Change in consolidation scope		0.1	9.9	29.2			39.2
Currency translation		7.0	2.5	36.4			45.9
Changes in fair value						-93.5	-93.5
Other changes	-38.6	0.5	3.5	121.5	3.7		90.6
31 December 2021	**6,169.9**	**736.4**	**91.2**	**1,059.1**	**79.9**	**-27.1**	**8,109.4**

The cash-relevant change in liabilities arising from financing activities includes cash flows resulting from the proceeds from and repayments of loans, bonds, and short-term financial liabilities and repayments of lease liabilities, as well as cash flows from rolling currency derivatives, insofar as they serve to hedge financial liabilities.

The net position of the derivative financial instruments includes currency derivatives with both positive and negative fair values. This results in a negative net carrying amount of €37.0 million (previous year: positive carrying amount of €27.1 million) as at 31 December 2022. The total change in interest liabilities is shown in other changes, as interest-related payment flows in the statement of cash flows are allocated to cash flow from operating activities.

8.12 Cash and cash equivalents

Cash and cash equivalents with a remaining term of up to three months are included. The cash equivalents in this item are short-term, highly liquid financial investments that are readily convertible to a known amount of cash and subject to only insignificant changes in value. Of this item, €54.8 million (previous year: 16.6) is not available for use by Heidelberg Materials. This includes €21.1 million in short-term cash deposits at banks that were placed as security for various business transactions, for example outstanding recultivation payments and guarantees provided. The figure also takes into account bank balances of €33.7 million that cannot be freely transferred within the Group because of foreign exchange restrictions.

9 Notes to the balance sheet

9.1 Intangible assets

Intangible assets (31 December 2022)

€m	Goodwill	Other intangible assets	**Total**
Cost			
1 January 2022	12,326.7	616.3	12,943.0
Currency translation	96.3	1.3	97.7
Business combinations	20.6	3.9	24.5
Divestments	-1.5	-0.2	-1.7
Additions		35.1	35.1
Disposals		-16.5	-16.5
Reclassifications		9.0	9.0
Reclassifications to current assets		-0.1	-0.1
31 December 2022	12,442.1	648.8	13,090.9
Amortisation			
1 January 2022	4,162.0	409.5	4,571.5
Currency translation	-88.0	1.1	-86.9
Divestments	-0.0	-0.2	-0.2
Additions		40.2	40.2
Impairment		3.5	3.5
Reversal of impairment		-0.2	-0.2
Disposals		-16.4	-16.4
Reclassifications		2.0	2.0
31 December 2022	4,074.0	439.5	4,513.5
Carrying amount at 31 December 2022	**8,368.1**	**209.3**	**8,577.4**

Intangible assets (31 December 2021)

€m	Goodwill	Other intangible assets	**Total**
Cost			
1 January 2021	12,607.2	810.5	13,417.7
Currency translation	519.8	15.9	535.6
Business combinations	85.4		85.4
Divestments	-10.2	-0.1	-10.3
Additions		27.2	27.2
Disposals		-22.5	-22.5
Reclassifications		-198.0	-198.0
Reclassifications to current assets	-875.5	-16.8	-892.2
31 December 2021	12,326.7	616.3	12,943.0
Amortisation			
1 January 2021	4,018.4	449.3	4,467.8
Currency translation	148.4	9.2	157.6
Divestments	-1.2	-0.1	-1.3
Additions		45.1	45.1
Impairment		0.1	0.1
Disposals		-18.3	-18.3
Reclassifications		-62.8	-62.8
Reclassifications to current assets	-3.6	-13.1	-16.7
31 December 2021	4,162.0	409.5	4,571.5
Carrying amount at 31 December 2021	**8,164.7**	**206.9**	**8,371.6**

Goodwill
An impairment test on goodwill in accordance with IAS 36 (Impairment of Assets) is generally performed annually within the Heidelberg Materials Group, in the fourth quarter once the operational three-year plan has been prepared or if there are indications for impairment.

In this impairment test, the carrying amount of a group of cash-generating units (CGUs) to which goodwill is allocated is compared with the recoverable amount of this group of CGUs.

Cash flow estimates extend over a five-year planning period, after which a terminal value is applied. A three-year detailed bottom-up operational plan approved by the Managing Board and Supervisory Board forms the basis for these estimates. This is generally complemented by a top-down plan for an additional two years, which incorporates medium-term expectations of the management based on estimates of market volume, market shares, as well as cost and price development. As a general rule, the top-down plan is derived by applying growth rates to the detailed three-year operational plan. A detailed plan is created for all CGUs operating in unstable markets. This applies especially to those markets in which demand for building materials and building products, as well as the price level, have decreased substantially due to economic uncertainties. It is generally assumed that demand and prices in these markets will recover.

The sales volumes derived from the demand are generally based on the assumption of constant market shares. The underlying development of the price level varies by CGU.

Variable costs are assumed to evolve in line with the projected development of sales volumes and prices. As a rule, it is expected that the contribution margin as a percentage of revenue will increase slightly. With increasing sales volumes, this leads to a significant improvement in the operating margin in some cases. In view of the high volatility in the energy markets, we expect rising energy costs in the year ahead, particularly in Europe, which will ease again over the course of the planning horizon.

Furthermore, it was assumed that the savings achieved through the efficiency improvement measures, particularly business excellence initiatives and digital transformation, as well as the initiatives to increase prices, would have a positive influence on the CGUs' operating margins. Under our Sustainability Commitments 2030, we will further reduce our emissions through conventional levers and carbon capture, utilisation, and storage (CCUS), circular economy, responsible land use, and water conservation. The projections for the estimated growth rates of the terminal value are based on country-specific long-term inflation rates.

The WACC rates for the Group were calculated using a two-phase approach, whereby a phase-one WACC rate was used to discount the payment surpluses for the first five years and a phase-two WACC discount rate was applied for the determination of the terminal value. The difference between the two WACC rates merely results from the downward adjustment for the perpetual growth rate as well as a long-term inflation differential adjustment in phase two. The credit spread as premium to the risk-free rate was derived from the rating of the homogenous peer group. The peer group is subjected to an annual review and adjusted if necessary.

The following key assumptions were applied in the determination of the recoverable amount based on the value in use for the CGU.

Goodwill impairment test assumptions

Group area/CGU[1]	Carrying amount of goodwill in €m		Weighted average cost of capital before taxes[2]		Weighted average cost of capital after taxes[2]		Perpetual growth rate	
	31 Dec. 2021	**31 Dec. 2022**	31 Dec. 2021	**31 Dec. 2022**	31 Dec. 2021	**31 Dec. 2022**	31 Dec. 2021	**31 Dec. 2022**
Western and Southern Europe	918.6	926.3	7.9%–10.2%	9.7%–13.6%	6.2%–8.0%	7.5%–10.3%	1.3%–2.0%	1.6%–2.0%
Benelux	222.3	222.3	8.3%	9.7%	6.8%	7.6%	1.9%	1.9%
Germany	370.7	379.0	7.9%	9.9%	6.2%	7.5%	2.0%	2.0%
France	190.9	190.9	8.0%	9.7%	6.4%	7.5%	1.3%	1.6%
Northern and Eastern Europe-Central Asia	781.8	763.4	7.6%–10.9%	8.6%–14.4%	6.5%–9.7%	7.0%–12.6%	1.9%–2.5%	2.0%–2.5%
Czechia	141.1	144.0	8.6%	10.4%	7.4%	8.8%	2.0%	2.0%
Poland	148.1	147.1	9.5%	12.8%	8.3%	11.1%	2.5%	2.5%
North America	4,598.6	4,852.7	9.4%	9.1%	7.7%	7.0%	2.2%	2.0%
Asia-Pacific	1,421.4	1,407.1	6.8%–15.7%	8.8%–19.4%	6.7%–13.2%	7.2%–16.5%	1.0%–5.4%	1.0%–5.5%
Australia	1,066.7	1,062.6	9.7%	9.9%	7.7%	7.5%	2.4%	2.5%
Bangladesh	8.5	8.2	15.7%	19.4%	13.2%	16.5%	5.4%	5.5%
India	221.6	211.8	13.2%	15.5%	10.3%	11.6%	4.0%	4.0%
Africa-Eastern Mediterranean Basin	444.2	418.7	8.4%–23.1%	10.1%–44.2%	7.0%–17.8%	8.0%–34.7%	1.6%–6.0%	1.9%–6.5%
Israel	76.9	72.1	8.4%	10.1%	7.0%	8.0%	1.6%	1.9%
Morocco	291.2	274.0	11.3%	14.8%	8.4%	10.5%	2.0%	2.0%
Total	**8,164.7**	**8,368.1**						

1) CGU = Cash-generating unit
2) Stated figure is the phase one WACC, before adjustment for growth. The second phase WACC, used to calculate the terminal value, is equal to the phase one WACC after adjustment for growth and long-term inflation differential.

As in the previous year, the goodwill impairment test did not lead to any impairment.

For the CGUs Bangladesh, Benelux, and France, marginal changes in the sustainable growth rate or in the operational plan as the basis for cash flow estimates or the weighted average cost of capital could cause the carrying amount to exceed the recoverable amount. Management does not rule out such a development. With a reduction of the growth rate of around 1.4 percentage points for the CGU Benelux, around 1.5 percentage points for the CGU Bangladesh, and around 1.6 percentage points for the CGU France, the recoverable amount corresponds to the respective carrying amount. With a decline in the planned results (EBIT) for each year of planning as well as in the terminal value of around 9.5% for the CGU Bangladesh, around 15.6% for the CGU Benelux, and around 15.9% for the CGU France, the recoverable amount and carrying amount are equal. With an increase in the weighted average cost of capital of around 1.3 percentage points for the CGU Bangladesh, around 1.5 percentage points for the CGU Benelux, and around 1.6 percentage points for the CGU France, the recoverable amount corresponds to the respective carrying amount. For the CGU Morocco, we assumed the fair value less costs of disposal on the basis of the stock market price.

Without the aforementioned changes, the recoverable amount exceeds the carrying amount of the CGU Bangladesh by €6.0 million, of the CGU Benelux by €119.4 million, and of the CGU France by €243.9 million as at the reporting date.

With a reduction of 2.6 percentage points in the growth rate, a WACC increase of 2.2 percentage points, or a decline of 17.1% in the planned result (EBIT) for each year of planning as well as in the terminal value, the recoverable amount for all other CGU continues to lie above the carrying amount.

Other intangible assets

Other intangible assets mainly include concessions and software. Spending on research and development of €121.8 million (previous year: 122.8) was recorded as an expense as it did not fulfil the recognition criteria for intangible assets.

9.2 Property, plant and equipment

Property, plant and equipment (31 December 2022)

€m	Land and buildings	Plant and machinery	Other operating equipment	Prepayments and assets under construction	**Total**
Cost					
1 January 2022	11,052.6	13,674.0	2,154.2	1,402.2	28,283.0
Currency translation	2.8	-87.1	-14.7	-1.4	-100.4
Business combinations	34.0	14.6	5.2	-1.3	52.5
Divestments	-4.2	-7.2	-0.3		-11.7
Additions	159.4	139.9	117.6	1,066.7	1,483.7
Disposals	-202.2	-322.4	-90.4	-3.6	-618.6
Reclassifications	145.7	455.2	123.8	-733.7	-9.0
Reclassifications to current assets	-41.9	-11.2	-0.6	-0.2	-54.0
31 December 2022	11,146.2	13,855.7	2,294.8	1,728.7	29,025.5
Depreciation					
1 January 2022	4,185.7	9,162.4	1,284.5	19.6	14,652.2
Currency translation	-23.7	-48.5	-12.2	-1.3	-85.7
Divestments	-1.1	-5.5	-0.8		-7.4
Additions	327.8	642.2	253.7		1,223.7
Impairment	81.5	87.8	5.9	17.5	192.7
Reversal of impairment	-30.3	-25.1	-0.7		-56.1
Disposals	-154.7	-300.8	-80.7	-3.2	-539.4
Reclassifications	4.7	-5.2	4.2	-5.7	-2.0
Reclassifications to current assets	-7.2	-5.7	-0.2		-13.1
31 December 2022	4,382.6	9,501.6	1,453.8	26.9	15,364.9
Carrying amount at 31 December 2022	**6,763.6**	**4,354.0**	**841.0**	**1,701.9**	**13,660.4**

Property, plant and equipment (31 December 2021)

€m	Land and buildings	Plant and machinery	Other operating equipment	Prepayments and assets under construction	**Total**
Cost					
1 January 2021	10,458.1	13,532.9	2,020.7	850.0	26,861.7
Currency translation	392.4	491.0	59.3	49.6	992.2
Business combinations	265.5	46.4	8.1	2.6	322.6
Divestments	-3.6	-7.2	-0.5	-0.3	-11.6
Additions	134.3	91.9	150.3	1,228.0	1,604.5
Disposals	-105.6	-224.1	-103.6	-1.6	-434.9
Reclassifications	384.3	432.5	79.6	-698.5	198.0
Reclassifications to current assets	-472.8	-689.4	-59.7	-27.6	-1,249.6
31 December 2021	11,052.6	13,674.0	2,154.2	1,402.2	28,283.0
Depreciation					
1 January 2021	3,957.3	8,916.5	1,159.8	14.9	14,048.5
Currency translation	129.2	324.3	39.6	0.5	493.6
Divestments	-0.8	-3.5	-0.5		-4.8
Additions	325.1	657.2	233.2		1,215.4
Impairment	35.0	28.3	1.0	8.7	73.0
Reversal of impairment	-73.7	-111.7	-13.2	-2.7	-201.3
Disposals	-52.5	-192.7	-91.9		-337.1
Reclassifications	67.3	6.3	-8.9	-1.8	62.8
Reclassifications to current assets	-201.2	-462.4	-34.5		-698.1
31 December 2021	4,185.7	9,162.4	1,284.5	19.6	14,652.2
Carrying amount at 31 December 2021	**6,866.8**	**4,511.6**	**869.7**	**1,382.7**	**13,630.8**

Exploitation land and mineral reserves are also recorded in land and buildings.

In the 2022 financial year, government grants of €75.6 million (previous year: 90.4) were deducted directly from the acquisition costs. The conditions attached to these grants have been met in full and there are no other uncertainties.

The carrying amount of property, plant and equipment pledged as security amounts to €5.9 million (previous year: 32.6). Borrowing costs of €9.9 million (previous year: 3.0) were recognised. The average capitalisation rate applied was 2% (previous year: 2%).

Right-of-use assets

The right-of-use assets reported under property, plant and equipment result from leases accounted for in accordance with IFRS 16. The following table shows the development of the right-of-use assets.

Right-of-use assets (31 December 2022)

€m	Land and buildings	Plant and machinery	Other operating equipment	**Total**
Cost				
1 January 2022	794.0	174.7	803.8	1,772.5
Currency translation	-12.8	-2.6	-6.3	-21.6
Business combinations	1.7	0.3	2.0	3.9
Divestments	-0.0	-0.0	-0.1	-0.2
Additions	125.9	49.2	72.1	247.2
Disposals	-14.8	-1.8	-28.3	-45.0
Reclassifications	0.2	-5.8	-0.3	-6.0
Reclassifications to current assets	0.3		0.0	0.4
31 December 2022	894.4	214.0	842.8	1,951.2
Depreciation				
1 January 2022	240.0	122.2	404.3	766.5
Currency translation	-5.5	-0.1	-5.8	-11.4
Divestments	-0.0	0.0	-0.1	-0.2
Additions	86.8	13.2	137.6	237.5
Impairment	5.1		0.3	5.3
Reversal of impairment	-5.2		-0.2	-5.4
Disposals	-6.7	0.9	-25.7	-31.5
Reclassifications	0.0	8.2	-10.2	-1.9
Reclassifications to current assets	0.5	0.0	0.1	0.6
31 December 2022	315.0	144.4	500.4	959.8
Carrying amount at 31 December 2022	**579.4**	**69.6**	**342.4**	**991.4**

Right-of-use assets (31 December 2021)

€m	Land and buildings	Plant and machinery	Other operating equipment	**Total**
Cost				
1 January 2021	709.0	180.5	743.2	1,632.8
Currency translation	31.8	3.8	20.7	56.4
Business combinations	23.5	12.6		36.0
Divestments	-1.4	-0.0		-1.5
Additions	85.8	3.1	104.2	193.1
Disposals	-20.6	-22.2	-43.2	-86.0
Reclassifications		0.7	-1.2	-0.4
Reclassifications to current assets	-34.0	-3.9	-20.0	-57.8
31 December 2021	794.0	174.7	803.8	1,772.5
Depreciation				
1 January 2021	180.3	101.1	304.5	585.9
Currency translation	9.7	3.0	11.5	24.2
Divestments	-0.6			-0.6
Additions	79.7	29.2	134.4	243.3
Impairment	3.8		0.3	4.0
Reversal of impairment	-11.2		-1.7	-12.8
Disposals	-8.3	-9.0	-35.5	-52.7
Reclassifications		-0.3		-0.3
Reclassifications to current assets	-13.4	-1.8	-9.2	-24.4
31 December 2021	240.0	122.2	404.3	766.5
Carrying amount at 31 December 2021	**554.0**	**52.5**	**399.5**	**1,005.9**

Information on lease liabilities is provided in Note 8.11 and Note 9.14 as well as on **page 243 f.** and **page 245**.

The following table contains all the cash outflows for leases.

Cash outflow for leases

€m	2021	**2022**
Principal payments for lease liabilities	252.7	236.7
Interest payments for lease liabilities	32.3	32.2
Short-term leases	106.8	125.0
Leases of low-value assets	7.1	6.2
Variable lease payments, that were not recognised in the lease liability	88.9	104.3
	487.9	**504.3**

Impairment of other intangible assets and property, plant and equipment

The impairments in the 2022 financial year are shown in the following table.

Impairment of other intangible assets and property, plant and equipment (reporting year)

€m	Other intangible assets	Land and buildings	Plant and machinery	Other operating equipment	Prepayments and assets under construction	Total
Western and Southern Europe	-0.0	-17.9	-29.1	-0.6	-0.6	-48.1
United Kingdom	-0.0	-8.9	-29.1	-0.6	-0.6	-39.1
Other		-9.0		-0.0	-0.0	-9.0
Northern and Eastern Europe-Central Asia	-3.5	-44.3	-32.2	-4.9	-16.6	-101.5
Russia	-3.5	-43.8	-31.4	-4.9	-16.6	-100.2
Other		-0.5	-0.8	-0.0		-1.3
North America	-0.0	-19.2	-26.5	-0.5	-0.3	-46.5
Asia-Pacific		-0.1	-0.0	-0.0		-0.1
Total	**-3.5**	**-81.5**	**-87.8**	**-5.9**	**-17.5**	**-196.3**

In view of the effects of the Russia-Ukraine war, Heidelberg Materials conducted an impairment review of intangible assets and property, plant and equipment in Russia. This resulted in total impairments of €100.2 million. This is due to significantly higher risk premiums and interest rates, which led to an increase in the cost of capital to 28.0%. The impairment mainly relates to the CGUs Cesla and HC RUS. Assets within the CGU Cesla were impaired by €55.4 million, with a carrying amount of €55.4 million and a value in use or fair value less costs of disposal totalling €0 million. Assets within the CGU HC RUS were impaired by €41.0 million, with a carrying amount of €183.3 million and a value in use or fair value less costs of disposal totalling €142.3 million.

Further impairments were recognised in North America and the United Kingdom.

In North America, the impairment of assets was tested on the basis of local cash-generating units (CGUs) and individual assets were impaired. The impairments relate in particular to the early commissioning of our new cement plant in Mitchell, Indiana. This resulted in total impairments of €46.5 million for the CGUs Glens Falls, Cementon, Mitchell, and Speed. Of this total, €30.7 million is attributable to Glens Falls, €3.2 million to Cementon, €5.8 million to Mitchell, and €6.8 million to Speed. The carrying amount was written off in full for all units. A cost of capital of 7.0% was used.

In the United Kingdom, the impairment of assets was tested on the basis of local cash-generating units (CGUs) or management areas. Impairment losses mainly related to individual CGUs within Hanson Quarry Products Europe and Cementitious, as well as impairments on closed sites. Assets with impairment losses within closed sites were impaired by €2.7 million, with a carrying amount of €297.4 million and a value in use or fair value less costs of disposal totalling €294.7 million. Assets of the CGUs within Hanson Quarry Products Europe were impaired by €31.3 million, with a carrying amount of €143.6 million and a value in use or fair value less costs of disposal of €112.3 million. The carrying amount of the CGU Cementitious of €23.3 million was impaired by €4.8 million to a value in use or fair value less costs of disposal of €18.5 million. The reasons for the impairment are increased capital and material costs, as well as a decline in demand due to the challenging economic situation. A cost of capital of 10.6% was used.

Impairment losses are shown in the additional ordinary expenses.

Reversal of impairment on other intangible assets and property, plant and equipment

Reversals of impairment losses in the 2022 financial year are shown in the following table.

Reversal of impairment on other intangible assets and property, plant and equipment (reporting year)

€m	Other intangible assets	Land and buildings	Plant and machinery	Other operating equipment	**Total**
Western and Southern Europe	0.2	28.7	25.1	0.7	54.6
United Kingdom		20.0	16.9	0.4	37.3
Other		8.6	8.2	0.3	17.3
Northern and Eastern Europe-Central Asia		0.2			0.2
North America		1.4			1.4
Total	**0.2**	**30.3**	**25.1**	**0.7**	**56.3**

Reversals of impairment losses are shown in the additional ordinary income.

Significant reversals of impairment losses relate to individual CGUs within Hanson Quarry Products Europe in the United Kingdom. Following the renewal of a mining concession, reversals of impairment losses on assets totalling €35.7 million were recognised to a carrying amount of €45.5 million. A cost of capital of 10.6% was used.

Impairment of other intangible assets and property, plant and equipment in the previous year

The impairments in the 2021 financial year are shown in the following table.

Impairment of other intangible assets and property, plant and equipment (previous year)

€m	Other intangible assets	Land and buildings	Plant and machinery	Other operating equipment	Prepayments and assets under construction	Total
Western and Southern Europe	-0.1	-30.4	-19.9	-0.9	-8.6	-59.9
United Kingdom	-0.1	-24.7	-15.5	-0.4	-8.4	-49.0
Other		-5.7	-4.4	-0.5	-0.2	-10.9
Northern and Eastern Europe-Central Asia			-1.6			-1.6
Africa-Eastern Mediterranean Basin		-4.2	-6.8	-0.1	-0.1	-11.1
Egypt		-4.2	-6.8	-0.1	-0.1	-11.1
Asia-Pacific		-0.4	-0.1	-0.0		-0.5
Total	**-0.1**	**-35.0**	**-28.3**	**-1.0**	**-8.7**	**-73.1**

The main impairments related to the CGUs in the United Kingdom and Egypt.

In the case of the United Kingdom, the impairment of assets was tested on the basis of local cash-generating units (CGUs) or management areas. Impairment losses mainly related to individual CGUs within Hanson Quarry Products Europe and Cementitious, as well as impairments on closed sites. In total, assets of the CGUs with impairment losses within Hanson Quarry Products Europe were impaired by €31.4 million, with a carrying amount of €94.5 million and a value in use or fair value less costs of disposal totalling €62.4 million. Assets of the CGUs within Cementitious were impaired by €12.1 million, with a carrying amount of €18.9 million and a value in use or fair value less costs of disposal of €6.5 million. Assets with impairment losses within closed sites were impaired by €5.2 million, with a carrying amount of €11.6 million and a value in use or fair value less costs of disposal totalling €6.3 million. The reasons for the impairment are increased costs for energy, materials, and CO_2 allowances. A cost of capital of 8.6% was used.

In the case of Egypt, the impairment, due to the closure of a plant with a carrying amount of €32.3 million, was made to the fair value less costs of disposal of €20.7 million on the basis of an external expert opinion.

Reversal of impairment on property, plant and equipment in the previous year
Reversals of impairment losses in the 2021 financial year are shown in the following table.

Reversal of impairment on property, plant and equipment (previous year)

€m	Land and buildings	Plant and machinery	Other operating equipment	Prepayments and assets under construction	**Total**
Western and Southern Europe	32.2	27.8	2.5	2.7	65.3
United Kingdom	21.3	21.4	2.1	2.7	47.6
Spain	10.5	6.4	0.4		17.3
Other	0.4				0.4
North America	41.5	83.8	10.6		135.9
Total	**73.7**	**111.7**	**13.2**	**2.7**	**201.3**

The main reversals of impairment losses related to the CGUs in North America, the United Kingdom, and Spain.

In North America, reversals of impairment losses were mainly applied to the assets of the West Region Cement management unit. The assets are part of the USA Region West disposal group, which was classified as held for sale on 23 May 2021 and sold on 1 October 2021.

Reversals of impairment losses on assets within Hanson Quarry Products Europe totalling €47.6 million were recognised in the United Kingdom to a carrying amount of €165.9 million as a result of expected increases in sales volumes and prices in individual CGUs. The recoverable amount is €184.2 million. A cost of capital of 8.6% was used.

In Spain, reversals of impairment losses were made on assets in southern Spain to the fair value less costs to sell. The assets were classified as held for sale on 10 November 2021 and sold on 1 November 2022.

9.3 Financial investments

This item includes investments in equity instruments. Firstly, participations in immaterial subsidiaries, joint ventures, and associates totalling €51.7 million (previous year: 49.2) are shown. These participations are still measured at cost. Secondly, this item contains financial investments, which are measured at fair value through profit or loss. These primarily include participations of €22.5 million (previous year: 84.6) on which Heidelberg Materials has no significant influence.

Additional information on the financial investments is provided in Note 10.1.

9.4 Other receivables and assets

The following table shows the composition of the financial and non-financial other receivables and assets.

Other receivables and assets

	31 December 2021		**31 December 2022**	
€m	Non-current	Current	**Non-current**	**Current**
Deposits paid	36.6	11.3	31.4	11.4
Miscellaneous operating receivables	42.5	104.1	25.6	120.1
Other receivables and assets that qualify as financial instruments	**79.1**	**115.4**	**57.0**	**131.5**
Overfunding of pension plans	948.7		702.6	
Contract assets	1.0	38.4	1.0	40.5
Other non-financial assets	57.6	20.4	61.8	14.7
Non-income tax receivables		190.5		199.7
Prepaid expenses and payments made on account	64.8	169.8	66.2	215.7
Other receivables and assets that do not qualify as financial instruments	**1,072.1**	**419.1**	**831.6**	**470.6**
	1,151.2	**534.5**	**888.6**	**602.1**

Other non-financial assets mainly include non-current claims for reimbursement against insurance companies for environmental and third-party liability damages amounting to €61.7 million (previous year: 57.2), as well as current claims for reimbursement against insurance companies for environmental and third-party liability damages amounting to €14.2 million (previous year: 19.7).

An explanation of the credit risks is provided in Note 10.3.

9.5 Inventories

In the reporting year, impairments of inventories of €54.6 million (previous year: 92.1) and reversals of impairment losses of €10.5 million (previous year: 14.9) were recognised.

9.6 Trade receivables

Trade receivables relate to contracts with customers within the scope of IFRS 15.

Information on valuation allowances and credit ratings as well as an explanation of credit risks is provided in Note 10.3.

Heidelberg Materials is party to several factoring agreements for the revolving sale of trade receivables. There are no repurchase obligations for these receivables. As at the reporting date, receivables of €911.7 million (previous year: 720.4) were sold under these agreements, of which €489.8 million (previous year: 720.4) were fully derecognised. The maximum exposure to loss from the continuing involvement amounts to €26.5 million (previous year: 57.3) and results from the partial coverage of credit and late payment risks, whereby the inherent risk from the continuing involvement is monitored as part of regular receivables management. The maximum exposure to loss substantially contains the carrying amount for the reserve account covering credit losses of pre-financed trade receivables as well as guarantees granted for this. The reserve account with a carrying amount of €11.4 million (previous year: 22.9) is reported in the cash and cash equivalents. Guarantees were granted in the amount of €10.8 million (previous year: 32.3). The management assumes that no significant risks or rewards remain because, as in the past, utilisation of the reserve accounts for the maximum exposure to loss is not anticipated. The fair value of the continuing involvement corresponds to the carrying amount. To ensure legal validity, trade receivables of €33.6 million (previous year: 30.9) were pledged as security.

A continuing involvement of €51.1 million was recognised for a factoring agreement, as the risks and rewards associated with the sold receivables amounting to €421.9 million were neither transferred nor retained, and the economic control remains with Heidelberg Materials since the buyer is unable to resell the receivables to third parties. The carrying amount of the continuing involvement in trade receivables sold is €51.1 million and results from the reserve account covering credit losses of pre-financed trade receivables amounting to €14.3 million, guarantees granted for this in the amount of €28.6 million, and the maximum late payment interest costs of €8.2 million. The corresponding liability of €51.9 million is reported in the other operating liabilities. At the time of the sale of the receivables, the fair value of the expected losses of €0.8 million is recognised in the financial result as an expense.

In connection with factoring transactions, the balance sheet items interest-bearing receivables with a gross carrying amount of €485.0 million (previous year: 372.7) and other current operating liabilities with a gross carrying amount of €1,815.5 million (previous year: 1,838.2) were netted; the netting amount totalled €386.5 million (previous year: 296.3). This results in a net carrying amount of €98.5 million (previous year: 76.4) and €1,429.0 million (previous year: 1,541.9) respectively.

9.7 Subscribed share capital

As at the reporting date of 31 December 2022, the subscribed share capital amounts to €579,275,700. It is divided into 193,091,900 shares; the shares are no-par value bearer shares. The pro rata amount of each share is €3.00, which corresponds to a proportionate amount of the subscribed share capital.

Authorised Capital
The Annual General Meeting held on 4 June 2020 authorised the Managing Board, with the consent of the Supervisory Board, to increase the company's subscribed share capital by a total amount of up to €178,500,000 by issuing new no-par value bearer shares in total in return for cash contributions and/or contributions in kind on one or more occasions in partial amounts until 3 June 2025 (Authorised Capital 2020). The shareholders must be granted subscription rights. However, the Managing Board is authorised by the Articles of Association, in certain cases described in more detail in the authorisation, to exclude the subscription rights of shareholders – i.e. in the event of a capital increase for cash in order to realise residual amounts, to service option or conversion rights, or to issue shares totalling up to 10% of the share capital at a near-market price; or in the event of a capital increase in return for contributions in kind for the purpose of acquiring companies or within the scope of implementing a dividend in kind/dividend option. As at 31 December 2022, the authorisation to issue new shares in return for cash contributions and/or contributions in kind forming the basis of the Authorised Capital 2020 had not been used.

Conditional share capital
In addition, the conditional share capital described below existed as at 31 December 2022: The Annual General Meeting of 9 May 2018 decided to conditionally increase the subscribed share capital by a further amount of up to €118,800,000, divided into up to 39,600,000 new no-par value bearer shares (Conditional Share Capital 2018). The conditional capital increase serves to back the issuance of option or conversion rights, or option or conversion obligations on HeidelbergCement AG shares. The conditional capital increase is only carried out insofar as the Managing Board issues warrant or convertible bonds under the authorisation until 8 May 2023 and the bearers of option or conversion rights make use of their rights. Warrant or convertible bonds may also be issued with option or conversion obligations. The shareholders generally have a subscription right to newly issued warrant or convertible bonds. The authorisation governs specific cases in which the Managing Board may exclude the subscription right of shareholders to warrant or convertible bonds. As at 31 December 2022, the authorisation to issue warrant or convertible bonds forming the basis of the Conditional Share Capital 2018 had not been used.

A corresponding volume limit as well as the deduction clauses ensure that the sum of all exclusions of subscription rights in the Authorised Capital 2020 and the Conditional Share Capital 2018 will not exceed a limit of 10% of the share capital existing at the time the authorisation to exclude the subscription right comes into force.

Authorisation to acquire treasury shares
Furthermore, the authorisation to acquire treasury shares described below existed as at 31 December 2022. On 6 May 2021, the Annual General Meeting authorised the company to acquire treasury shares up to 5 May 2026 once or several times, in whole or partial amounts, up to a total of 10% of the share capital at the time of the Annual General Meeting's resolution for any permissible purpose within the scope of the legal restrictions. The authorisation may not be used for the purpose of trading in treasury shares. At no time may more than 10% of the respective share capital be attributable to the acquired treasury shares combined with other shares which the company has already acquired and still possesses. The shares may be acquired via the stock exchange or by way of a public purchase offer or by means of a public call for the submission of offers to sell or by issuing rights to sell shares to the shareholders. The treasury shares acquired on the basis of the authorisation will be used by selling them via

the stock exchange or in another suitable manner while ensuring the equal treatment of the shareholders, or for any other purposes permitted by law. The Managing Board is authorised to cancel the acquired treasury shares without further resolution of the Annual General Meeting. The cancellation may also be effected without a capital decrease by adjusting the proportional amount of the remaining no-par value shares in the company's subscribed share capital. In both cases, the Managing Board is authorised to adjust the number of no-par value shares in the Articles of Association. Shareholders' subscription rights can be excluded in certain cases.

On 28 July 2021, the company announced that it would make use of this authorisation to launch a share buyback programme in August 2021 with a total volume of up to €1 billion (excluding incidental acquisition costs) and a maturity date of 30 September 2023. The share buyback will be carried out in various tranches via the stock exchange. The aim of the share buyback programme is to strengthen shareholder return. The company started the share buyback on 10 August 2021 with a first tranche in a planned volume of €300 to €350 million. A total of 5,324,577 shares were acquired by the completion of the first tranche on 2 December 2021. This corresponds to a nominal amount of €15,973,731 or 2.68% of the company's subscribed share capital. The average purchase price per share paid on the stock exchange was €65.68. The total price (including incidental acquisition costs) of the repurchased shares amounted to around €349.8 million. The share buyback was effected in the above-mentioned period on 83 trading days by a bank commissioned by the company exclusively via the Xetra trading of the Frankfurt Stock Exchange.

On 13 January 2022, the Managing Board resolved to cancel all 5,324,577 treasury shares purchased under the first tranche of the share buyback programme in the period from 10 August to 2 December 2021, with a reduction of €15,973,731 in the subscribed share capital. This corresponds to 2.68% of the company's subscribed share capital before cancellation and capital reduction. In doing so, the Managing Board has made use of the authorisation of the Annual General Meeting of 6 May 2021 to cancel acquired treasury shares without further resolution of the Annual General Meeting. Following the cancellation of the shares and the capital reduction, the subscribed share capital of HeidelbergCement AG amounts to €579,275,700 and is divided into 193,091,900 no-par value shares, each representing a notional amount of €3.00 of the subscribed share capital.

In addition, the company announced on 13 January 2022 that it would continue its share buyback programme earlier than originally planned. The second tranche with a planned volume of €300 to €350 million started on 7 March 2022 and was completed by 13 July 2022. A total of 6,906,281 shares were acquired. This corresponds to a nominal amount of €20,718,843 or 3.58% of the company's subscribed share capital. The average purchase price per share paid on the stock exchange was €50.16. The total price (including incidental acquisition costs) of the repurchased shares amounted to around €350.0 million. The share buyback was effected in the above-mentioned period on 83 trading days by an independent investment company commissioned by the company exclusively via the Xetra trading of the Frankfurt Stock Exchange.

The number of treasury shares as at 31 December 2022 is shown in the following overview:

Treasury shares

Number	Shares
1 January 2022	**5,324,577**
Cancellation of treasury shares	-5,324,577
Share buyback 2nd tranche	6,906,281
31 December 2022	**6,906,281**

As at 31 December 2022, the company holds 6,906,281 treasury shares, corresponding to a nominal amount of €20,718,843 or 3.58% of the company's subscribed share capital.

9.8 Share premium

The share premium changed by €16.0 million to €6,241.4 million compared with the previous year as a result of the cancellation of treasury shares.

9.9 Retained earnings

The following table shows the change in ownership interests in subsidiaries that do not lead to a change in control.

Changes in ownership interests in subsidiaries

€m	Change in share	Change in revenue reserves	Change in non-controlling interests	Change in equity
PT Indocement Tunggal Prakarsa, Indonesia	1.8%	-19.3	-57.9	-77.2
Other		-0.5	1.9	1.3
Total		**-19.8**	**-56.0**	**-75.8**

In the financial year, dividends of €458.3 million (previous year: 436.5), i.e. €2.40 per share (previous year: €2.20 per share), were paid to shareholders of HeidelbergCement AG.

The Managing Board and Supervisory Board propose the payment of a dividend of €2.60 on each of the participating 186,185,619 no-par value shares for the 2022 financial year. As at the reporting date of 31 December 2022, the number of no-par value shares entitled to dividends is calculated from 193,091,900 shares issued less the 6,906,281 treasury shares acquired in the 2022 financial year.

9.10 Other components of equity

The change of €164.7 million in the currency translation reserve is essentially attributable to the appreciation in the value of the US dollar against the euro.

9.11 Non-controlling interests

Subsidiaries with material non-controlling interests

PT Indocement Tunggal Prakarsa Tbk. (“Indocement”), Jakarta, Indonesia, is the material subsidiary with non-controlling interests in the Heidelberg Materials Group. Indocement is a leading Indonesian manufacturer of high-quality cement and special cement products that are sold under the brand name Tiga Roda. Indocement has several subsidiaries that produce ready-mixed concrete, aggregates, and trass. Non-controlling interests hold 45.3% (previous year: 47.1%) of the capital or voting rights in the Indocement Group, which is included in the Asia-Pacific Group area. The Indocement share is listed on the stock exchange in Jakarta, Indonesia.

Non-controlling interests in the equity of Indocement amount to €491.9 million (previous year: 568.8). The profit for the financial year attributable to non-controlling interests amounts to €48.1 million (previous year: 49.3). In the 2022 financial year, Indocement paid dividends of €53.9 million (previous year: 52.5) to non-controlling interests.

The following tables summarise the key financial information of the Indocement Group excluding goodwill allocated to the CGU.

Statement of comprehensive income Indocement Group

€m	2021	2022
Revenue	870.2	1,037.3
Depreciation and amortisation	-79.9	-91.5
Result from current operations	**119.7**	**128.5**
Additional ordinary result	-0.8	-2.5
Earnings before interest and taxes (EBIT)	**118.8**	**126.0**
Interest income	12.6	6.6
Interest expenses	-1.6	-2.7
Other financial income and expenses	-1.5	3.7
Profit before tax	**128.3**	**133.7**
Income taxes	-27.6	-27.6
Profit for the financial year	**100.7**	**106.1**
Other comprehensive income	107.0	-31.2
Total comprehensive income	**207.7**	**74.9**

Assets and liabilities Indocement Group

€m	2021	**2022**
Intangible assets	1.0	1.6
Property, plant and equipment	939.9	925.8
Financial fixed assets	8.3	10.5
Other non-current assets	10.6	9.3
Non-current assets	**959.9**	**947.2**
Cash and cash equivalents	378.5	268.7
Other current assets	307.2	329.5
Current assets	**685.7**	**598.2**
Total assets	**1,645.6**	**1,545.4**
Non-current financial liabilities	7.0	37.6
Non-current provisions	36.0	25.1
Other non-current liabilities	17.2	16.9
Non-current liabilities	**60.3**	**79.7**
Current financial liabilities	10.5	21.6
Current provisions	2.6	8.0
Trade payables	172.8	181.4
Other current liabilities	101.9	77.4
Current liabilities	**287.9**	**288.3**
Total liabilities	**348.2**	**368.0**

9.12 Pension provisions

Defined contribution plans

The sum of all pension expenses in connection with defined contribution plans amounted to €118.5 million (previous year: 115.2). In the 2022 financial year, the contributions to the social security programmes came to €73.7 million (previous year: 70.0).

Actuarial assumptions

The significant actuarial assumptions on which the calculations of the defined benefit obligation are based are summarised in the following table (weighted presentation).

Actuarial assumptions

	Discount rate		Pension increase rate		Mortality table
	2021	**2022**	2021	**2022**	
Group	2.11%	4.84%	2.82%	2.69%	-
North America	2.63%	5.30%	–	–	USA: PRI-2012; Canada: CPM 2014
United Kingdom	2.00%	4.80%	3.01%	2.84%	Different tables based on “S3” series
Germany	1.30%	4.20%	1.75%	2.25%	Heubeck 2018 G

The mortality tables in the United Kingdom, the USA, and Canada have been modified to consider future improvements in life expectancy and in many cases are additionally adjusted based on company-specific experience. With regard to the overfunded pension plans for which an asset ceiling has not been applied, Heidelberg Materials has the unconditional entitlement to the pension plan surplus if the plan is wound up.

Development of defined benefit plans

In the 2022 financial year, defined benefit obligations amounting to €2,934.4 million (previous year: 4,287.5) existed in the Group, which were essentially covered by plan assets. In addition, there were direct agreements of €654.8 million (previous year: 911.2). Of this figure, €178.2 million (previous year: 243.5) related to obligations for health care benefits.

The following table shows the financing status of these plans and their presentation in the balance sheet.

Development of defined benefit plans

	Defined benefit obligation (DBO) (a)		Fair value of plan assets (b)		Effects of asset ceiling (c)		Net defined benefit liability (a-b+c)	
€m	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**
Balance at 1 January	**5,374.9**	**5,198.7**	**4,990.8**	**5,170.8**	**30.3**	**22.0**	**414.4**	**49.9**
Current service cost	36.5	29.7					36.5	29.7
Past service cost	-2.8	-3.0					-2.8	-3.0
Plan settlements	0.7	0.5					0.7	0.5
Interest cost	82.9	106.9			0.4	0.4	83.3	107.3
Interest income			74.9	107.3			-74.9	-107.3
Administrative expenses paid by the plan			-4.6	-7.6			4.6	7.6
Defined benefit costs recognised in profit and loss	**117.3**	**134.1**	**70.3**	**99.7**	**0.4**	**0.4**	**47.4**	**34.8**
Remeasurements recognised in other comprehensive income	**-248.3**	**-1,371.0**	**21.7**	**-1,376.7**	**-10.4**	**-19.2**	**-280.4**	**-13.5**
Employer contributions			38.3	23.1			-38.3	-23.1
Employee contributions	1.3	1.5	1.3	1.5				
Benefits paid by the company	-66.9	-61.5					-66.9	-61.5
Benefits paid by the fund	-262.7	-282.3	-262.7	-282.3				
Cash flows in the period	**-328.3**	**-342.3**	**-223.1**	**-257.7**			**-105.2**	**-84.6**
Change in consolidation scope	2.2	0.3	1.8				0.4	0.3
Disposal groups	-0.3						-0.3	
Exchange rate changes	281.2	-30.6	309.3	-76.1	1.7	-0.4	-26.4	45.1
Other reconciling items	**283.1**	**-30.3**	**311.1**	**-76.1**	**1.7**	**-0.4**	**-26.3**	**45.4**
Balance at 31 December	**5,198.7**	**3,589.2**	**5,170.8**	**3,560.0**	**22.0**	**2.8**	**49.9**	**32.0**
North America	1,370.4	1,067.3	1,130.6	855.9			239.8	211.4
United Kingdom	2,813.6	1,775.5	3,760.9	2,464.8	21.9	2.7	-925.4	-686.6
Germany	512.5	365.8	108.7	91.4			403.8	274.4
Other countries	502.2	380.6	170.6	147.9	0.1	0.1	331.7	232.8
Total	**5,198.7**	**3,589.2**	**5,170.8**	**3,560.0**	**22.0**	**2.8**	**49.9**	**32.0**
Thereof non-current provisions							908.1	639.1
Thereof current provisions							90.5	95.5
Thereof other long-term operating receivables (overfunding of pension schemes)							-948.7	-702.6

Breakdown of defined benefit obligation

The following tables show the defined benefit obligation divided into the underlying plan types and the different member groups.

Defined benefit obligation by plan type

€m	2021	**2022**
Defined benefit pension plans	4,955.2	3,411.0
Plans for health care costs	243.5	178.2
Total defined benefit obligation	**5,198.7**	**3,589.2**
Thereof related to wholly or partly funded plans	4,287.5	2,934.4
Thereof related to wholly unfunded plans	911.2	654.8

Defined benefit obligation by member groups

€m	2021	**2022**
Active members	751.0	502.2
Deferred vested members	1,342.3	812.0
Pensioners	3,105.4	2,275.0
Total defined benefit obligation	**5,198.7**	**3,589.2**

Development in the income statement

Of the total pension expenses of €34.8 million (previous year: 47.4), €34.8 million (previous year: 39.0) are shown in the personnel costs or in other operating expenses, and an amount of €0.0 million (previous year: 8.4) in other financial result.

Remeasurements recognised in other comprehensive income

In the 2022 financial year, the actuarial gains from the defined benefit obligation amounting to €1,371.0 million (previous year: 248.3) have arisen mainly from the increase in the discount rate on which the actuarial calculation is based, partially offset by the rise in inflation expectations.

The actuarial gains and losses can be broken down into effects from the adjustment of financial assumptions resulting in gains of €1,359.1 million (previous year: 271.5), effects from experience adjustments resulting in a loss of €29.1 million (previous year: 17.5), and effects from changes in demographic assumptions resulting in gains of €41.0 million (previous year: loss of 5.7), essentially attributable to the adjustment of assumptions relating to a reduction in future life expectancy in the United Kingdom.

Sensitivity analysis of defined benefit obligation

Changes in the discount rate, pension increase rate, and life expectancy affect the income statement of the following year and the defined benefit obligation of pension plans. The sensitivities to changes in assumptions as shown below are determined by changing one assumption as indicated and keeping all other assumptions constant. In reality, multiple assumptions may change at the same time, and changing one parameter may lead to a change in another parameter.

Sensitivity analysis of defined benefit obligation (pension plans)

€m		2021	**2022**
Defined benefit obligation		4,955.2	3,411.0
	+0.5%	4,633.6	3,244.1
Discount rate	−0.5%	5,317.1	3,593.1
	+0.25%	5,063.3	3,464.1
Pension increase rate	−0.25%	4,854.0	3,359.9
	+1 year	5,182.4	3,537.5
Life expectancy	−1 year	4,728.1	3,283.7

Breakdown of plan assets

The plan assets originate primarily from North America with 24% (previous year: 22%) and the United Kingdom with 69% (previous year: 73%). The plan assets can be divided into the following categories:

Breakdown of plan assets

€m	2021	**2022**
Cash and cash equivalents	322.6	126.6
Equity instruments	581.5	438.4
Derivatives	254.2	144.4
Nominal government bonds	986.4	753.3
Nominal corporate bonds	712.6	532.0
Index linked bonds	1,712.8	1,121.0
Real estate	164.1	137.0
Insurance policies	114.1	87.1
Other	322.5	220.2
Total	**5,170.8**	**3,560.0**

The actual return on plan assets amounted to €−1,269.3 million (previous year: 96.6). The negative return in 2022 is mainly due to the orientation of the asset allocation to the defined benefit obligations, especially in the United Kingdom and the USA. In both countries, plan assets have decreased in essentially the same proportion as the defined benefit obligations, but the combined effect on the financial position is very limited.

The majority of the Group's plan assets are based directly on quoted market prices for the invested assets or, in the case where investment funds are used, indirectly based on the quoted value of the underlying investments. Exceptions are that in the United Kingdom, a portion of the assets needs to be estimated as at the end of the year, as detailed asset information is not available or cannot be provided in time for the adoption of the consolidated financial statements by the Managing Board. The assets without a quoted market price (totalling € 74.5 million) consist of insurance policies primarily in the United Kingdom. As a rule, the plan assets do not include any significant own financial instruments, property occupied by, or other assets used by Heidelberg Materials.

Cash flows
Heidelberg Materials paid €61.5 million (previous year: 66.9) directly to the pension recipients and €23.1 million (previous year: 38.3) as employer contributions to the plan assets. The decline in employer contributions compared with 2021 is primarily due to a non-recurring effect arising from a lower employer contribution in the USA in 2022. In 2023, Heidelberg Materials expects to make pension payments of €57.1 million and employer contributions to the plan assets of €42.4 million.

Over the next ten years, average annual benefits of €300.8 million are expected to be paid to the pension recipients either in the form of direct payments or in the form of payments from the plan assets. The average duration of the obligations is 10.4 years (previous year: 14.1). The decrease in duration is mainly due to higher discount rates, particularly in the United Kingdom.

Multi-employer pension plans
Heidelberg Materials participates in multi-employer pension plans (MEPPs), predominantly in North America, which award some unionised employees fixed benefits after their retirement. These MEPPs are accounted for as defined contribution plans because it is not possible to isolate the individual company components for these plans. The contributions are determined on the basis of collective bargaining. Contributions of €13.0 million (previous year: 14.6) were paid in 2022. The funding status of these pension plans could be affected by adverse developments in the capital markets, demographic changes, or increases in pension benefits. If one of the participating companies no longer pays contributions into the MEPP, all other parties concerned will be held liable for the obligations that have not been covered. For 2023, contributions of €8.1 million are expected in North America. The withdrawal liability of these plans as at 31 December 2022 would amount to €68.9 million (previous year: 69.8), should Heidelberg Materials decide to withdraw. Heidelberg Materials has provisions of €12.8 million (previous year: 15.4) for these liabilities, which are shown under miscellaneous other provisions.

9.13 Other provisions

The following table explains the development of other provisions.

Other provisions

€m	Provisions for damages and environmental obligations	Other environmental provisions	Miscellaneous other provisions	**Total**
1 January 2022	**366.9**	**826.1**	**632.3**	**1,825.3**
Change in consolidation scope		2.6	0.0	2.6
Currency translation	22.9	27.9	-1.4	49.5
Reclassification	2.2	-6.0	11.0	7.2
Utilisation	-18.6	-46.5	-112.3	-177.4
Release	-48.4	-147.6	-73.7	-269.8
Offset	-9.8	-12.8	-61.6	-84.2
Addition	65.5	75.5	146.4	287.4
31 December 2022	**380.7**	**719.2**	**540.8**	**1,640.7**

The offsetting line includes the compensation of obligations against the corresponding claims for reimbursement and the offsetting of obligations in kind against other assets, particularly from emission rights.

The maturities of the other provisions can be broken down as follows:

Maturities of other provisions

€m	Provisions for damages and environmental obligations	Other environmental provisions	Miscellaneous other provisions	**Total**
Maturity ≤ 1 year	39.9	41.7	194.6	276.2
Maturity > 1 year ≤ 5 years	220.7	226.3	281.0	727.9
Maturity > 5 years	120.1	451.2	65.2	636.5
	380.7	**719.2**	**540.8**	**1,640.7**

Provisions for damages and environmental obligations

Provisions for damages and environmental obligations result from discontinued operations that were transferred to the Heidelberg Materials Group as part of the takeover of the Hanson Group in 2007. The obligations are therefore not linked to the continuing operations of the Heidelberg Materials Group.

The provisions for damages concern legal proceedings before US courts. The claims relate to health problems allegedly caused by the sale of products containing asbestos. The provisions to be formed are measured at the present value of the expected expenses, using reliable estimates of the development of costs for the next 15 years. The environmental liability claims pertain to remediation obligations in connection with the sale of chemical products by a former Hanson participation.

The provisions are offset by claims for reimbursement against environmental and third-party liability insurers. As at 31 December 2022, the claims amount to €75.9 million (previous year: 76.9), of which €61.7 million (previous year: 57.2) is recorded under other non-current receivables and assets and €14.2 million (previous year: 19.7) under other current receivables and assets.

Other environmental provisions

The other environmental provisions include recultivation, environmental, and asset retirement obligations.

Recultivation obligations relate to legal and constructive obligations to backfill and restore raw material quarrying sites. The provisions recognised for these obligations are measured in accordance with the extraction progress on the basis of the best cost estimate for fulfilling the obligation. As at the reporting date, these provisions amounted to €500.3 million (previous year: 579.6).

Provisions for environmental obligations are recognised on the basis of contractual or official regulations and essentially include expenses connected with the cleaning up of contaminated areas and the remediation of extraction damages. The provisions are measured at the present value of the expected expenses. These provisions amount to a total of €73.6 million (previous year: 85.0).

The provisions for asset retirement obligations pertain to obligations arising in connection with the removal of installations (e.g. conveying systems at rented locations), so that a location can be restored to its contractually agreed or legally defined state after the end of its useful life. As at the reporting date, provisions for asset retirement obligations of €145.2 million (previous year: 161.5) had been recognised.

Miscellaneous other provisions
Miscellaneous other provisions exist in particular for restructuring obligations, other litigation risks, compensation obligations, the obligation to return emission rights, and obligations to personnel.

The provisions for restructuring obligations concern expenses for various optimisation programmes, such as the closure of plants. Provisions of €46.2 million (previous year: 73.2) had been recognised for this purpose as at the reporting date.

Because of pending legal action against the Group, provisions for litigation risks, including those relating to pending antitrust proceedings, amounting to €113.8 million (previous year: 121.1) were recognised in the balance sheet. These obligations are assessed as most likely, provided that other estimates do not lead to a fairer evaluation as a result of specific probability distributions.

Provisions for compensation obligations relate to the Group's obligations arising from occupational accidents. As at the reporting date, provisions of €63.3 million (previous year: 71.7) had been formed for this purpose.

As at the reporting date, provisions for emission rights of €35.7 million (previous year: 64.3) had been recognised.

Obligations to personnel include the provision for the long-term bonus plan (management and capital market component) of €27.6 million (previous year: 35.6), as well as provisions for multi-employer pension plans amounting to €12.8 million (previous year: 15.4).

Additionally, there are provisions for a variety of minor issues.

Impact of interest effects
Provisions are measured at their present value, which is determined using a pre-tax interest rate. For this purpose, Heidelberg Materials uses the risk-free interest rate of government bonds from the respective countries, taking into account the relevant term. The risks specific to the liability are taken into account in the estimate of future cash outflows.

Changes in the interest rate led to a decrease of €126.7 million in other environmental provisions and miscellaneous other provisions. Compounding effects of €14.9 million led to an increase in other environmental provisions and miscellaneous other provisions. Positive effects from the change in interest rate of €37.8 million and negative compounding effects of €11.1 million for provisions for damages and environmental obligations are included in the expenses from discontinued operations.

9.14 Liabilities

Trade payables at year end include liabilities of €398.8 million (previous year: 377.6) settled by external payment service providers (reverse factoring). The use of payment service providers does not change the disclosure of the trade payables concerned because this does not result in any significant changes to the contractual terms of the liabilities. The aggregation of liabilities with individual payment service providers has not resulted in an increased liquidity risk.

The following table shows the composition of other financial liabilities and operating liabilities, broken down into financial and non-financial.

Other financial liabilities and operating liabilities

	31 December 2021		**31 December 2022**	
€m	Non-current	Current	**Non-current**	**Current**
Lease liabilities	856.0	203.1	854.2	196.9
Non-controlling interests with put options		79.9		87.3
Derivative financial instruments	5.4	84.4	113.9	122.4
Miscellaneous other financial liabilities	45.4	45.8	32.9	59.1
Miscellaneous other operating liabilities	27.3	759.1	28.4	695.6
Other liabilities that qualify as financial instruments	**934.1**	**1,172.3**	**1,029.4**	**1,161.3**
Employee liabilities		447.4		404.9
Contract liabilities	1.3	127.8	1.6	134.7
Prepaid expenses and other non-financial liabilities	22.0	207.6	23.6	193.9
Other liabilities that do not qualify as financial instruments	**23.3**	**782.8**	**25.2**	**733.5**

The contract liabilities relate to prepayments received by customers for performance obligations not yet fulfilled as at the reporting date. Current contract liabilities of €127.8 million as at 31 December 2021 were fully recognised in revenue in the 2022 financial year.

Explanations on the derivative financial instruments are provided in Note 10.2.

10 Additional disclosures on financial instruments

10.1 Financial instruments by class

The following table assigns the individual balance sheet items for the financial instruments to classes and measurement categories of IFRS 9. In addition, the aggregate carrying amounts for each measurement category and the fair values for each class are depicted.

Carrying amounts and fair values of financial instruments

€m	Category of IFRS 9[1]	31 December 2021 Carrying amount	31 December 2021 Fair value	31 December 2022 Carrying amount	31 December 2022 Fair value
Assets					
Financial investments	FVTPL	99.4	99.4	35.8	35.8
Loans and other interest-bearing receivables	AC	169.3	179.9	254.7	259.5
Trade receivables and other receivables	AC	1,644.0	1,644.0	1,911.9	1,911.9
Trade receivables and other receivables	FVTPL	387.7	387.7	316.6	316.6
Cash and cash equivalents	AC	2,667.2	2,667.2	1,412.4	1,412.4
Cash and cash equivalents	FVTPL	447.9	447.9	41.7	41.7
Derivatives – hedge accounting	Hedge	29.7	29.7	52.6	52.6
Derivatives – held for trading	FVTPL	82.1	82.1	71.0	71.0
Liabilities					
Bonds payable, bank loans, and miscellaneous other financial liabilities	AC	6,997.5	7,318.3	5,735.2	5,528.0
Trade payables and miscellaneous operating liabilities	AC	3,966.8	3,966.8	4,067.0	4,067.0
Derivatives – hedge accounting	Hedge	5.3	5.3	152.1	152.1
Derivatives – held for trading	FVTPL	84.5	84.5	84.2	84.2
Non-controlling interests with put options	AC	79.9	79.9	87.3	87.3

1) AC: Amortised cost, FVTPL: Fair value through profit or loss, Hedge: Hedge accounting

Fair value disclosures

For level 1, the fair value is determined using prices quoted on an active market (unadjusted) for identical assets or liabilities to which Heidelberg Materials has access on the reporting date. For level 2, the fair value is determined using a discounted cash flow model on the basis of input data that does not involve quoted prices classified in level 1, and which is directly or indirectly observable. The fair values of level 3 are calculated using measurement models that include factors that cannot be observed on the active market.

The following table shows the fair value hierarchies for the assets and liabilities that are measured at fair value in the balance sheet.

Fair value hierarchy of financial assets and liabilities measured at fair value in the balance sheet

	31 December 2021			**31 December 2022**		
€m	Level 1	Level 2	Level 3	**Level 1**	**Level 2**	**Level 3**
Assets						
Financial investments	14.8		84.6	13.3		22.5
Trade receivables and other receivables		387.7			316.6	
Cash and cash equivalents	447.9			41.7		
Derivatives – hedge accounting		14.6	15.1		14.5	38.1
Derivatives – held for trading		82.1			71.0	
Liabilities						
Derivatives – hedge accounting		4.7	0.6		106.7	45.4
Derivatives – held for trading		84.5			84.2	

For financial investments in level 1, the fair value is determined using the published price quotations as at the reporting date.

The financial investments in level 3 include participations on which Heidelberg Materials has no significant influence. The decrease in the financial year mainly results from a participation holding shares in early-stage investments being reclassified into investments in associates. The fair value measurement is mainly carried out using the multiplier method, which determines the proportionate enterprise value based on company-specific variables using EBITDA or revenue multipliers. The revaluation through profit or loss is reported in the result from other participations. Uncertainties relating to the determination of the fair value of these investments mainly result from the change in the multipliers used, as no quoted price on an active market exists. If the multipliers used were increased or decreased by 10.0 percentage points, the fair value of these investments would increase or decrease by €0.2 million.

The receivables are receivables that are intended for sale in the scope of factoring transactions. The fair values were primarily determined using the prices of recent transactions.

Cash and cash equivalents include highly liquid money market funds whose fair value was determined by multiplying the shares by the price quotation as at the reporting date.

Derivative financial instruments in level 2, both those designated as hedges and those held for trading, are measured using recognised actuarial models based on observable input parameters. The derivative financial instruments designated as hedges in level 3 are embedded derivatives from long-term power purchase agreements (PPA) for solar and wind power plants in Poland. The changes in value during the financial year result exclusively from the remeasurement at fair value and were recognised directly in equity through other comprehensive income. The fair value is determined by discounting the expected future cash flows. Uncertainties relating to the determination of the fair value mainly result from the market price for electricity. Any changes to the market situation could have a positive or negative impact on this figure. If the electricity prices used were increased or decreased by 10.0 percentage points, the fair value would increase or decrease by €15.0 million (previous year: 4.1). For these items, the fair value always corresponds to the carrying amount.

The following table shows the fair value hierarchies for the assets and liabilities that are not measured at fair value in the balance sheet, but whose fair value is reported.

Fair value hierarchy of financial assets and liabilities not measured at fair value in the balance sheet

	31 December 2021			**31 December 2022**		
€m	Level 1	Level 2	Level 3	**Level 1**	**Level 2**	**Level 3**
Assets						
Loans and other interest-bearing receivables		179.9			259.5	
Trade receivables and other operating receivables – amortised cost		1,644.0			1,911.9	
Cash and cash equivalents – amortised cost	2,667.2			1,412.4		
Liabilities						
Bonds payable, bank loans, and miscellaneous other financial liabilities	6,431.9	886.4		5,065.9	462.1	
Trade payables and miscellaneous operating liabilities		3,966.8			4,067.0	
Non-controlling interests with put options			79.9			87.3

The fair values of the non-current loans, other non-current operating receivables, bank loans, and other non-current financial and operating liabilities correspond to the present values of the future payments, taking into account the current interest parameters.

The fair values of the listed bonds correspond to the nominal values multiplied by the price quotations at the reporting date. For the financial instruments with short-term maturities, the carrying amounts on the reporting date represent appropriate estimates of the fair values.

Non-controlling interests with put options in level 3 are liabilities that relate to put options resulting from tender rights of non-controlling interests. The calculation of the fair value is based on the respective contractual agreements for paying off the non-controlling interests in the event of a tender. These usually provide an approximation of the proportionate enterprise value based on company-specific variables and multipliers. If the tender is only possible at a later point in time, the payoff amount is discounted using an appropriate market interest rate. For the German partnerships, the fair value is calculated using a discounted cash flow model. In this respect, the cash flows based on the companies' underlying plans were discounted with a risk-adjusted discount rate (WACC).

The assessment as to whether financial assets and liabilities that are accounted for at fair value are to be transferred between the levels of the fair value hierarchy will take place at the end of each reporting period. No reclassifications were carried out in the reporting period.

The following table shows the net gains or losses from the financial instruments by measurement category.

Net gains or losses

€m	Measurement category	2021	**2022**
Financial assets	FVTPL	17.4	-21.2
Financial assets	AC	-95.3	38.8
Derivatives – held for trading	FVTPL	80.5	-24.0
Financial liabilities	AC	-1.0	-96.2
		1.6	**-102.6**

The net result of financial assets at fair value through profit or loss is essentially derived from the measurement affecting profit or loss. The net result of financial assets at amortised cost is made up of impairment losses of €22.8 million (previous year: 8.8), losses of €1.8 million (previous year: 5.0) from the derecognition of operating and interest-bearing receivables, and currency gains of €63.4 million (previous year: currency losses of 81.5). The net result of derivative financial instruments held for trading comprises currency and interest rate effects. For financial liabilities at amortised costs, the net result primarily includes effects from currency translation.

The following table shows the total interest income and expenses for the financial instruments. All interest results from financial receivables and financial liabilities measured at amortised cost.

Total interest income and expense

€m	2021	**2022**
Total interest income	29.1	31.7
Total interest expense	-198.1	-122.9
	-169.0	**-91.2**

10.2 Derivative financial instruments and hedging relationships

The following table shows the nominal values and fair values of the derivative financial instruments.

Derivative financial instruments

	31 December 2021		**31 December 2022**	
€m	Nominal value	Fair value	**Nominal value**	**Fair value**
Assets				
Cash flow hedges				
Currency forwards			3.3	0.1
Interest rate swaps			500.0	9.3
Commodity derivatives	32.5	20.1	33.9	43.2
Fair value hedges				
Interest rate swaps[2]	750.0	9.6		
Derivatives held for trading				
Currency forwards	37.4	1.0	11.2	0.1
Foreign exchange swaps	4,847.3	51.8	2,851.3	40.6
Cross-currency interest rate swaps[1]	34.8	10.7	821.3	29.9
Commodity derivatives[3]	459.4	18.6	0.7	0.4
	6,161.5	**111.8**	**4,221.7**	**123.6**
Liabilities				
Cash flow hedges				
Currency forwards			24.3	1.0
Commodity derivatives	3.5	0.8	93.2	46.2
Fair value hedges				
Interest rate swaps[2]	750.0	4.5	750.0	104.9
Derivatives held for trading				
Currency forwards	35.5	1.2	21.4	0.9
Foreign exchange swaps	2,957.8	24.6	5,024.0	76.9
Cross-currency interest rate swaps[1]	1,358.3	38.3	638.3	6.4
Commodity derivatives[3]	464.6	20.4		
	5,569.8	**89.8**	**6,551.2**	**236.3**

1) Nominal values of €821.3 million (previous year: 34.8) relate to cross-currency interest rate swaps with positive fair values of €29.9 million (previous year: 4.4). Nominal values of €638.3 million (previous year: 1,358.3) relate to cross-currency interest rate swaps with negative fair values of €-6.4 million (previous year: -32.0), which are shown on the assets side in the amount of €0.0 million (previous year: 6.3) and on the liabilities side in the amount of €-6.4 million (previous year: -38.3) because of the separation into long-term and short-term components of the swaps.
2) Nominal values of €0.0 million (previous year: 750.0) relate to interest rate swaps with positive fair values of €0.0 million (previous year: 5.4). Nominal values of €750.0 (previous year: 750.0) million relate to interest rate swaps with negative fair values of €-104.9 million (previous year: -0.3), which are shown on the assets side in the amount of €0.0 million (previous year: 4.2) and on the liabilities side in the amount of €-104.9 million (previous year: -4.5) because of the separation into long-term and short-term components of the swaps.
3) In the previous year, the commodity derivatives contained mainly CO_2 forwards.

The derivatives contracted by Heidelberg Materials are partly subject to legally enforceable netting agreements (ISDA Agreement or German Master Agreement for Financial Derivatives Transactions), which, however, do not permit netting of receivables and liabilities in the balance sheet in accordance with IAS 32.42. The right to offset only exists in the case of delayed payment or if a contracting party becomes insolvent. The presentation in the balance sheet is therefore shown on a gross basis.

As at the reporting date, derivatives with a positive carrying amount of €123.6 million (previous year: 111.8) and corresponding derivatives with a negative carrying amount of €-236.3 million (previous year: -89.8) were subject to netting agreements. Taking these agreements into consideration, a calculated netting amount of €44.7 million (previous year: 59.8) would result at the reporting date. Accordingly, the derivatives would have positive net carrying amounts of €78.9 million (previous year: 52.0) and negative net carrying amounts of €-191.6 million (previous year: -30.0).

At Heidelberg Materials, derivative financial instruments are generally used for economic hedging purposes arising from operational business or refinancing activities. In order to correct the accounting mismatch between the hedging instrument and the hedged item, hedges are designated in individual cases (hedge accounting).

Cash flow hedges

The hedging of currency risks arising from long-term investment projects, which were hedged by appropriate cash holdings in foreign currencies, expired in the current financial year.

Our Group trading companies hedge significant short-term purchase contracts in foreign currencies through currency forwards. The features of the hedging instruments match those of the hedged items. The hedge ratio is 100%.

The new bond issues planned for the 2023 financial year are hedged by several rolling interest rate swaps. The gains on the expired interest rate swaps were recognised in the cash flow hedge reserve and will be reclassified to the income statement continuously over the term of the bond from the date of the new bond issue. The weighted average hedge rate of the interest rate swaps is 1.4%. The hedge ratio is 100%.

As an energy-intensive company, Heidelberg Materials is exposed to the energy price risk in its fuel and electricity procurement activities. In Northern Europe, a small proportion of the future electricity and gas oil deliveries are hedged using electricity and gas oil forward contracts with terms of up to three years. In Poland, electricity prices are secured until 2032 through two long-term power purchase agreements (PPA). In principle, the main contract features of the hedging instruments correspond to the features of the hedged items. In the electricity hedges in Northern Europe, 10% (previous year: 38%) of the short-term and 5% (previous year: 6%) of the long-term planned electricity purchases are hedged. In the case of the Polish electricity hedge, the hedge ratio is 27% (previous year: 10%). The hedge ratio for the short-term gas oil hedges is 46% (previous year: 47%). There is no significant ineffectiveness in the cash flow hedges. The hedging instruments and hedged items designated as hedges have the following impact on the balance sheet.

Cash flow hedges by risk category

	2021		2022		
€m	Currency risk	Electricity price risk	Currency risk	Interest risk	Electricity price risk
Hedging instruments					
Balance sheet items and carrying amounts					
Derivative financial instruments (assets)		10.3	0.1	9.3	33.6
Current derivative financial instruments (assets)		9.6			9.6
Cash and cash equivalents (assets)	11.8				
Other non-current financial liabilities		-0.6			-31.2
Other current financial liabilities			-1.0		-15.0
Change in fair value to measure the ineffectiveness in the reporting period	-0.3	34.1	-1.3	141.6	22.4
Hedged items					
Change to measure the ineffectiveness	0.3	-34.2	1.3	-141.6	-22.4
Cash flow hedge reserve	1.6	19.5	-0.3	141.6	-1.4

The reconciliation of the cash flow hedge reserve including the non-controlling interests is shown in the following table.

Reconciliation of cash flow hedge reserve

€m	Risk	2021	2022
Balance as at 1 January		**5.7**	**17.8**
Changes in fair values	Currency risk	-0.3	-1.3
Changes in fair values	Interest risk		141.6
Changes in fair values	Electricity price risk	34.1	22.4
Gains or losses recognised in other comprehensive income		**33.8**	**162.7**
Reclassification to profit or loss (material costs)	Currency risk		-0.6
Reclassification to profit or loss (material costs)	Electricity price risk	-19.4	-43.3
Reclassification to cost of property, plant and equipment	Currency risk	-1.3	
Income taxes		-2.6	-26.9
Gains/losses arising from equity accounted investments		1.6	1.1
Balance as at 31 December		**17.8**	**110.8**

Fair value hedges

The interest rate swaps open at the reporting date hedge the interest rate risk of a fixed interest-bearing Eurobond with a value of €750.0 million that matures in 2027. The weighted average hedge rate of the outstanding interest rate swaps is the 6-month EURIBOR plus a margin of 1.06%. The interest rate swaps have similar terms to the hedged items as regards the benchmark interest rate, payment dates, terms, and notional amount. The changes in the value of the hedged items arising from the change in the EURIBOR are offset to the greatest extent possible by the change in the value of the swaps. The hedge ratio is 100%. Additionally, a Eurobond of €750.0 million hedged by interest rate swaps was repaid during the financial year.

The hedging instruments and hedged items designated as fair value hedges have the following impact on the balance sheet and income statement.

Fair value hedge – hedging interest risk

	2021	2022
Hedging instrument		
Balance sheet items and carrying amount		
Current derivative financial instruments (assets)	9.6	
Other non-current financial liabilities	-4.5	-82.6
Other current financial liabilities		-22.3
Change in fair value to measure the ineffectiveness in the reporting period	-28.9	-106.1
Hedged item		
Balance sheet items and carrying amount		
Bonds payable (liabilities)	-1,500.5	-644.6
thereof cumulated changes in fair value	28.5	102.5
Change in fair value to measure the ineffectiveness in the reporting period	28.5	105.9
Profit or loss item and value of ineffectiveness		
Other financial result	-0.4	-0.2

The ineffectiveness of the fair value hedges results essentially from the influence of the credit risk of the counterparty and the Group on the fair value of the interest rate swaps and on the change in the fair value of the bonds. The accrued interest of €3.9 million (previous year: 0.4) included in the fair value was recognised in profit or loss in the interest result.

The effectiveness of the cash flow hedges and fair value hedges is verified prospectively on the basis of the main contract features at inception and at every reporting date.

10.3 Risks from financial instruments

With regard to its assets, liabilities, firm commitments, and planned transactions, Heidelberg Materials is particularly exposed to risks arising from changes in exchange rates, interest rates, and market and stock market prices. These market price risks might have a negative impact on the assets, financial, and earnings position of the Group. The Group manages these risks primarily as part of its ongoing business and financing activities and, when required, by using derivative financial instruments. The main aspects of the financial policy are determined by the Managing Board and implemented by the Group Treasury department on the basis of existing guidelines.

Credit risk
Heidelberg Materials is exposed to credit risk through its operating activities and certain financial transactions. The credit risk stands for the risk that a contracting party unexpectedly does not fulfil, or only partially fulfils, the obligations agreed when signing a financial instruments contract. The Group limits its credit risk by essentially only concluding contracts for financial assets and derivative financial instruments with partners that meet our credit rating requirements (investment grade range).

Credit rating
The rating agencies Moody's and Standard & Poor's assess the Group's creditworthiness as Baa2/P-2 (stable outlook) and BBB/A-2 (stable outlook) as at the end of 2022. Any potential downgrading of the ratings awarded by the rating agencies could have a negative impact on the Group's cost of capital and refinancing options.

Cash and cash equivalents
This item essentially comprises cash and cash equivalents. The Group is exposed to losses arising from credit risk in connection with the investment of cash and cash equivalents if contracting parties do not fulfil their obligations. Heidelberg Materials manages the resulting risk position by diversification of contracting parties. Currently, no cash or cash equivalents are overdue or impaired as a result of actual defaults. The maximum credit risk of cash and cash equivalents corresponds to the carrying amount.

Trade receivables and contract assets
Trade receivables result mainly from the sale of cement, concrete, and aggregates. In operating activities, the outstanding debts are monitored on an ongoing basis. The maximum risk position from trade receivables corresponds to the carrying amount. The concentration of risk with regard to trade receivables and contract assets is classified as low because of Heidelberg Materials' global activity and the dispersion across a large number of customers.

To calculate the expected credit losses for trade receivables carried at amortised cost and contract assets, Heidelberg Materials uses the simplified approach of IFRS 9. This provides for a loss allowance at every reporting date in the amount of the expected credit losses over the term.

Initially, receivables are tested for impairment individually. The decision as to when an individual loss allowance is required is made at the individual company level, taking local conditions into account. If there are objective indications that a receivable is not or only partially realisable, an individual loss allowance is recorded, e.g. for customers in financial difficulties or if insolvency proceedings have been opened. Available external and internal information on the financial situation of customers, such as an assessment of creditworthiness or past experience with these customers, is used to assess the need for impairment. The impaired receivables are classified as "credit-impaired".

For receivables whose expected credit losses are not determined individually ("not credit-impaired"), the loss allowance is determined on the basis of the sector-specific default probability and country-specific default probabilities. The calculated default rate is then adjusted by a factor in order to reflect forward-looking macroeconomic information that could have an impact on customers' ability to settle the receivables. The expected real growth of the gross domestic product of the countries in which the customers are domiciled is used for this purpose. In addition, the expected credit loss is determined by taking into account the turnover period of the receivables of the respective individual companies, i.e. the average number of days from invoicing to receipt of payment.

In each country's domestic business, trade receivables may be secured by various types of collateral, such as guarantees, letters of credit, and other types of credit insurance. These securities are considered an integral part of the trade receivables and are taken into account when calculating impairment. The securities received as at 31 December 2022 amount to €358.6 million (previous year: 256.3).

The contract assets relate to performance obligations already fulfilled for which no unconditional right to payment exists as at the reporting date. The contract assets essentially have the same risk characteristics as the trade receivables. The expected default rates for trade receivables in each country are therefore regarded as a reasonable approximation of the default rates for the contract assets and used to calculate the expected credit losses.

Trade receivables by risk class

€m	Loss allowance in %	Gross carrying amount	Loss allowance	**Total**
31 December 2022				
Not credit-impaired	0.4%	1,640.0	-6.8	1,633.2
Credit-impaired	54.4%	197.9	-107.7	90.2
		1,837.9	**-114.5**	**1,723.4**
31 December 2021				
Not credit-impaired	0.3%	1,358.3	-3.6	1,354.6
Credit-impaired	50.5%	191.9	-97.0	94.9
		1,550.2	**-100.6**	**1,449.6**

Information about the credit risk position and the expected credit losses for the trade receivables accounted for at amortised cost is shown in the following table. The calculated loss allowance in % is derived from the ratio of all loss allowances posted per individual company to the gross carrying amount.

The loss allowances on trade receivables have developed as follows:

Loss allowances on trade receivables

€m	2021	**2022**
Balance as at 1 January	**103.9**	**100.6**
Addition	23.3	40.8
Reversal	-20.1	-12.7
Utilisation	-9.6	-12.6
Currency translation and other adjustments	3.0	-1.7
Balance as at 31 December	**100.6**	**114.5**

Other receivables and financial assets

This item essentially includes non-current receivables, interest-bearing receivables, and other operating receivables. The credit risk position from other receivables and financial assets corresponds to the carrying amount of these instruments. Heidelberg Materials regards this credit risk as insignificant.

Heidelberg Materials already takes into account the default risk when a financial asset is initially recognised by setting up loss allowances for expected credit losses. The general approach in accordance with IFRS 9 is used for the calculation of impairments. At every reporting date, an assessment is made as to whether the credit risk has increased significantly. If the credit risk has not increased significantly since initial recognition, the default probability is calculated on the basis of a 12-month period; otherwise, the total remaining term is used.

In order to assess whether the credit risk has increased significantly, the risk of a default on the financial asset at the reporting date is compared with the default risk at the time of initial recognition. A significant increase in credit risk is assumed if there is information about a deterioration in the debtor's financial situation or if agreed payments have been overdue for more than 30 days. In addition to the local conditions, which vary from country to country, and customers' payment behaviour, this assessment also takes into account credit ratings according to internal assessments of Heidelberg Materials or external rating agencies.

External and internal credit assessments taking into account both quantitative and qualitative information are used to calculate the expected credit losses. The internal classifications are then reconciled with the rating classes of external rating agencies and the resulting default probabilities. The default probability, which is then determined by considering probability-weighted scenarios, is adjusted to take into account the expected real growth of the gross domestic product of the country in which the debtor is domiciled. Both the financial situation and earnings position of the debtor and securities received are taken into consideration when calculating the risk provision to be set up.

If there are objective indications of impairment, individual loss allowances are made to the corresponding receivables in the amount that is likely to be no longer recoverable, taking into account any securities received. Objective indications are, inter alia, payment arrears of more than 90 days, information about significant financial difficulties of the debtor, non-compliance with a payment plan, or a high probability of insolvency proceedings against the debtor.

The securities available as at the reporting date amount to €128.6 million (previous year: 55.1) and mainly comprise liens and guarantees.

The following table explains the development of the loss allowances for the other financial receivables that are accounted for at amortised cost.

Other financial receivables – amortised cost

€m	Loans and other interest-bearing receivables	Other operating receivables	Total
Gross carrying amount as at 31 December 2022	**289.1**	**192.7**	**481.8**
Loss allowances as at 1 January 2022	-37.6	-6.5	-44.1
Changes	3.1	1.8	4.9
Currency translation	0.1	0.5	0.6
Loss allowances as at 31 December 2022	**-34.4**	**-4.2**	**-38.6**
Carrying amount as at 31 December 2022	**254.7**	**188.5**	**443.2**
Gross carrying amount as at 31 December 2021	**206.8**	**201.0**	**407.8**
Loss allowances as at 1 January 2021	-30.6	-6.6	-37.2
Changes	-6.6	0.4	-6.2
Currency translation	-0.4	-0.2	-0.6
Change in consolidation scope	0.0	0.0	0.0
Loss allowances as at 31 December 2021	**-37.6**	**-6.5**	**-44.0**
Carrying amount as at 31 December 2021	**169.3**	**194.5**	**363.8**

The credit risk position and expected credit losses for the other financial receivables accounted for at amortised cost can be broken down by risk class as follows.

Other financial receivables by risk class

€m	Loss allowance in %	Gross carrying amount	Loss allowance	**Total**
31 December 2022				
Low risk	0.0%	436.1	-0.2	435.9
Default event	84.1%	45.7	-38.4	7.3
		481.8	**-38.6**	**443.2**
31 December 2021				
Low risk	0.1%	355.2	-0.2	355.0
Default event	83.3%	52.6	-43.8	8.8
		407.8	**-44.0**	**363.8**

There was no allocation to the doubtful risk class as the credit risk for the above receivables has not increased significantly since initial recognition.

The cash and cash equivalents are also subject to the impairment requirements of IFRS 9. The identified impairment loss was immaterial.

Derivative financial instruments

Derivative financial instruments are generally used to reduce risks. In the course of its business activity, Heidelberg Materials is exposed to interest rate, currency, and energy price risks. For accounting purposes, a significant portion of the derivatives are not accounted for as hedges in accordance with IFRS 9, but as instruments in the held-for-trading category. However, from a commercial perspective, the changes in the fair values of these instruments represent an economically effective hedge within the context of the Group strategy. The maximum credit risk of this item corresponds to the fair value of the derivative financial instruments that have a positive fair value and are shown as financial assets at the reporting date. To reduce default risks, care is taken to ensure that, as far as possible, hedging transactions are concluded only with financial institutions with a good credit rating (investment grade). There are currently no past-due derivative financial instruments in the portfolio.

Liquidity risk

The liquidity risk describes the risk of a company not being able to fulfil its financial obligations to a sufficient degree. To manage Heidelberg Materials' liquidity, the Group maintains cash and cash equivalents as well as credit lines with banks, besides the cash inflow from operating activities. The operating liquidity management includes a daily reconciliation of cash and cash equivalents. The Group Treasury department acts as an in-house bank. This allows liquidity surpluses and requirements to be managed in accordance with the needs of the entire Group and of individual Group companies. In addition, factoring programmes are used to optimise working capital.

As at the end of the year, the Group still has as yet undrawn, confirmed credit lines of €2.4 billion available in order to secure liquidity, in addition to available cash and cash equivalents. HeidelbergCement AG has an open-ended framework agreement for the issue of short-term bearer bonds (commercial papers) of €2 billion to cover short-term liquidity peaks. Within the context of the programme, individual tranches with different terms will be issued at different times depending on the market situation. As at the end of 2022, none of the commercial papers issued by HeidelbergCement AG were outstanding.

As the financial contracts of Heidelberg Materials do not contain any clauses that trigger a repayment obligation in the event of the credit rating being downgraded, the maturity structure will remain unaffected even if the credit assessments change. Margin calls that could lead to an outflow of liquidity are not agreed in any of the main financial instruments. All derivative financial instruments are contracted on the basis of existing framework agreements that contain netting agreements for the purpose of reducing credit and liquidity risks.

The maturity overviews below show the future cash flows of financial liabilities and derivative financial instruments. Payments include the undiscounted repayments and interest payments for bonds payable, bank loans, and other financial liabilities. The cash flows of the lease liabilities are presented on a gross basis – i.e. before deducting financing costs. The undiscounted contractually agreed payments for derivative financial instruments as a total for the year did not take into account the inflow of liquidity amounting to €1,696.5 million (previous year: 1,517.1) from cross-currency interest rate swaps and €7,886.9 million (previous year: 8,444.6) arising from current foreign exchange transactions and other derivatives. The trade payables are assigned to short-term maturities (within a year). For variable interest payments, the current interest rate is taken as a basis. Payments in foreign currency are translated using the exchange rate at year end.

Cash flows of financial liabilities and derivative financial instruments

€m	**Carrying amount 31 Dec. 2022**	Cash flows 2023	Cash flows 2024	Cash flows 2025	Cash flows 2026	Cash flows ≥ 2027
Bonds payable	5,321.9	93.4	1,493.4	1,060.3	1,045.3	2,042.2
Bank loans	321.2	255.2	23.0	13.1	11.0	23.0
Lease liabilities	1,051.1	228.7	177.9	138.7	106.8	669.4
Miscellaneous other financial liabilities	92.0	65.8	23.0	10.0	2.6	2.3
Derivatives with positive fair value						
Cash flow hedges	52.6	11.0	2.3	3.4	2.3	10.3
Derivatives held for trading	71.0	2,909.5	58.3	57.8	58.0	854.6
Derivatives with negative fair value						
Cash flow hedges	47.2	18.0	14.4	8.6	8.2	36.9
Fair value hedges	104.9	26.6	26.8	26.6	26.6	26.6
Derivatives held for trading	84.2	5,102.9				

Cash flows of financial liabilities and derivative financial instruments

€m	Carrying amount 31 Dec. 2021	Cash flows 2022	Cash flows 2023	Cash flows 2024	Cash flows 2025	Cash flows ≥ 2026
Bonds payable	6,169.9	847.2	93.4	1,493.4	1,060.3	3,087.5
Bank loans	736.4	477.6	207.6	26.3	11.5	34.0
Lease liabilities	1,059.1	232.2	176.2	130.6	103.8	696.8
Miscellaneous other financial liabilities	91.2	49.8	28.9	9.8	10.5	5.1
Derivatives with positive fair value						
Cash flow hedges	20.1	16.0	2.4	2.4	2.4	9.4
Fair value hedges	9.6					
Derivatives held for trading	82.1	5,267.6				
Derivatives with negative fair value						
Cash flow hedges	0.8					3.5
Fair value hedges	4.5	4.0	4.0	4.0	4.0	8.0
Derivatives held for trading	84.5	3,211.8	672.4	17.0	16.8	783.8

Interest rate risk

Interest rate risks exist as a result of potential changes in the market interest rate and may lead to a change in fair value in the case of fixed interest-bearing financial instruments and to fluctuations in interest payments in the case of variable interest-bearing financial instruments. Interest rate risks are maintained within the parameters set by the Group's Chief Financial Officer. For financial instruments with fixed interest that are measured at amortised cost, interest rate risks have no impact on result and equity.

If the market interest rate level across all currencies had been 100 basis points higher or lower on 31 December 2022, the net interest cost of the Heidelberg Materials Group taking into account the variable interest-bearing assets and liabilities would have risen by €4.1 million (previous year: 2.0) or fallen by €2.9 million (previous year: 3.0).

Currency risk

Heidelberg Materials' currency risk results from its investing, financing, and operating activities. Risks from foreign currencies are generally hedged, insofar as they affect the Group's cash flow. Currency forwards and foreign exchange swaps are used in the elimination of existing currency risks.

Through the in-house banking activities of HeidelbergCement AG, the borrowing and investment of liquidity of the subsidiaries leads to currency positions that are generally hedged by means of external foreign exchange swap transactions, which are appropriate in terms of maturities and amounts. Consequently, currency fluctuations in connection with the in-house banking activities usually have no impact on result or equity. Unhedged items exist only in isolated cases, such as where currencies are not convertible.

The following table shows the hypothetical impact on the financial result assuming a 10% increase or decrease in the value of the foreign currency against the respective functional currency, whereby the positive values represent income and the negative values an expense in the income statement.

Sensitivity analysis of currency risk

	Increase in the value of the foreign currency by 10%		Decrease in the value of the foreign currency by 10%	
€m	31 Dec. 2021	**31 Dec. 2022**	31 Dec. 2021	**31 Dec. 2022**
USD/EGP		-15.9		15.9
USD/GHS		0.9		-0.9
USD/LRD	0.9	0.7	-0.9	-0.7
USD/TZS	3.0	3.5	-3.0	-3.5
EUR/XOF		-9.9		9.9

By contrast, foreign currency risks that do not affect the Group's cash flows (i.e. the risks resulting from the translation of the assets and liabilities of foreign subsidiaries into the Group reporting currency) generally remain unhedged.

11 Other disclosures

11.1 Capital management

The objective of capital management is to ensure sufficient liquidity for the Group at all times. Therefore, the Group makes use of external and internal financing opportunities. The net debt and the leverage ratio, which corresponds to the ratio of net debt to the result from current operations before depreciation and amortisation, are of fundamental importance to the monitoring of the Group's capital.

Leverage ratio

€m	31 Dec. 2021	**31 Dec. 2022**
Cash, derivative financial instruments, and short-term financial investments	3,226.9	1,577.7
Financial liabilities	8,226.3	7,109.9
Net debt	**4,999.4**	**5,532.2**
Result from current operations before depreciation and amortisation (RCOBD)	3,874.7	3,739.4
Leverage ratio	**1.29**	**1.48**

A loan agreement to be finally repaid on 4 January 2023 still contains a financial covenant regarding the leverage ratio. During the financial year, this financial covenant was complied with in accordance with the loan agreement.

11.2 Contingent liabilities

As at the reporting date, contingent liabilities amounted to €199.1 million (previous year: 176.8) and essentially concern risks related to taxes on income. The timing of the possible cash outflows for the contingent liabilities is uncertain because they depend on various external factors that remain outside Heidelberg Materials' control. The application of taxation regulations might not yet be determined at the time that tax refund claims and liabilities are calculated. The calculation of tax items is based on the regulations most likely to be applied in each case. Nevertheless, the fiscal authorities may be of a different opinion, which could give rise to additional tax liabilities.

11.3 Other financial commitments

As at the reporting date, there were contractual obligations for the acquisition of property, plant and equipment amounting to €418.7 million (previous year: 715.7), of which €127.2 million relates to the new kiln line in Airvault, France. Future cash outflows of €68.5 million (previous year: 56.3) result from leases that had been entered into as at the reporting date but have not yet commenced.

11.4 Related party disclosures

IAS 24 requires a statement concerning the most important relationships with related companies and persons that may exert a significant influence on HeidelbergCement AG; the former are accounted for as joint ventures or associates, the latter hold key positions as members of the management.

As at 31 December 2022, Mr. Ludwig Merckle, Ulm, holds via Spohn Cement Beteiligungen GmbH, Schönefeld, a company under his control, 27.67% of the voting rights in HeidelbergCement AG. In the 2022 financial year, HeidelbergCement AG provided services with a net amount of €235.0 thousand (previous year: 322.0) to PHOENIX Pharmahandel GmbH & Co KG, Mannheim, a related company of Mr. Ludwig Merckle. In addition, net expenses of €2.0 thousand (previous year: 113.2) for purchased services were incurred.

Revenue and other sales with joint ventures in the Heidelberg Materials Group amounted to €90.5 million (previous year: 62.0). Raw materials, goods, and other services with a value of €490.0 million (previous year: 349.0) were procured from these joint ventures. A total of €13.3 million (previous year: 10.3) was generated in financial and other services. Receivables of €100.5 million (previous year: 97.9) and liabilities of €44.9 million (previous year: 42.9) exist in connection with these activities and financial transactions. In addition, capital increases of €0.1 million (previous year: 1.0) were carried out for joint ventures. Repayment of capital from joint ventures to the parent company amounted to €1.5 million (previous year: 0). In the 2022 financial year, guarantees of €0.5 million (previous year: 0.2) were outstanding to joint ventures.

Business transactions with associates include revenue and other sales amounting to €113.1 million (previous year: 96.6), the procurement of goods and services amounting to €26.2 million (previous year: 20.7), and services provided amounting to €1.0 million (previous year: 1.1). Receivables of €38.0 million (previous year: 39.0) and liabilities of €9.7 million (previous year: 12.5) exist in connection with these activities and financial transactions. Capital increases and contributions in kind made to associates amounted to €19.6 million (previous year: 0.2). As at 31 December 2022, obligations from capital commitments amount to €44.3 million. Repayment of capital from associates to the parent company in the 2022 financial year amounted to

€2.8 million (previous year: 0). As in the previous year, there are no guarantees outstanding to associates in the 2022 financial year.

Receivables of €11.5 million (previous year: 8.7) and liabilities of €20.4 million (previous year: 16.3) existed in connection with transactions with non-consolidated subsidiaries. Guarantees of €1.4 million (previous year: 0.6) were outstanding to non-consolidated subsidiaries in the 2022 financial year. For an immaterial associate, there is a loss absorption guarantee of up to €1.5 million (previous year: 0).

Receivables of €11.1 million (previous year: 13.2) and liabilities of €6.0 million (previous year: 10.8) existed in connection with transactions with immaterial associates and joint ventures.

The stated transactions were carried out under conditions that would also apply to third parties.

11.5 Managing Board and Supervisory Board

The fixed remuneration of the Managing Board increased in comparison with the previous year due to the first full year of two functional Managing Board responsibilities created in 2021 to €7.4 million (previous year: 6.8). The sum of short-term variable remuneration elements amounted to €9.9 million (previous year: 10.5). In 2022, it consisted exclusively of the annual bonus in the amount of €9.9 million (previous year: 10.6), of which, in the previous year, €0.1 million was offset against other remuneration elements. The annual bonus is a variable remuneration element, which relates to the financial year. Two thirds of the overall target achievement for the annual bonus is measured by corporate targets (profit for the financial year attributable to the shareholders of HeidelbergCement AG and CO_2 component) and one third by individual targets. The achievement of the corporate targets results from the multiplication of the target achievement of the performance criterion profit for the financial year attributable to the shareholders of HeidelbergCement AG with the multiplier of the CO_2 component.

Other remuneration elements totalled €1.7 million (previous year: 4.7). In 2022, they consisted of a contribution of private pension benefits (cash allowance) and taxable fringe benefits. These included, in particular, bearing the costs of flights home, school fees, and company-related relocations, assignment-related benefits, the provision of company cars and driving services, mobile phones and communication tools, the reimbursement of expenses, as well as insurance benefits.

The members of the Managing Board are participating in the long-term bonus plan 2022–2024/25, granted in 2022. The target values for the plan, rounded to the nearest €'000, are €9,631,000.

The plan comprises two equally weighted components: the management component and the capital market component. The management component, with a term of three years, considers the internal added value as measured by earnings before interest and taxes (EBIT) and return on invested capital (ROIC), and is arranged in the form of a bonus with cash settlement. The capital market component, with a term of four years, considers the external added value as measured by total shareholder return (TSR) – adjusted for the reinvested dividend payments and for changes in capital – compared with the relevant capital market indices, using performance share units (PSUs). The PSUs are virtual shares used for the calculation of the capital market component. The target value, rounded to the nearest €'000, amounts to €4,813,000 for the management component and €4,818,000 for the capital market component. The different amounts result from the pro-rata calculation for the incoming and outgoing members of the Managing Board during the year. The reference price for the capital market component amounts to €62.56. This equates to 77,008 performance share units (PSUs) in total.

Pursuant to section 314(1)(6a) sentence 4 of the German Commercial Code (HGB), the fair value at the grant date must be indicated for the capital market component. For the members of the Managing Board, the amount, rounded to the nearest €'000, is in total €4,584,000.

The total remuneration pursuant to HGB amounted to €30.4 million (previous year: 30.4).

The retirement agreements of the members of the Managing Board appointed prior to 2019 contain the promise of an annual retirement pension, in the form of either an absolute amount or a percentage of the pensionable income. In 2019, a defined contribution pension commitment was introduced for the newly and reappointed members of the Managing Board. The design and expected pension benefits are based on the customary characteristics of such schemes, and existing contractual obligations are taken into account. In the financial year, allocations to provisions for pensions (service cost) for active members of the Managing Board amounted to €3.7 million (previous year: 4.2). The present values of the defined benefit obligation decreased with the change in the discount rate relevant to the provisions and the leave of Dr Näger to €20.6 million (previous year: 40.7).

Expenses relating to the long-term capital market components of the last four issued and outstanding long-term bonus plans in accordance with IFRS 2.51a amounted to €1,738,000 for the Members of the Managing Board (previous year: -1,316,000).

In accordance with IAS 24, recognized expenses relating to the long-term capital market components for the service as members of the Managing Board amounted to €1.7 million (previous year: -1.3). The expenses recognized relating to the long-term management components came to €–3.0 million (previous year: 12.7). Provisions for capital market components amounted to €2.1 million (previous year: 0.3), and for management components they amounted to €19.6 million (previous year: 22.4).

For the members of the Managing Board appointed as of 2016 and 2019, the existing contractual entitlements from long-term bonus and pension plans from prior positions within the Heidelberg Materials Group were continued. These entitlements are serviced according to the original plan conditions. The corresponding expenses in the financial year are included in the following table, in addition to the expenses for the service as member of the Managing Board.

Total remuneration of the Managing Board in accordance with IAS 24 came to €21.4 million in 2022 (previous year: 37.1) as represented in the following table.

Total remuneration of the Managing Board in accordance with IAS 24

€m	2021	**2022**
Short-term employee benefits (fixed remuneration, short-term variable remuneration elements, other remuneration elements)	18.5	19.0
Post-employment benefits (allocations to provisions for pensions – service cost including prior positions)	4.2	3.7
Redundancy payments for members of the Managing Board who stepped down in the reporting year	3.0	0,0
Other long-term benefits (expenses related to the LTIP management components including prior positions)	12.7	-3.0
Share-based payment (expenses related to the LTIP capital market components including prior positions)	-1.3	1.7
Total	**37.1**	**21.4**

Payments to former members of the Managing Board and their surviving dependents amounted to €5.4 million in the financial year (previous year: 8.7). Provisions for pension obligations to former members of the Managing Board amounted to €56.1 million (previous year: 78.7).

The total Supervisory Board remuneration (excluding value added tax), which is short-term only, for the 2022 financial year amounted to €1,738,000 (previous year: 1,813,000). Employee representatives of the Supervisory Board who are employees of the Heidelberg Materials Group also received remuneration in accordance with their contracts of employment, the level of which corresponded to an equitable remuneration for their relevant functions and tasks within the Group.

11.6 Declaration of compliance with the German Corporate Governance Code

The declaration of compliance with the German Corporate Governance Code as required by section 161 of the German Stock Corporation Act (Aktiengesetz, AktG) was submitted by the Managing Board and the Supervisory Board of HeidelbergCement AG and made available on the internet at **https://www.heidelbergmaterials.com/en/corporate-governance**.

11.7 Auditor's fees

The auditor PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft received fees of €4.5 million (previous year: 3.8) in the financial year.

Auditor's fees

€m	2021	**2022**
Audit services[1]	3.6	4.2
Other assurance services	0.2	0.3
Tax services	0.0	0.0
	3.8	**4.5**

1) Thereof for the previous year: 2022: €0.0 million, 2021: €0.1 million

The auditor's services mainly comprised services for the audit of the financial statements and, to a lesser extent, other assurance services. The fee for the other assurance services essentially includes the fee for the audit to obtain limited assurance on the non-financial statement and for the issuance of a comfort letter in connection with the €10 billion Euro Medium Term Note (EMTN) programme.

11.8 Events occurring after the close of the 2022 financial year

On 20 January 2023, Heidelberg Materials issued its first sustainability-linked bond (ISIN XS2577874782) with an issue volume of €750.0 million and a term ending in 2032 via HeidelbergCement AG under the €10 billion EMTN programme. The interest rate on the bond is linked to the development of the specific CO_2 emissions per tonne of cementitious material until 2026 and 2030, which are defined in the Sustainability-linked Financing Framework as key performance indicators (KPIs).

On 24 February 2023, as part of the portfolio optimisation programme, Heidelberg Materials signed a contract for the sale of its 45% participation in Caucasus-Cement Holding B.V., 's-Hertogenbosch, Netherlands ("CCH"). CCH is the parent company of HeidelbergCement Georgia Ltd. and Terjola Quarry Ltd., Tbilisi. The sale is expected to close in the first half of 2023. The transaction has no significant impact on the presentation of the assets, financial, and earnings position of the Group.

11.9 Approval by the Supervisory Board

The consolidated financial statements were prepared by the Managing Board and adopted on 22 March 2023. They were then submitted to the Supervisory Board for approval.

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Subsidiaries						
Western and Southern Europe						
A.R.C. (Western) Limited	Maidenhead, GB		100.00	2021	7.2	0.0
A1 Services (Manchester) Limited	Maidenhead, GB		100.00	2021	7.9	1.6
Amey Group Limited (The)	Maidenhead, GB		100.00	2021	15.2	0.0
Amey Roadstone International Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Appleby Group Limited	Maidenhead, GB		100.00	2021	32.0	0.0
ARC Aggregates Limited	Maidenhead, GB		100.00	2021	3.9	0.0
ARC Building Limited	Maidenhead, GB		100.00	2021	-21.4	0.0
ARC Concrete (Anglia) Limited	Maidenhead, GB		100.00	2021	0.0	0.0
ARC Concrete Limited	Maidenhead, GB		100.00	2021	0.0	0.0
ARC Holdings Limited	Maidenhead, GB		100.00	2021	0.1	0.0
ARC Land Holdings Limited	Maidenhead, GB		100.00	2021	0.3	0.0
ARC Limited	Maidenhead, GB		100.00	2021	0.0	0.0
ARC Property Investments Limited	Maidenhead, GB		100.00	2021	46.5	0.0
ARC Slimline Limited	Maidenhead, GB		100.00	2021	-3.8	0.0
ARC South Wales Limited	Maidenhead, GB		100.00	2021	0.0	0.0
ARC South Wales Mortar Limited	Maidenhead, GB		100.00	2021	0.0	0.0
ARC South Wales Quarries Limited	Maidenhead, GB		100.00	2021	0.0	0.0
ARC South Wales Surfacing Limited	Maidenhead, GB		100.00	2021	0.4	0.0
Attendflower Limited	Maidenhead, GB		100.00	2021	0.0	0.0
B.V. Betonmortelcentrale 'BEMA'	Alkmaar, NL		66.67	2021	-1.2	0.2
Banbury Alton Limited	Maidenhead, GB		100.00	2021	-0.3	0.0
Beazer Limited	Maidenhead, GB		100.00	2021	12.0	0.0
Beforebeam Limited	Maidenhead, GB		100.00	2021	475.4	0.0
Beforeblend Limited	Maidenhead, GB		100.00	2021	772.2	518.6
Berec Holdings B.V.	's-Hertogenbosch, NL		100.00	2021	59.1	-0.0
Béton Contrôle de l'Adour S.a.s.[5]	Bayonne, FR		35.99	2021	2.1	0.1
Béton Contrôle du Pays Basque S.a.s.	Bayonne, FR		59.98	2021	2.6	0.1
Betontir S.p.A.	Bergamo, IT		100.00	2021	0.9	-0.2
Birchwood Concrete Products Limited	Maidenhead, GB		100.00	2021	189.4	0.0
Birchwood Omnia Limited	Maidenhead, GB		100.00	2021	935.2	-229.0
BravoEnergy S.r.l.	Bergamo, IT		100.00	2021	0.1	-0.2
British Agricultural Services Limited	Maidenhead, GB		100.00	2021	432.7	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
British Ever Ready Limited	Maidenhead, GB		100.00	2021	31.7	0.0
Bulldog Company Limited	St. Peter Port, GG		100.00	2021	44.7	-0.0
C.T.G. S.R.L.	Bergamo, IT		100.00	2021	0.4	0.1
Calcestruzzi S.p.A.	Bergamo, IT		100.00	2021	16.6	-13.6
Calumite Limited	Maidenhead, GB		51.00	2021	3.0	1.0
Castle Building Products Limited	Maidenhead, GB		100.00	2021	-0.5	0.0
Castle Cement (Chatburn) Limited	Maidenhead, GB		100.00	2021	0.2	0.0
Castle Cement (Clyde) Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Castle Cement (Ketton) Limited	Maidenhead, GB		100.00	2021	26.8	0.0
Castle Cement (Padeswood) Limited	Maidenhead, GB		100.00	2021	7.1	0.0
Castle Cement (Pitstone) Limited	Maidenhead, GB		100.00	2021	11.6	0.0
Castle Cement (Ribblesdale) Limited	Maidenhead, GB		100.00	2021	27.9	0.0
Castle Cement Limited	Maidenhead, GB		100.00	2021	296.8	23.0
Castle Lime Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Castle Pension Scheme Trustees Limited	Maidenhead, GB		100.00	2021	0.0	0.0
CBR Baltic B.V.	's-Hertogenbosch, NL		100.00	2021	208.7	26.8
Cementrum I B.V.	's-Hertogenbosch, NL		100.00	2021	182.5	13.0
Cemitaly S.p.A.	Bergamo, IT		100.00	2021	12.4	-7.0
Centro Administrativo y de Servicios de Malaga S.A.	Málaga, ES		99.93	2021	-0.9	-0.0
Cetramaris S.a.s	Saint-Herblain, FR		70.00	2021	0.9	0.1
CGF Capital B.V.	's-Hertogenbosch, NL		100.00	2021	0.1	-0.0
Charterneed Limited	Maidenhead, GB		100.00	2021	0.0	0.0
CHB Group Limited	Maidenhead, GB		100.00	2021	798.5	0.0
CHB P H R Limited	Maidenhead, GB		100.00	2021	24.1	-1.4
CHB Products Limited	Maidenhead, GB		100.00	2021	2,376.7	0.0
Chemical Manufacture and Refining Limited	Maidenhead, GB		100.00	2021	6.5	0.0
Ciment du Littoral S.a.s.	Bassens, FR		100.00	2021	-6.3	-1.3
Ciments Calcia S.a.s.	Courbevoie, FR		100.00	2021	1,044.7	28.3
Ciminter S.A.	Strassen, LU		100.00	2021	59.9	11.3
City of London Heliport Limited	Maidenhead, GB		55.56	2021	-2.1	0.0
Civil and Marine (Holdings) Limited	Maidenhead, GB		100.00	2021	32.8	0.0
Civil and Marine Limited	Maidenhead, GB		100.00	2021	651.8	23.6
Civil and Marine Slag Cement Limited	Maidenhead, GB		100.00	2021	72.5	0.0
Claughton Manor Brick Limited (The)	Maidenhead, GB		100.00	2021	0.2	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Codesib S.a.s.	Guerville, FR		100.00	2021	33.0	14.6
Compagnie Financière et de Participations S.a.s.	Guerville, FR		100.00	2021	29.0	1.6
Compagnie pour l'Investissement Financier en Inde S.a.s.	Guerville, FR		100.00	2021	10.4	-0.4
Conbloc Limited	Maidenhead, GB		100.00	2021	-0.1	0.0
Concrete Italia S.r.l.	Brescia, IT		51.00	2021	-0.0	0.1
Creative Land Developers Limited[5]	Maidenhead, GB		50.00	2021	-0.4	0.0
Cromhall Quarries, Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Cumbrian Industrials Limited	Maidenhead, GB		100.00	2021	9.0	0.0
Delmorgal Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Desimpel Brick Limited	Maidenhead, GB		100.00	2021	3.1	0.0
Devon Concrete Works, Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Dragages du Pont de St Leger S.a.s.	St Léger, FR		60.00	2021	5.4	0.7
Dragages Transports & Travaux Maritimes S.a.s.	La Rochelle, FR		100.00	2021	21.4	3.0
DUPAMIJ Holding GmbH i.L.[4]	Kalkar, DE		100.00	2021	0.0	-0.0
E & S Retail Limited	Maidenhead, GB		100.00	2021	0.0	0.0
E Sub Limited	Maidenhead, GB		100.00	2021	7.2	0.0
Effectengage Limited	Maidenhead, GB		100.00	2021	315.1	0.0
Emerging Markets Industrial Corporation S.à r.l.[9]	Strassen, LU		100.00	-	-	-
ENCI B.V.	's-Hertogenbosch, NL		100.00	2021	89.4	13.8
ENCI Holding N.V.	's-Hertogenbosch, NL		100.00	2021	316.0	10.3
Ensign Park Limited[5]	Maidenhead, GB		50.00	2021	-1.9	0.0
Essroc Netherlands Coöperatief U.A.	's-Hertogenbosch, NL		100.00	2021	231.2	-0.0
Eurarco France S.A.	Le Crotoy, FR		64.98	2021	8.1	1.2
F.C. Precast Concrete Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Ferrersand Aggregates Limited	Maidenhead, GB		100.00	2021	1.7	0.0
Fruitbat Company	Maidenhead, GB		100.00	2021	0.0	0.0
Fulber Limited	St. Peter Port, GG		100.00	2021	129.8	-0.0
Granulats de la Drôme S.a.s.	Saint-Jean-de-Védas, FR		100.00	2021	3.8	0.9
Granulats de Lahontan	Guerville, FR		51.00	2021	2.2	0.0
Granulats Ouest – GO S.a.s.	Saint-Herblain, FR		100.00	2021	3.7	0.3
Greenwoods (St. Ives) Limited	Maidenhead, GB		100.00	2021	2.1	0.0
GSM S.a.s.	Courbevoie, FR		100.00	2021	190.4	26.5
Guidelink	Maidenhead, GB		100.00	2021	0.1	0.0
Habfield Limited	Maidenhead, GB		100.00	2021	0.0	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Hanson (BB) Limited	Maidenhead, GB		100.00	2021	0.6	0.0
Hanson (BBIN02) Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson (CGF) (No.1) Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson (CGF) (No2) Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson (CGF) Finance Limited	Maidenhead, GB		100.00	2021	160.6	0.0
Hanson (CGF) Holdings Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson (ER - No 10) Limited	Maidenhead, GB		100.00	2021	302.3	0.0
Hanson (ER - No 5) Limited	Maidenhead, GB		100.00	2021	472.1	0.0
Hanson (F) Limited	Maidenhead, GB		100.00	2021	5.9	0.0
Hanson (FH) Limited	Maidenhead, GB		100.00	2021	4.0	0.0
Hanson (FP) Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson (LBC) Limited	Maidenhead, GB		100.00	2021	26.1	0.0
Hanson (MR) Limited	Maidenhead, GB		100.00	2021	2,609.4	0.0
Hanson (NAIL) Limited	Maidenhead, GB		100.00	2021	6.4	0.0
Hanson (RBMC) Limited	Maidenhead, GB		100.00	2021	7.1	0.0
Hanson (SH) Limited	Maidenhead, GB		100.00	2021	69.0	0.0
Hanson Aggregates (North) Limited	Maidenhead, GB		100.00	2021	47.9	0.0
Hanson Aggregates Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson Aggregates Marine Limited	Maidenhead, GB		100.00	2021	164.3	5.1
Hanson Aggregates South Wales Holdings Limited	Maidenhead, GB		100.00	2021	8.1	0.0
Hanson Aggregates South Wales Limited	Maidenhead, GB		100.00	2021	46.1	0.0
Hanson Aggregates UK Limited	Maidenhead, GB		100.00	2021	2,375.0	-2.6
Hanson America Holdings (1) Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson America Holdings (2) Limited	Maidenhead, GB		100.00	2021	36.6	0.0
Hanson America Holdings (3) Limited	Maidenhead, GB		100.00	2021	0.0	329.8
Hanson America Holdings (4) Limited	Maidenhead, GB		100.00	2021	140.2	0.0
Hanson Aruba Limited	St. Peter Port, GG		100.00	2021	1,856.5	-0.0
Hanson Bath and Portland Stone Limited	Maidenhead, GB		100.00	2021	-2.6	0.0
Hanson Batteries Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson Blocks North Limited	Maidenhead, GB		100.00	2021	15.7	0.0
Hanson Brick Ltd	Maidenhead, GB		100.00	2021	0.2	0.0
Hanson Building Materials Europe Limited	Maidenhead, GB		100.00	2021	671.2	0.0
Hanson Building Materials Limited	Maidenhead, GB		100.00	2021	3,767.3	-4.9
Hanson Building Products (2003) Limited	Maidenhead, GB		100.00	2021	224.9	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Hanson Building Products Limited	St. Helier, JE		100.00	2021	0.1	0.0
Hanson Canada Limited	Maidenhead, GB		100.00	2021	1.1	-0.0
Hanson Clay Products Limited	Maidenhead, GB		100.00	2021	18.0	0.0
Hanson Concrete Products Limited	Maidenhead, GB		100.00	2021	62.4	0.0
Hanson Crewing Services Limited	Maidenhead, GB		100.00	2021	-0.0	0.0
Hanson Devon Designated Activity Company	Shannon, IE		100.00	2021	4,561.5	-0.1
Hanson Facing Bricks Limited	Maidenhead, GB		100.00	2021	294.8	0.0
Hanson Finance (2003) Limited	Maidenhead, GB		100.00	2021	520.4	-11.5
Hanson Finance Limited	Maidenhead, GB		100.00	2021	720.1	-0.0
Hanson Financial Services Limited	Maidenhead, GB		100.00	2021	238.9	0.0
Hanson FP Holdings B.V.	's-Hertogenbosch, NL		100.00	2021	406.8	-0.0
Hanson Funding (G) Limited	Maidenhead, GB		100.00	2021	206.5	0.0
Hanson H4 Limited	Maidenhead, GB		100.00	2021	10.4	0.0
Hanson H5	Maidenhead, GB		100.00	2021	0.1	0.0
Hanson Hedging (Dollars) (1) Limited	Maidenhead, GB		100.00	2021	0.3	0.0
Hanson Hispania Hormigones SL	Málaga, ES		99.99	2021	1.8	2.2
Hanson Hispania, S.A.U.	Madrid, ES		100.00	2021	75.2	7.9
Hanson Holdings (1) Limited	Maidenhead, GB		100.00	2021	5,967.2	0.0
Hanson Holdings (2) Limited	Maidenhead, GB		100.00	2021	1,227.2	0.0
Hanson Holdings (3) Limited	Maidenhead, GB		100.00	2021	808.3	-35.3
Hanson Holdings Limited	Maidenhead, GB		100.00	2021	4,107.0	0.0
Hanson Industrial (Engineering Holdings) Limited	Maidenhead, GB		100.00	2021	6.4	0.0
Hanson Industrial Limited	Maidenhead, GB		100.00	2021	189.3	0.0
Hanson International Holdings Limited	Maidenhead, GB		100.00	2021	2,795.0	-10.2
Hanson Island Management Limited	St. Peter Port, GG		100.00	2021	-1.1	-0.1
Hanson Land Development Limited	Maidenhead, GB		100.00	2021	-35.1	0.0
Hanson Limited	Maidenhead, GB		100.00	2021	12,395.9	-5.9
Hanson Marine Holdings Limited	Maidenhead, GB		100.00	2021	1.5	0.0
Hanson Marine Limited	Maidenhead, GB		100.00	2021	38.6	1.2
Hanson Overseas Corporation Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson Overseas Holdings Limited	Maidenhead, GB		100.00	2021	5,244.8	-172.6
Hanson Packed Products Limited	Maidenhead, GB		100.00	2021	312.5	6.3
Hanson Peabody Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson Pioneer España, S.L.U.	Madrid, ES		100.00	2021	356.8	18.7

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Hanson Quarry Products Europe Limited	Maidenhead, GB		100.00	2021	1,960.1	140.9
Hanson Quarry Products Holdings Limited	Maidenhead, GB		100.00	2021	49.9	0.0
Hanson Quarry Products Trade Finance Limited	Maidenhead, GB		100.00	2021	3.5	0.0
Hanson Quarry Products Transport Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Hanson Quarry Products Ventures Limited	Maidenhead, GB		100.00	2021	56.5	-0.2
Hanson Retail Limited	Maidenhead, GB		100.00	2021	465.2	0.0
Hanson Ship Management Ltd	St. Peter Port, GG		100.00	2021	-1.0	-0.2
Hanson Thermalite Limited	Maidenhead, GB		100.00	2021	49.5	0.0
Hanson TIS Holdings Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hanson TIS Limited	Maidenhead, GB		100.00	2021	-3.0	0.0
Hanson Trust Limited	Maidenhead, GB		100.00	2021	115.7	0.0
Hanson Trustees Limited	Maidenhead, GB		100.00	2021	-1.7	0.0
Harrisons Limeworks Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Hartsholme Property Limited	Maidenhead, GB		100.00	2021	0.1	0.0
HB Hotels Limited	Maidenhead, GB		100.00	2021	-0.7	0.0
HC Asia Holding GmbH	Heidelberg, DE	100.00	100.00	2021	84.4	0.4
HC Fuels Limited	Maidenhead, GB		100.00	2021	10.8	0.0
HC Green Trading Limited	Żebbuġ, MT		100.00	2021	0.0	1.6
HC Hanson Holding B.V.	's-Hertogenbosch, NL		100.00	2021	424.9	49.0
HC Trading B.V.	's-Hertogenbosch, NL		100.00	2021	0.0	2.9
HC Trading GmbH[7]	Heidelberg, DE		100.00	2021	7.3	0.0
HC Trading Malta Limited	Żebbuġ, MT		100.00	2021	0.0	12.6
HCT Holding Malta Limited	Żebbuġ, MT	100.00	100.00	2021	60.2	20.7
HDigital GmbH[7]	Heidelberg, DE		100.00	2021	0.0	0.0
Heidelberg Materials UK Limited	Maidenhead, GB	100.00	100.00	2021	2.3	0.0
HeidelbergCement BP Limited	Maidenhead, GB		100.00	2021	0.1	0.0
HeidelbergCement Canada Holding Limited	Maidenhead, GB		100.00	2021	3,207.1	83.6
HeidelbergCement Central Europe East Holding B.V.	's-Hertogenbosch, NL		100.00	2021	1,203.5	4.0
HeidelbergCement Euro I Limited	Maidenhead, GB		100.00	2021	0.0	0.0
HeidelbergCement Euro II Limited	Maidenhead, GB		100.00	2021	3,287.1	35.6
HeidelbergCement Euro III Limited	Maidenhead, GB		100.00	2021	874.6	6.6
HeidelbergCement Finance Luxembourg S.A.	Strassen, LU		100.00	2021	33.2	42.5
HeidelbergCement France S.A.S.	Courbevoie, FR		100.00	2021	2,439.9	-34.5
HeidelbergCement Grundstücksgesellschaft mbH & Co. KG[7]	Heidelberg, DE	100.00	100.00	2021	4.9	1.3

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1)]	Equity in € million[2)]	Net income in € million[3)]
HeidelbergCement Holding Coöperatief U.A.	's-Hertogenbosch, NL		100.00	2021	1,127.9	-0.0
HeidelbergCement Holding GmbH	Heidelberg, DE		100.00	2021	0.0	-0.0
HeidelbergCement Holding S.à r.l.	Strassen, LU		100.00	2021	24,128.7	613.8
HeidelbergCement International Holding GmbH	Heidelberg, DE	100.00	100.00	2021	20,635.7	0.0
HeidelbergCement Logistik GmbH[7)]	Polch, DE		100.00	2021	5.3	0.0
HeidelbergCement Mediterranean Basin Holdings S.L.U.	Madrid, ES		100.00	2021	58.7	2.2
HeidelbergCement Netherlands Holding B.V.	's-Hertogenbosch, NL	14.54	100.00	2021	811.9	0.4
HeidelbergCement Reinsurance Luxembourg S.A.	Strassen, LU		100.00	2021	19.0	15.1
HeidelbergCement UK Holding II Limited	Maidenhead, GB		100.00	2021	17,720.9	-34.5
HeidelbergCement UK Holding Limited	Maidenhead, GB		100.00	2021	11,893.0	-126.0
HeidelbergCement UK Limited	Maidenhead, GB		100.00	2021	95.2	0.0
HeidelbergCement, Funk & Kapphan Grundstücksgesellschaft GmbH & Co. KG[7)]	Heidelberg, DE	79.91	79.91	2021	11.7	0.2
Heidelberger Beton Donau-Naab GmbH & Co. KG[7)]	Burglengenfeld, DE		77.70	2021	3.6	2.2
Heidelberger Beton GmbH[7)]	Heidelberg, DE	100.00	100.00	2021	579.8	128.5
Heidelberger Betonelemente GmbH & Co. KG[7)]	Chemnitz, DE		83.00	2021	10.6	3.1
Heidelberger Sand und Kies GmbH[7)]	Heidelberg, DE	6.00	100.00	2021	108.8	0.0
HIPS (Trustees) Limited	Maidenhead, GB		100.00	2021	0.0	0.0
HK Holdings (No.1) Limited	Maidenhead, GB		100.00	2021	50.2	0.0
HK Holdings (No.2) Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Holms Sand & Gravel Company (1985) (The)	Maidenhead, GB		100.00	2021	0.0	0.0
Holms Sand & Gravel Company Limited (The)	Maidenhead, GB		100.00	2021	0.0	0.0
Homes (East Anglia) Limited	Maidenhead, GB		100.00	2021	0.2	0.0
Hormigones y Minas S.A.	Málaga, ES		99.94	2021	25.0	1.3
Housemotor Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Houseprice Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Houserate Limited	Maidenhead, GB		100.00	2021	8,526.1	-468.0
HPL Albany House Developments Limited[5)]	Maidenhead, GB		50.00	2021	-0.6	0.0
HPL Estates Limited	Maidenhead, GB		100.00	2021	4.2	0.0
HPL Investments Limited	Maidenhead, GB		100.00	2021	0.0	0.0
HPL Properties Limited	Maidenhead, GB		100.00	2021	47.2	0.0
HPL Property Limited	Maidenhead, GB		100.00	2021	47.6	0.0
HPL West London Developments Limited[5)]	Maidenhead, GB		50.00	2021	-0.2	0.0
Hurst and Sandler Limited	Maidenhead, GB		100.00	2021	5.6	0.0
Immobilière des Technodes S.a.s.	Guerville, FR		100.00	2021	13.3	0.9

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Imperial Foods Holdings Limited	Maidenhead, GB		100.00	2021	0.7	0.0
Imperial Group Limited	Maidenhead, GB		100.00	2021	293.0	0.0
Imperial Seafoods Limited	Maidenhead, GB		100.00	2021	1.4	0.0
Ing. Sala S.p.A.	Bergamo, IT		100.00	2021	0.5	-0.5
Interbulk Trading (IBT) S.A.	Lugano, CH		100.00	2021	55.4	0.9
Intercom S.r.l.	Bergamo, IT		100.00	2021	7.0	0.0
Investcim S.a.s.	Guerville, FR		100.00	2021	112.0	-0.0
Irvine - Whitlock Limited	Maidenhead, GB		100.00	2021	-24.0	-4.1
Ital Real Estate S.r.l.	Bergamo, IT		100.00	2021	46.6	8.7
Italcementi Finance S.A.	Guerville, FR		100.00	2021	26.7	2.4
Italcementi S.p.A.	Bergamo, IT		100.00	2021	3,152.9	456.2
Italsacci S.p.A.	Bergamo, IT		100.00	2021	120.8	1.9
James Grant & Company (West) Limited	Edinburgh, GB		100.00	2021	2.6	0.0
Judkins Limited	Maidenhead, GB		100.00	2021	0.1	0.0
K.M. Property Development Company Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Kazakhstan Cement Holding B.V.	's-Hertogenbosch, NL		100.00	2021	85.1	-0.0
Ketton Cement Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Kingston Minerals Limited	Maidenhead, GB		100.00	2021	0.2	0.0
L.B. (Stewartby) Limited	Maidenhead, GB		100.00	2021	62.3	0.0
Lehigh B.V.	's-Hertogenbosch, NL		100.00	2021	12,402.7	213.3
Lehigh UK Limited	Maidenhead, GB		100.00	2021	15,812.1	2.9
Les Sabliers de l'Odet S.a.s.	La Rochelle, FR		100.00	2021	4.4	-0.0
Lindustries Limited	Edinburgh, GB		100.00	2021	52.9	0.0
Lithonplus GmbH & Co. KG[7]	Lingenfeld, DE		60.00	2021	70.5	16.9
Localdouble Limited	Maidenhead, GB		100.00	2021	0.0	0.0
M E Sub Limited	Maidenhead, GB		100.00	2021	20.9	0.0
Manchester Waste Recycling Limited	Maidenhead, GB		100.00	2021	6.4	0.1
Mantle & Llay Limited	Maidenhead, GB		100.00	2021	-0.0	0.0
Marnee Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Marples Ridgway Limited	Maidenhead, GB		100.00	2021	-4.7	0.0
Mebin B.V.	's-Hertogenbosch, NL		100.00	2021	63.0	-5.0
Mebin Leeuwarden B.V.	Leeuwarden, NL		79.79	2021	0.1	-0.3
Menaf S.a.s.	Guerville, FR		100.00	2021	-1.9	-2.4
Meppeler Betoncentrale B.V.	Meppel, NL		66.67	2021	-0.6	-0.3

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Mibau Deutschland GmbH	Cadenberge, DE		60.00	2021	1.4	0.0
Mibau Holding GmbH	Cadenberge, DE		60.00	2021	73.5	31.1
Mibau Nederland B.V.	Venlo, NL		60.00	2021	1.9	0.5
Midland Quarry Products Limited	Maidenhead, GB		100.00	2021	108.3	17.4
Milton Hall (Southend) Brick Company Limited (The)	Maidenhead, GB		100.00	2021	1.6	0.0
Minster Quarries Limited	Maidenhead, GB		100.00	2021	-1.5	0.0
Mixconcrete Holdings Limited	Maidenhead, GB		100.00	2021	4.6	0.0
Mixconcrete Limited	Maidenhead, GB		100.00	2021	-2.1	0.0
Morebeat Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Motioneager Limited	Maidenhead, GB		100.00	2021	0.0	0.0
National Brick Company Limited	Maidenhead, GB		100.00	2021	3.0	0.0
National Star Brick and Tile Holdings Limited	Maidenhead, GB		100.00	2021	2.5	0.0
National Star Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Nuova Sacelit S.r.l.	Bergamo, IT		100.00	2021	1.7	-0.9
Paperbefore Limited	Maidenhead, GB		100.00	2021	1,064.5	691.5
Pencrete Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Picon Overseas Limited	St. Peter Port, GG		100.00	2021	209.5	21.0
PILC Limited	St. Peter Port, GG		100.00	2021	22.5	0.0
Pimco 2945 Limited	Maidenhead, GB		100.00	2021	4.8	0.0
Pinden Plant & Processing Co. Limited (The)	Maidenhead, GB		100.00	2021	6.7	0.0
Pioneer Aggregates (UK) Limited	Maidenhead, GB		100.00	2021	5.4	0.0
Pioneer Asphalts (U.K.) Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Pioneer Concrete (U.K.) Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Pioneer Concrete Holdings Limited	Maidenhead, GB		100.00	2021	138.4	0.0
Pioneer International Group Holdings Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Pioneer Investments UK Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Pioneer Overseas Investments Limited	St. Peter Port, GG		100.00	2021	126.1	-0.0
Premix Concrete Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Purfleet Aggregates Limited	Maidenhead, GB		100.00	2021	-0.2	-0.0
Redshow Limited	Maidenhead, GB		100.00	2021	130.7	0.0
Rezincote (1995) Limited	Maidenhead, GB		100.00	2021	-0.5	0.0
Roads Reconstruction Limited	Maidenhead, GB		100.00	2021	10.2	0.0
Rostocker Zementumschlagsgesellschaft mbH	Rostock, DE		60.00	2021	0.1	0.0
Rouennaise de Transformation S.a.s.	Grand-Couronne, FR		100.00	2021	1.1	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
S Sub Limited	Maidenhead, GB		100.00	2021	0.0	0.0
S Z G - Saarländische Zementgesellschaft mit beschränkter Haftung[4]	Saarbrücken, DE		100.00	2021	1.4	0.2
S.A. Cimenteries CBR	Braine-l'Alleud, BE	0.00	100.00	2021	1,065.5	66.2
Sabine Limited	St. Peter Port, GG		100.00	2021	129.8	-0.0
Sablimaris S.a.s.	Saint-Herblain, FR		100.00	2021	14.9	1.8
Sagrex B.V.	's-Hertogenbosch, NL		100.00	2021	7.3	0.1
Sagrex France S.A.S.	Thourotte, FR		100.00	2021	7.8	1.7
Sagrex Holding B.V.	's-Hertogenbosch, NL		100.00	2021	28.0	0.5
Sagrex Productie B.V.	's-Hertogenbosch, NL		100.00	2021	6.8	0.4
Sailtown Limited	Maidenhead, GB		100.00	2021	1,099.8	18.4
Saint Hubert Investments S.à r.l.	Strassen, LU		100.00	2021	428.5	-0.0
SAMA S.r.l. - in liquidazione[4]	Bergamo, IT		100.00	2021	-0.2	-0.0
Samuel Wilkinson & Sons Limited	Maidenhead, GB		100.00	2021	-0.0	0.0
Sax S.a.s.	Guerville, FR		100.00	2021	2.4	0.7
Scancem Energy and Recovery Limited	Maidenhead, GB		100.00	2021	20.2	0.0
Scancem International Limited	Maidenhead, GB		100.00	2021	21.2	0.0
Scancem Recovery Limited	Maidenhead, GB		100.00	2021	20.7	0.0
Scancem Supply Limited	Maidenhead, GB		100.00	2021	-2.2	0.0
Seagoe Concrete Products Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Second City Properties Limited	Maidenhead, GB		100.00	2021	13.7	0.0
Shapedirect Limited	Maidenhead, GB		100.00	2021	2,058.2	14.4
SJP 1 Limited	Maidenhead, GB		100.00	2021	-0.1	0.0
Slotcount Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Small Lots (Mix-It) Limited	Maidenhead, GB		100.00	2021	12.8	0.0
Sociedad Financiera y Minera, S.A.	Málaga, ES		99.94	2021	416.7	150.7
Socli S.a.s.	Izaourt, FR		100.00	2021	11.0	1.9
Sodramaris S.N.C.	Saint-Herblain, FR		100.00	2021	14.2	0.1
Solrec Limited	Maidenhead, GB		100.00	2021	9.9	0.0
SQ Corporation Limited	Maidenhead, GB		100.00	2021	0.0	0.0
SQ Finance No 2 Limited	Maidenhead, GB		100.00	2021	49.3	-2.4
St Edouard S.à r.l.	Strassen, LU		100.00	2021	2,890.8	-0.0
ST JUDE S.à r.l.	Strassen, LU		100.00	2021	2,376.6	-0.1
ST NICOLAS S.à r.l.	Strassen, LU		100.00	2021	1,327.2	-240.0
Stema Shipping (UK) Limited	Grays, GB		60.00	2021	8.2	4.7

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Stema Shipping France S.a.s.	Le Mesnil Esnard, FR		60.00	2021	0.3	-0.2
Stephen Toulson & Sons Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Stewartby Housing Association Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Supamix Limited	Maidenhead, GB		100.00	2021	6.7	0.0
Technodes S.a.s.	Guerville, FR		100.00	2021	-12.2	-1.1
Tercim S.a.s.	Guerville, FR		100.00	2021	3.8	-0.7
The Purfleet Ship to Shore Conveyor Company Limited	Maidenhead, GB		100.00	2021	0.1	0.0
Thistleton Quarries Limited	Maidenhead, GB		100.00	2021	-1.7	0.0
Tillotson Commercial Motors Limited	Maidenhead, GB		100.00	2021	-22.2	0.0
Tillotson Commercial Vehicles Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Tilmanstone Brick Limited	Maidenhead, GB		100.00	2021	8.4	0.0
Timesound	Maidenhead, GB		100.00	2021	0.7	0.0
TLQ Limited	Edinburgh, GB		100.00	2021	0.0	0.0
TMC Pioneer Aggregates Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Tratel Affrètement S.a.s.	Courbevoie, FR		100.00	2021	17.9	1.8
Tratel S.a.s.	Courbevoie, FR		100.00	2021	24.7	1.7
Tunnel Cement Limited	Maidenhead, GB		100.00	2021	0.0	0.0
U.D.S. Holdings B.V.	's-Hertogenbosch, NL		100.00	2021	47.4	-0.0
UDS (No 10)	Maidenhead, GB		100.00	2021	2,159.7	149.6
UDS (No 3) Limited	Maidenhead, GB		100.00	2021	6.7	0.0
UDS Corporation Limited	Maidenhead, GB		100.00	2021	0.0	0.0
UDS Finance Limited	Maidenhead, GB		100.00	2021	48.5	0.0
UDS Group Limited	Maidenhead, GB		100.00	2021	135.5	0.0
UDS Holdings (1) Limited	Maidenhead, GB		100.00	2021	241.4	0.0
UGI Group Limited	Maidenhead, GB		100.00	2021	114.5	0.0
Unibéton Centre Ouest S.a.s.	Saint Jean le Blanc, FR		100.00	2021	7.6	0.7
Unibéton S.a.s.	Courbevoie, FR		100.00	2021	50.5	-19.3
United Gas Industries Limited	Maidenhead, GB		100.00	2021	13.8	0.0
Uniwerbéton S.a.s.	Heillecourt, FR		70.00	2021	0.4	0.0
V.E.A. Limited	St. Peter Port, GG		100.00	2021	191.0	0.3
Ventore S.L.	Málaga, ES		99.94	2021	-0.1	0.1
Viewgrove Investments Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Visionfocus Limited	Maidenhead, GB		100.00	2021	789.1	0.0
Visionrefine Limited	Maidenhead, GB		100.00	2021	-0.4	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Volt RMC Solutions GmbH[7] [9]	Heidelberg, DE		100.00	-	-	-
Welbecson Group Limited	Maidenhead, GB		100.00	2021	-0.1	0.0
Wineholm Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Subsidiaries						
Northern and Eastern Europe-Central Asia						
Abetong AB	Växjö, SE		100.00	2021	6.7	0.1
Abetong AS	Oslo, NO		100.00	2021	0.6	-0.0
AS Kunda Nordic Tsement	Kunda, EE		75.00	2021	40.6	-2.7
Betong Sør AS	Kristiansand, NO		100.00	2021	2.5	0.7
Betongindustri AB	Stockholm, SE		100.00	2021	4.4	0.2
BETOTECH, s.r.o.	Beroun, CZ		91.50	2021	0.9	0.2
Björgun ehf	Reykjavík, IS		52.98	2021	6.1	-1.8
BM Valla ehf	Reykjavík, IS		52.98	2021	23.6	4.3
Bukhtarma Cement Company LLP	Oktyabrskiy village, KZ		100.00	2021	30.1	6.8
Calumite s.r.o.	Ostrava-Kunčičky, CZ		51.00	2021	4.1	0.4
CaspiCement Limited Liability Partnership	Shetpe, KZ		100.00	2021	55.1	4.1
Caspinerud Limited Liability Partnership	Shetpe, KZ		100.00	2021	7.9	-0.2
Cementa AB	Stockholm, SE		100.00	2021	48.3	0.5
Cementa Fastighets AB	Stockholm, SE		100.00	2021	0.1	0.0
Českomoravský beton, a.s.	Beroun, CZ		100.00	2021	27.5	4.1
Českomoravský cement, a.s.	Mokrá-Horákov, CZ		100.00	2021	117.0	56.8
Českomoravský štěrk, a.s.	Mokrá-Horákov, CZ		100.00	2021	66.4	16.2
Contiga A/S	Tinglev, DK		100.00	2021	6.7	1.3
Contiga AB	Norrtälje, SE		100.00	2021	1.0	0.1
Contiga AS	Moss, NO		100.00	2021	48.2	-0.2
Contiga Holding AS	Oslo, NO		100.00	2021	67.8	6.1
Devnya Cement AD	Devnya, BG		99.94	2021	173.8	58.0
DK Beton A/S	Ringsted, DK		100.00	2021	36.2	4.7
DK Cement A/S	Ringsted, DK		100.00	2021	9.9	0.2
DOBET, spol. s r.o.[8]	Ostrožská Nová Ves, CZ		100.00	-	-	-
Eignarhaldsfélagið Hornsteinn ehf.	Reykjavík, IS		52.98	2021	36.1	3.8
Fastighets AB Limhamns Kalkbrott	Stockholm, SE		100.00	2021	2.2	0.0
Fastighets AB Lövholmen	Stockholm, SE		100.00	2021	0.5	0.0
Garkalnes Grants SIA	Riga, LV		100.00	2021	8.9	0.5

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Global IT Center EAD	Devnya, BG		99.94	2021	1.1	0.1
Górażdże Beton Sp. z o.o.	Chorula, PL		100.00	2021	18.9	-6.1
Górażdże Cement S.A.	Chorula, PL		100.00	2021	544.6	88.6
Górażdże Kruszywa Sp. z o.o.	Chorula, PL		100.00	2021	47.3	2.8
Halyps Building Materials S.A.	Aspropyrgos, GR		99.90	2021	79.0	4.8
Hanson Iceland EHF	Reykjavík, IS		100.00	2021	2,376.0	-0.0
HC Betons SIA	Riga, LV		100.00	2021	1.1	-1.1
HC Betoon AS, Estonia	Tallinn, EE		100.00	2021	6.1	0.5
HC SSC Latvia, SIA	Riga, LV		100.00	2021	0.0	-0.0
Heidelberg Materials Denmark A/S	Ringsted, DK		100.00	2021	47.4	4.9
Heidelberg Materials Iceland ehf.	Reykjavík, IS		100.00	2021	22.2	2.0
Heidelberg Materials Northern Europe AB	Stockholm, SE		100.00	2021	1,367.9	131.1
Heidelberg Materials Norway AS	Oslo, NO		100.00	2021	725.0	159.5
Heidelberg Materials Sweden AB	Stockholm, SE		100.00	2021	235.6	14.3
HeidelbergCement Africa Holding Kommanditbolag	Stockholm, SE		100.00	2021	23.3	0.0
HeidelbergCement Miljö AB	Örebro, SE		100.00	2021	1.8	0.0
HeidelbergCement Pozzolanic Materials (HPM) ehf.[8]	Reykjavík, IS		100.00	-	-	-
HeidelbergCement România S.A.	Bucharest, RO		100.00	2021	240.2	43.5
HeidelbergCement Services - LLP	Almaty, KZ		100.00	2021	-0.9	0.0
Italmed Cement Company Ltd.	Limassol, CY		99.90	2021	24.6	2.7
Kamenivo Slovakia a.s.	Bratislava, SK		100.00	2021	1.7	-0.2
LLC "Norcem Kola"	Murmansk, RU		100.00	2021	0.2	-0.0
LLC 'HeidelbergCement Rus'	Podolsk, RU		100.00	2021	161.4	34.2
LLC KaliningradCement	Kaliningrad, RU		100.00	2021	1.2	-0.1
Lyulyaka Materials EAD	Devnya, BG		99.94	2021	1.3	0.1
Magnatool AB	Stockholm, SE		75.00	2021	0.0	0.0
Mibau Polska Sp. z o.o.	Gdansk, PL		60.00	2021	1.8	0.2
Norbetong AS	Oslo, NO		100.00	2021	102.4	10.5
Norcem AS	Oslo, NO		100.00	2021	46.9	15.3
Nordic Precast Group AB	Stockholm, SE		100.00	2021	134.8	0.9
Nordic Precast Kasen Fastighets AB	Uddevalla, SE		100.00	2021	1.9	0.9
Norsk Stein AS	Jelsa, NO		60.00	2021	92.7	3.8
NorStone AS	Sandnes, NO		100.00	2021	4.3	0.5
OJSC "Cesla"	Slantsy, RU		99.98	2021	6.0	-1.6

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
OJSC Gurovo-Beton	Novogurovsky, RU		100.00	2021	3.1	1.1
Precon Polska Sp.z.o.o.	Warszawa, PL		100.00	2021	5.1	0.3
Protenna AB	Stockholm, SE		75.00	2021	25.3	0.0
Renor AS	Aurskog, NO		100.00	2021	4.7	0.4
Sand- och grusaktiebolaget Jehander	Stockholm, SE		100.00	2021	10.7	-0.0
Scancem Central Africa Holding 1 AB	Stockholm, SE		100.00	2021	5.2	-12.5
Scancem Central Africa Holding 2 AB	Stockholm, SE		100.00	2021	0.2	-12.5
Scancem Central Africa Holding 3 AB	Stockholm, SE		100.00	2021	0.3	-12.5
Scancem Central Africa Holding 4 AB	Stockholm, SE		100.00	2021	0.1	-12.5
Scancem Holding AS	Oslo, NO		100.00	2021	20.8	1.4
Scancem International DA	Oslo, NO		100.00	2021	97.2	105.2
Sementsverksmidjan ehf	Akranes, IS		52.98	2021	6.2	1.3
ShymkentCement LLP	Shymkent, KZ		100.00	2021	29.2	14.1
SIA BALTIC SAULE	Riga, LV		100.00	2021	2.4	-0.1
SIA SBC	Marupe, LV		100.00	2021	1.8	-0.6
SIA SBC Finance	Marupe, LV		100.00	2021	0.1	-0.0
SIA SBC Property[5]	Marupe, LV		49.00	2021	3.9	0.2
Sola Betong AS	Tananger, NO		66.67	2021	1.0	0.5
Splitt Chartering Aps	Aabenraa, DK		60.00	2021	16.1	6.9
SSC Lithuania UAB	Kaunas, LT		100.00	2021	0.0	0.0
Stema Shipping A/S	Aabenraa, DK		60.00	2021	88.7	20.5
TBG BETONMIX a. s.	Brno, CZ		66.00	2021	9.6	2.3
TBG BETONPUMPY MORAVA s.r.o.	Brno, CZ		84.90	2021	0.8	0.3
TBG SEVEROZÁPADNÍ ČECHY s.r.o.	Chomutov, CZ		66.00	2021	2.0	0.4
TBG Slovensko, a. s.	Bratislava, SK		100.00	2021	4.3	1.7
TBG Východní Čechy s.r.o.	Mladé Buky, CZ		70.04	2021	1.9	0.6
TBG VYSOČINA s.r.o.	Kožichovice, CZ		59.40	2021	2.1	0.3
UAB HC Betonas	Kaunas, LT		100.00	2021	0.1	-0.0
UAB HeidelbergCement Klaipeda	Klaipėda, LT		100.00	2021	3.7	-0.2
Vulkan Cement AD	Dimitrovgrad, BG		98.60	2021	7.2	0.7
Subsidiaries						
North America						
Amangani SA	Panama City, PA		100.00	2022	-0.5	-0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Amcord, Inc.	Wilmington, US		100.00	2021	-5.0	-4.7
Anche Holdings Inc.	Panama City, PA		100.00	2021	0.0	0.0
Asian Carriers Inc.	Panama City, PA		100.00	2021	33.8	0.0
Astravance Corp.	Panama City, PA		100.00	2021	5.1	0.0
Beazer East, Inc.	Wilmington, US		100.00	2021	-267.7	-51.8
Cadman Materials, Inc.	Tumwater, US		100.00	2021	187.3	34.1
Cambridge Aggregates Inc.	Cambridge, CA		60.00	2021	12.1	2.4
Campbell Concrete & Materials LLC	Austin, US		100.00	2021	3.5	-6.8
Campbell Transportation Services LLC[8]	Austin, US		100.00	-	-	-
Cavenham Forest Industries LLC	Wilmington, US		100.00	2021	-91.7	-4.2
Cindercrete Mining Supplies Ltd.[5]	Regina, CA		50.00	2021	5.3	0.2
Cindercrete Products Limited	Regina, CA		100.00	2021	10.4	1.1
Commercial Aggregates Transportation and Sales, LLC	Wilmington, US		100.00	2021	2.5	0.0
Constar LLC	Wilmington, US		100.00	2021	207.0	98.0
Corliss Resources, LLC	Dover, US		100.00	2021	11.4	11.4
Cowichan Corporation	Panama City, PA		100.00	2021	0.6	-0.0
Essex NA Holdings LLC	Wilmington, US		100.00	2021	46.3	0.0
Essroc Holdings LLC	Wilmington, US		100.00	2021	789.6	0.0
Fairburn Ready-Mix, Inc.	Norcross, US		100.00	2021	16.6	1.1
Greyrock, LLC	Wilmington, US		100.00	2021	61.7	2.1
Gulf Coast Stabilized Materials LLC	Austin, US		100.00	2021	12.6	0.9
Gypsum Carrier, Inc.	Panama City, PA		100.00	2021	63.8	-39.5
Hanson Aggregates Midwest, Inc.	Frankfort, US		100.00	2021	978.8	106.4
Hanson Aggregates Pennsylvania LLC	Wilmington, US		100.00	2021	676.2	23.0
Hanson Aggregates Southeast LLC	Wilmington, US		100.00	2021	776.7	70.7
Hanson Aggregates WRP, Inc.	Wilmington, US		100.00	2021	0.0	0.0
Hanson Building Materials America LLC	Wilmington, US		100.00	2021	-402.3	-49.6
Hanson Green Limited	Hamilton, BM		100.00	2021	0.1	0.0
Hanson Micronesia Cement, Inc.	Wilmington, US		100.00	2021	5.2	0.1
Hanson Permanente Cement of Guam, Inc.	Sacramento, US		100.00	2021	52.0	2.2
Hanson Permanente Cement, Inc.	Phoenix, US		100.00	2021	14.1	-9.3
Harrell Aggregate Hauling, Inc.	Norcross, US		100.00	2021	0.0	-0.0
HBMA Holdings LLC	Wilmington, US		100.00	2021	3,667.8	-557.8
HC Trading Americas, LLC	Coral Gables, US		100.00	2021	0.7	0.6

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1)]	Equity in € million[2)]	Net income in € million[3)]
Heidelberg Materials Northeast-NY LLC	Albany, US		100.00	2021	660.9	35.4
HNA Investments	Wilmington, US		100.00	2021	1,625.3	0.0
Kaiser Gypsum Company, Inc.	Raleigh, US		100.00	2021	-74.0	1.7
KH 1 Inc.	Wilmington, US		100.00	2021	13.8	0.0
Lehigh Cement Company LLC	Wilmington, US		100.00	2021	1,411.1	191.9
Lehigh Hanson Cement South LLC	Wilmington, US		100.00	2021	365.0	55.1
Lehigh Hanson Materials Limited	Calgary, CA		100.00	2021	1,375.5	19.2
Lehigh Hanson Materials South LLC	Austin, US		100.00	2021	726.0	43.7
Lehigh Hanson Receivables LLC	Wilmington, US		100.00	2021	78.7	10.7
Lehigh Hanson Services LLC	Wilmington, US		100.00	2021	-129.8	30.0
Lehigh Hanson, Inc.	Wilmington, US		100.00	2021	11,635.8	562.9
Lehigh Northwest Cement Company	Tumwater, US		100.00	2021	154.1	6.5
Lehigh Northwest Marine, LLC	Wilmington, US		100.00	2021	4.7	0.0
Lehigh Southwest Cement Company	Sacramento, US		100.00	2021	51.5	-84.0
LHI Duomo Holdings LLC	Wilmington, US		100.00	2021	0.0	0.0
Mediterranean Carriers, Inc.	Panama City, PA		100.00	2021	-2.6	0.0
Permanente Cement Company[8)]	Los Angeles, US		100.00	-	-	-
Pioneer International Overseas Corporation	Road Town, VG		100.00	2021	164.5	0.2
Rimarcal Corporation	Panama City, PA		100.00	2021	0.0	0.0
Sherman Industries LLC	Wilmington, US		100.00	2021	23.3	-3.1
Sinclair General Corporation	Panama City, PA		100.00	2021	953.4	258.6
Standard Concrete Products, Inc.	Sacramento, US		100.00	2021	0.0	0.0
Three Rivers Management, Inc.	Wilmington, US		100.00	2021	-9.8	0.4
Vestur Insurance (Bermuda) Ltd	Hamilton, BM		100.00	2021	0.1	-0.0
Subsidiaries						
Asia-Pacific						
Alex Fraser Asphalt Holdings Pty Ltd	Sydney, AU		100.00	2021	1.1	-0.0
Alex Fraser Asphalt Pty Ltd	Sydney, AU		100.00	2021	5.1	10.0
Alex Fraser Holdings Pty Ltd	Sydney, AU		100.00	2021	4.2	0.0
Alex Fraser Pty Ltd	Sydney, AU		100.00	2021	7.2	-1.5
Asia Cement Energy Conservation Co., Ltd.[5)]	Bangkok, TH		39.53	2021	40.6	6.5
Asia Cement Products Co., Ltd.[5)]	Bangkok, TH		39.53	2021	-0.5	-3.7
Asia Cement Public Company Limited[5)]	Bangkok, TH		39.53	2021	251.9	11.3
Bitumix Granite Sdn Bhd	Kuala Lumpur, MY		100.00	2021	1.2	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Butra HeidelbergCement Sdn Bhd	Muara, BN		70.00	2021	9.2	1.6
Calga Sands Pty Ltd	Sydney, AU		100.00	2021	9.9	-0.1
CBR Cement (Guangzhou) Company Limited	Guangzhou, CN		100.00	2021	1.9	0.2
Cemix Concrete (M) Sdn Bhd	Kuala Lumpur, MY		100.00	2021	0.8	-0.2
CGF Pty Limited	Sydney, AU		100.00	2021	160.6	0.0
Christies Stone Quarries Pty Ltd	Sydney, AU		100.00	2021	0.0	0.0
Concrete Materials Laboratory Sdn Bhd[4]	Kuala Lumpur, MY		100.00	2021	0.5	0.0
Construction Materials Pty Ltd	Sydney, AU		100.00	2021	0.0	0.0
Excel Quarries Pty Limited	Sydney, AU		100.00	2021	0.1	0.0
Galli Quarries Pty Limited	Sydney, AU		100.00	2021	22.8	-0.0
Gerak Harapan Sdn Bhd	Kuala Lumpur, MY		70.00	2021	-0.2	-0.1
Gulbarga Cement Limited	Bangalore, IN		100.00	2022	38.9	-1.1
Hanson Australia (Holdings) Proprietary Limited	Sydney, AU		100.00	2021	799.8	99.9
Hanson Australia Cement (2) Pty Ltd	Sydney, AU		100.00	2021	24.8	23.9
Hanson Australia Cement Pty Limited	Sydney, AU		100.00	2021	26.5	23.9
Hanson Australia Funding Limited	Sydney, AU		100.00	2021	45.1	7.6
Hanson Australia Investments Pty Limited	Sydney, AU		100.00	2021	9.7	7.4
Hanson Australia Pty Limited	Sydney, AU		100.00	2021	856.0	132.3
Hanson Building Materials Cartage Sdn Bhd	Kuala Lumpur, MY		100.00	2021	0.8	0.2
Hanson Building Materials Malaysia Sdn Bhd	Kuala Lumpur, MY		100.00	2021	18.8	-2.1
Hanson Building Materials Manufacturing Sdn Bhd	Kuala Lumpur, MY		100.00	2021	1.8	1.1
Hanson Building Materials Production Sdn Bhd	Kuala Lumpur, MY		100.00	2021	12.5	0.2
Hanson Building Materials Transport Sdn Bhd	Kuala Lumpur, MY		100.00	2021	0.5	0.1
Hanson Building Materials-KTPC-PBPM Sdn Bhd[4]	Kuala Lumpur, MY		100.00	2021	0.0	-0.0
Hanson Building Materials-PBPM Sdn Bhd[4]	Kuala Lumpur, MY		100.00	2021	0.1	0.5
Hanson Cement Holdings Pty Ltd	Sydney, AU		100.00	2021	3.7	7.3
Hanson Concrete (M) Sdn Bhd[4]	Kuala Lumpur, MY		100.00	2021	0.5	-0.0
Hanson Construction Materials Pty Ltd	Sydney, AU		100.00	2021	0.4	54.5
Hanson Finance Australia Ltd	Sydney, AU		100.00	2021	67.4	4.2
Hanson Holdings (M) Sdn Bhd	Kuala Lumpur, MY		100.00	2021	12.1	1.3
Hanson Holdings Australia Pty Ltd	Sydney, AU		100.00	2021	32.1	32.4
Hanson Landfill Services Pty Ltd	Sydney, AU		100.00	2021	1.8	8.2
Hanson Pacific (S) Pte Limited	Singapore, SG		100.00	2021	11.0	17.6
Hanson Pty Limited	Sydney, AU		100.00	2021	2,579.5	142.8

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Hanson Quarries Victoria Pty Limited	Sydney, AU		100.00	2021	0.5	0.0
Hanson Quarry Products (Batu Pahat) Sdn Bhd	Kuala Lumpur, MY		100.00	2021	0.1	-0.0
Hanson Quarry Products (EA) Sdn Bhd[4]	Kuala Lumpur, MY		100.00	2021	0.1	0.0
Hanson Quarry Products (Holdings) Sdn Bhd	Kuala Lumpur, MY		100.00	2021	62.3	18.3
Hanson Quarry Products (Kuantan) Sdn Bhd[4]	Kuala Lumpur, MY		100.00	2021	0.2	-0.0
Hanson Quarry Products (Kulai) Sdn Bhd[4]	Kuala Lumpur, MY		100.00	2021	8.9	-0.0
Hanson Quarry Products (Land) Sdn Bhd	Kuala Lumpur, MY		100.00	2021	0.5	-0.7
Hanson Quarry Products (Masai) Sdn Bhd	Kuala Lumpur, MY		100.00	2021	0.9	1.0
Hanson Quarry Products (Pengerang) Sdn Bhd[4]	Kuala Lumpur, MY		100.00	2021	0.1	0.0
Hanson Quarry Products (Rawang) Sdn Bhd[4]	Kuala Lumpur, MY		100.00	2021	0.3	0.1
Hanson Quarry Products (Segamat) Sdn Bhd	Kuala Lumpur, MY		100.00	2021	0.7	0.1
Hanson Quarry Products (Tempoyak) Sdn Bhd	Kuala Lumpur, MY		100.00	2021	-1.9	0.0
Hanson Quarry Products (Terengganu) Sdn Bhd	Kuala Lumpur, MY		100.00	2021	0.7	0.0
Hanson Quarry Products Sdn Bhd	Kuala Lumpur, MY		100.00	2021	23.4	1.6
HC Trading (India) Private Limited	Hyderabad, IN		100.00	2021	0.2	0.0
HC Trading Asia and Pacific Pte. Ltd.	Singapore, SG		100.00	2021	1.7	0.3
HeidelbergCement (Hong Kong) Company Limited	Hong Kong S.A.R., CN		100.00	2021	0.2	0.0
HeidelbergCement Asia Pte Ltd	Singapore, SG		100.00	2021	9.0	-1.2
HeidelbergCement Bangladesh Limited	Narayanganj, BD		60.66	2021	32.8	4.0
HeidelbergCement Holding HK Limited	Hong Kong S.A.R., CN		100.00	2021	58.8	38.3
HeidelbergCement India Limited	Gurgaon (State-Haryana), IN		69.39	2022	185.9	29.9
HeidelbergCement Myanmar Company Limited	Yangon, MM		100.00	2021	0.3	0.0
Hymix Australia Pty Ltd	Sydney, AU		100.00	2021	63.5	19.6
Jalaprathan Cement Public Company Limited[5]	Bangkok, TH		35.12	2021	88.4	1.1
Jalaprathan Concrete Co., Ltd.[5]	Bangkok, TH		35.12	2021	17.4	-0.1
Melbourne Concrete Pty Ltd	Sydney, AU		100.00	2021	0.4	0.1
Naga Property Co., Ltd.[5]	Bangkok, TH		35.12	2021	0.2	-0.0
Pioneer Concrete (Tasmania) Proprietary Limited	Sydney, AU		100.00	2021	5.3	0.0
Pioneer Concrete Services (Malaysia) S/B[4]	Petaling Jaya, MY		100.00	-	-	-
Pioneer International Holdings Pty Ltd	Sydney, AU		100.00	2021	135.4	1.4
Pioneer North Queensland Pty Ltd	Sydney, AU		100.00	2021	9.1	1.7
Placecrete Australia Pty Ltd	Sydney, AU		100.00	2021	0.6	0.4
PT Bahana Indonor	Jakarta, ID		54.70	2021	18.7	0.9
PT Bhakti Sari Perkasa Abadi	Bogor Regency, ID		54.70	2021	1.0	0.2

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
PT Cipta Armada Bersama	Batam, ID		54.70	2021	0.1	-0.0
PT Dian Abadi Perkasa	Jakarta, ID		54.70	2021	112.5	8.0
PT Indocement Tunggal Prakarsa Tbk.	Jakarta, ID		54.72	2021	1,171.8	97.1
PT Indomix Perkasa	Jakarta, ID		54.72	2021	32.0	0.0
PT Kencana Terang Sejahtera	Jakarta, ID		54.70	2021	0.1	-0.0
PT Lentera Abadi Sejahtera	Jakarta, ID		54.72	2021	0.0	-0.0
PT Lintas Bahana Abadi	Jakarta, ID		54.70	2021	6.2	0.3
PT Makmur Abadi Perkasa Mandiri	Jakarta, ID		54.72	2021	0.0	-0.0
PT Makmur Lestari Abadi	Jakarta, ID		54.70	2021	0.2	-0.0
PT Makmur Lestari Indonesia	Jakarta, ID		54.70	2021	0.4	-0.0
PT Makmur Lestari Sentosa	Jakarta, ID		54.70	2021	11.6	-0.0
PT Mandiri Sejahtera Sentra	Purwakarta, ID		54.70	2021	41.5	-0.1
PT Mineral Industri Sukabumi	Jakarta, ID		54.70	2021	4.9	0.0
PT Multi Bangun Galaxy	Lombok, ID		54.70	2021	12.6	-0.0
PT Pionirbeton Industri	Jakarta, ID		54.72	2021	2.3	-2.5
PT Sahabat Muliasakti	Pati, ID		54.70	2021	-0.1	-0.0
PT Sari Bhakti Sejati	Jakarta, ID		54.72	2021	3.4	0.1
PT Semesta Perkasa Cipta	Bogor Regency, ID		54.70	2021	2.0	0.0
PT Sinar Sakti Agung	Jakarta, ID		54.70	2021	0.0	-0.0
PT Tarabatuh Manunggal	Bogor, ID		54.70	2021	26.1	0.7
PT Terang Prakarsa Cipta	Medan, ID		54.72	2021	0.2	0.0
PT Tigaroda Rumah Sejahtera	Jakarta, ID		54.72	2021	1.7	-0.1
PT Tiro Abadi Perkasa	Jakarta, ID		54.70	2021	0.0	-0.0
Queensland Recycling Holdings Pty Ltd	Sydney, AU		100.00	2021	2.6	0.0
Queensland Recycling Pty Ltd	Sydney, AU		100.00	2021	0.7	0.3
Rajang Perkasa Sdn Bhd	Kuala Lumpur, MY		60.00	2021	0.4	0.3
Realistic Sensation Sdn Bhd	Kuala Lumpur, MY		69.98	2021	1.6	0.1
Recycling Industries Pty Ltd	Sydney, AU		100.00	2021	8.3	4.1
Sofinaz Holdings Sdn Bhd	Kuala Lumpur, MY		100.00	2021	0.3	0.0
South Coast Basalt Pty Ltd	Sydney, AU		100.00	2021	3.1	1.5
Suncoast Asphalt Pty Ltd	Sydney, AU		100.00	2021	-1.1	-1.2
Tanah Merah Quarry Sdn Bhd	Kuala Lumpur, MY		100.00	2021	-2.1	0.1
Traino Group Australia Pty Ltd	Sydney, AU		70.00	2021	4.7	-0.5
Valscot Pty Limited	Sydney, AU		100.00	2021	0.0	66.7

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1)]	Equity in € million[2)]	Net income in € million[3)]
Vaniyuth Co., Ltd.[5)]	Bangkok Metropolis, TH		48.80	2021	21.9	2.6
Waterfall Quarries Pty Limited	Sydney, AU		100.00	2021	0.0	0.0
West Coast Premix Pty Ltd	Sydney, AU		100.00	2021	-0.2	-0.0
Western Suburbs Concrete Partnership[5)]	Parramatta, AU		50.00	2021	3.8	4.3
XL Premix Pty Ltd	Sydney, AU		51.00	2021	0.0	0.0
Zuari Cement Ltd.	Bangalore, IN		100.00	2022	187.8	9.0
Subsidiaries						
Africa-Eastern Mediterranean Basin						
ACH Investments Limited	Ebene, MU		100.00	2021	20.4	3.8
Africim S.A.	Casablanca, MA		51.00	2021	1.6	0.0
ATLANTIC CIMENT	Casablanca, MA		51.00	2021	28.7	-0.0
Austral Cimentos Sofala, SA	Dondo, MZ		100.00	2021	11.3	3.3
BETOSAHA SA[5)]	Laâyoune, MA		26.01	2021	1.1	0.3
Calcim S.A.	Cotonou, BJ		89.00	2021	1.6	0.6
Cimbenin S.A.	Cotonou, BJ		87.95	2021	14.6	-0.5
CimBurkina S.A.	Ouagadougou, BF		80.00	2021	36.5	10.7
Cimenterie de Lukala S.A.	Kinshasa, CD		91.02	2021	41.7	7.5
Ciments du Maroc S.A.	Casablanca, MA		51.00	2021	434.6	96.1
Ciments du Togo SA	Lomé, TG		99.63	2021	43.1	8.0
DECOM Egyptian Co for Development of Building Materials S.A.E.[5)]	Cairo, EG		36.03	2021	12.7	2.4
Gacem Company Limited	Serrekunda, GM		100.00	2021	0.7	1.7
Ghacem Ltd.	Tema, GH		93.10	2021	66.2	68.2
GRANUBENIN SA avec CA[4)]	Cotonou, BJ		89.90	2021	-0.7	0.0
Hanson (Israel) Ltd	Ramat Gan, IL		99.98	2021	211.4	22.1
Hanson Quarry Products (Israel) Ltd	Ramat Gan, IL		99.98	2021	172.5	7.6
Hanson Yam Limited Partnership	Ramat Gan, IL		99.98	2021	7.3	0.7
HC Trading FZE	Dubai, AE		100.00	2021	0.9	0.3
HeidelbergCement Afrique Service	Lomé, TG		94.43	2021	-0.0	-0.0
Helwan Cement Company S.A.E.	Helwan/Greater Cairo, EG		68.98	2021	41.5	-10.6
Industrie Sakia El Hamra "Indusaha" S.A.[5)]	Laâyoune, MA		46.41	2021	46.3	22.7
Interbulk Egypt for Export S.A.E.	Cairo, EG		100.00	2021	-0.2	-0.1
La Societe GRANUTOGO SA	Lomé, TG		89.90	2021	2.3	0.2
Liberia Cement Corporation Ltd.	Monrovia, LR		81.67	2021	30.0	12.8
Pioneer Beton Muva Umachzavot Ltd	Ramat Gan, IL		99.98	2021	0.2	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Procimar S.A.	Casablanca, MA		100.00	2021	182.3	14.9
Scantogo Mines SA	Lomé, TG		90.00	2021	33.3	10.2
Suez Cement Company S.A.E.	Cairo, EG		69.29	2021	153.0	-2.8
Suez for Transportation & Trade S.A.E.	Cairo, EG		68.71	2021	0.8	0.0
Tadir Readymix Concrete (1965) Ltd	Ramat Gan, IL		100.00	2021	0.5	0.2
Tanzania Portland Cement Public Limited Company	Dar es Salaam, TZ		69.25	2021	103.1	32.1
Teracem Limited	Accra, GH		100.00	2021	0.7	-0.6
Tourah Portland Cement Company S.A.E.	Cairo, EG		65.25	2021	-90.3	-28.7
Universal Company for Ready Mix Concrete Production S.A.E.[5]	Cairo, EG		36.03	2021	24.8	1.3
West Africa Quarries Limited	Tema, GH		83.79	2021	1.0	-0.3
Joint Operations						
Western and Southern Europe						
Atlantica de Graneles y Moliendas S.A.	Zierbena-Vizcaya, ES		49.97	2021	-21.2	-0.0
Joint Operations						
North America						
Terrell Materials LLC	Frisco, US		50.00	2021	13.1	4.3
Joint Operations						
Asia-Pacific						
Lytton Unincorporated Joint Venture	Toowong, AU		50.00	2021	0.0	0.0
Joint Ventures						
Western and Southern Europe						
ABE Deponie GmbH	Damsdorf, DE		50.00	2021	3.4	1.2
Carrières Bresse Bourgogne S.A.	Épervans, FR		33.26	2021	6.4	0.4
CaucasusCement Holding B.V.	's-Hertogenbosch, NL		45.00	2021	169.0	-0.1
Continental Blue Investment SA	Buchs, CH		50.00	2021	4.0	0.3
Cugla B.V.	Breda, NL		50.00	2021	10.4	4.4
Donau Kies GmbH & Co. KG	Fürstenzell, DE		75.00	2021	6.3	0.4
DONAU MÖRTEL - GmbH & Co. KG	Neuburg a. Inn, DE		50.00	2021	0.3	0.1
Dragages et Carrières S.A.	Épervans, FR		50.00	2021	3.9	0.6
Drew Group Holdings Limited[8]	New Milton, GB		49.00	-	-	-
Fraimbois Granulats S.à r.l.	Fraimbois, FR		50.00	2021	-0.1	0.1
GENAMO Gesellschaft zur Entwicklung des Naherholungsgebietes Misburg-Ost mbH	Hannover, DE	50.00	50.00	2021	2.4	0.7
Hafenbetriebsgesellschaft mbH & Co KG Stade	Stade, DE		50.00	2021	0.5	0.1
Harri Green Recycling, S.L.[9]	Abanto y Ciérvana, ES		50.00	-	-	-

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Heidelberger Beton Donau-Iller GmbH & Co. KG	Elchingen, DE		80.48	2021	0.8	-0.0
Heidelberger Betonpumpen Simonis GmbH & Co. KG	Ubstadt-Weiher, DE		65.29	2021	2.5	0.6
Humber Sand and Gravel Limited	Rugby, GB		50.00	2021	-0.9	0.0
KANN Beton GmbH & Co KG	Bendorf, DE		50.00	2021	0.9	0.5
Kieswerk Langsdorf GmbH	Jarmen, DE		62.45	2021	1.0	0.0
Kieswerke Flemmingen GmbH	Penig, DE		54.00	2021	3.5	0.5
Les Graves de l'Estuaire S.a.s.	Le Havre, FR		50.00	2021	-0.8	-1.0
North Tyne Roadstone Limited	Birmingham, GB		50.00	2021	-1.8	-0.3
Raunheimer Quarzsand GmbH & Co. KG	Raunheim, DE		50.00	2021	1.5	0.8
Rewinn B.V.	Amsterdam, NL		50.00	2021	0.6	-0.2
Sandkorn GmbH & Co. KG	Trappenkamp, DE		25.00	2021	0.6	0.8
SCL S.A.	Heillecourt, FR		50.00	2021	-0.8	0.0
Smiths Concrete Limited	Oxford, GB		49.00	2021	9.6	-0.4
SPS S.a.s.	Pont de l'Arche, FR		50.00	2021	4.8	0.1
TBG Bayerwald Transportbeton GmbH & Co. KG	Fürstenzell, DE		50.00	2021	0.6	0.0
TBG Ilm-Beton GmbH & Co. KG	Arnstadt, DE		55.00	2021	0.6	0.2
TBG Rott Kies und Transportbeton GmbH	Kelheim, DE		38.85	2021	0.6	0.3
TBG Transportbeton GmbH & Co. KG Naabbeton	Nabburg, DE		50.00	2021	4.2	1.6
TBG Transportbeton Oder-Spree GmbH & Co. KG	Wriezen, DE		50.00	2021	1.5	0.7
TBG Transportbeton Reichenbach GmbH & Co. KG	Reichenbach, DE		70.00	2021	0.6	-0.1
TBG Transportbeton Werner GmbH & Co. KG	Dietfurt a.d. Altmühl, DE		38.85	2021	0.1	0.4
Transportbeton Johann Braun GmbH & Co. KG	Tröstau, DE		50.00	2021	0.6	0.5
Trapobet Transportbeton GmbH Kaiserslautern Kommanditgesellschaft	Kaiserslautern, DE		50.00	2021	1.0	1.2
Joint Ventures						
Northern and Eastern Europe-Central Asia						
AS Betongpumping	Våler i Østfold, NO		50.00	2021	0.8	0.1
Betong Øst AS	Kongsvinger, NO		50.00	2021	11.7	12.4
Betong Vest AS	Blomsterdalen, NO		40.00	2021	3.3	0.1
BT Topbeton Sp. z o.o.	Gorzów Wielkopolski, PL		50.00	2021	6.4	1.3
CEMET S.A.	Warszawa, PL		42.91	2021	21.7	4.5
Devnya Limestone AD, Chernevo	Chernevo Village, BG		49.97	2021	13.1	0.4
Duna-Dráva Cement Kft.	Vác, HU		50.00	2021	251.7	108.6
JSC "Mineral Resources Company"	Ishimbay, RU		50.00	2021	11.2	0.8
LOMY MOŘINA spol. s r.o.	Mořina, CZ		48.95	2021	11.4	0.1

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
PÍSKOVNY MORAVA spol. s r.o.	Němčičky, CZ		50.00	2021	2.6	0.7
Pražské betonpumpy a doprava s.r.o.	Praha, CZ		50.00	2021	2.8	0.2
Tangen Eiendom AS	Brevik, NO		50.00	2021	3.5	0.2
TBG METROSTAV s.r.o.	Praha, CZ		50.00	2021	14.2	2.0
TBG Plzeň Transportbeton s.r.o.	Beroun, CZ		50.10	2021	2.5	0.7
TBG SWIETELSKY s.r.o.	České Budějovice, CZ		51.00	2021	1.4	0.3
Vltavské štěrkopísky, s.r.o.	Chlumín, CZ		50.00	2021	4.2	1.3
Joint Ventures						
North America						
American Stone Company	Raleigh, US		50.00	2021	2.6	0.8
BP General Partner Ltd. [8]	Winnipeg, CA		50.00	-	-	-
Building Products & Concrete Supply Limited Partnership	Winnipeg, CA		50.00	2021	11.5	6.3
Bulk Silos LLC	Mendota Heights, US		50.00	2021	0.0	-0.1
China Century Cement Ltd.	Hamilton, BM		50.00	2021	171.2	24.3
Jack Cewe Construction Ltd.	Coquitlam, CA		50.00	2021	11.4	1.2
Project Potter Parent, L.P.	Grand Cayman, KY		44.90	2022	160.4	-266.5
Red Bluff Sand & Gravel, L.L.C.	Birmingham, US		50.00	2021	6.1	0.8
Sunset Quarry, L.L.C.	Tacoma, US		50.00	2021	0.4	-0.2
Texas Lehigh Cement Company LP	Austin, US		50.00	2021	137.3	55.6
Joint Ventures						
Asia-Pacific						
Alliance Construction Materials Limited	Hong Kong S.A.R., CN		50.00	2021	24.7	2.1
Cement Australia Holdings Pty Ltd	Darra, AU		50.00	2021	188.1	28.2
Cement Australia Partnership	Darra, AU		50.00	2021	94.7	137.0
Cement Australia Pty Limited	Darra, AU		50.00	2021	0.0	0.0
Easy Point Industrial Ltd.	Hong Kong S.A.R., CN		50.00	2021	0.6	0.0
Jidong Heidelberg (Fufeng) Cement Company Limited	Baoji City, CN		48.11	2021	117.7	45.2
Jidong Heidelberg (Jingyang) Cement Company Limited	Xianyang City, CN		50.00	2021	115.6	48.3
M&H Quarries Partnership	Doncaster, AU		50.00	2021	-2.8	-0.3
Metromix Pty Limited	Parramatta, AU		50.00	2021	14.0	0.4
Penrith Lakes Development Corporation Limited	Castlereagh, AU		20.00	2021	-111.9	-0.7
Squareal Cement Ltd	Hong Kong S.A.R., CN		50.00	2021	122.4	34.2

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Joint Ventures						
Africa-Eastern Mediterranean Basin						
Akçansa Çimento Sanayi ve Ticaret A.S.	Ataşehir/Istanbul, TR	39.72	39.72	2021	102.5	15.6
Associates						
Western and Southern Europe						
Béton Contrôle des Abers S.a.s.	Lannilis, FR		34.00	2021	6.7	0.8
Betuwe Beton Holding B.V.	Tiel, NL		50.00	2021	8.3	0.8
bihek GmbH	Freiburg im Breisgau, DE		24.00	2021	0.0	-0.1
C.V. Projectbureau Grensmaas	Born, NL		8.24	2021	11.7	1.4
Dijon Béton S.A.	Saint-Apollinaire, FR		15.00	2021	8.4	-0.1
Ernst Marschall GmbH & Co. KG Kies- und Schotterwerke	Kressbronn, DE		19.96	2021	4.0	0.7
Fertigbeton (FBU) GmbH & Co Kommanditgesellschaft Unterwittbach[6]	Kreuzwertheim, DE		57.14	2021	0.3	-0.7
Foundamental GmbH & Co. KG[6]	Berlin, DE		100.00	2021	36.4	-0.5
Foundamental Revolution Fund GmbH & Co. KG[6]	Berlin, DE		59.71	2021	0.0	-0.0
Heidelberger Beton Grenzland GmbH & Co. KG	Marktredwitz, DE		50.00	2021	0.4	1.5
Heidelberger Beton Inntal GmbH & Co. KG[6]	Altötting, DE		68.39	2021	0.6	1.8
ISAR-DONAU MÖRTEL-GmbH & Co. KG	Passau, DE		33.33	2021	0.8	0.1
Kronimus Aktiengesellschaft	Iffezheim, DE	24.90	24.90	2021	39.8	6.8
Kronimus SAS	Maizières-lès-Metz, FR		43.60	2021	6.0	1.1
Maasgrind B.V.	Maasbracht, NL		16.48	2021	1.0	0.4
Maasgrind Ontwikkeling B.V.	Maasbracht, NL		16.48	2021	0.1	0.0
Materiaux Traites du Hainaut S.A.	Antoing, BE		50.00	2021	0.6	0.0
MERMANS BETON N.V.	Arendonk, BE		50.00	2021	0.2	-0.3
Misburger Hafengesellschaft mit beschränkter Haftung	Hannover, DE	39.66	39.66	2021	1.6	0.2
Münchner Mörtel GmbH & Co. KG	München, DE		20.00	2021	0.1	-0.0
Nederlands Cement Transport Cetra B.V.	Uithoorn, NL		50.00	2021	2.5	0.4
Panheel (Maatschappij tot Exploitatie van het Ontgrondingsproject Panheel) B.V.	Maasbracht, NL		16.48	2021	0.3	-0.0
Peene Kies GmbH	Jarmen, DE		24.90	2021	3.2	0.2
Raunheimer Sand- und Kiesgewinnung Blasberg GmbH & Co. KG	Raunheim, DE		23.53	2021	0.5	0.5
Recybel S.A.	Flémalle, BE		25.50	2021	0.6	0.3
Recyfuel S.A.	Braine-l'Alleud, BE		50.00	2021	14.3	1.9
Stinkal S.a.s.	Ferques, FR		35.00	2021	-6.0	-2.8
Südbayerisches Portland-Zementwerk Gebr. Wiesböck & Co. GmbH	Rohrdorf, DE	23.90	23.90	2021	693.3	70.1
TBG Deggendorfer Transportbeton GmbH	Deggendorf, DE		33.33	2021	1.2	0.8

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TBG Singen GmbH & Co. KG	Singen, DE		36.90	2021	0.0	-0.1
TBG Transportbeton Caprano GmbH & Co. KG	Heidelberg, DE		50.00	2021	0.3	0.3
TBG Transportbeton Gesellschaft mit beschränkter Haftung & Co. KG. Hohenlohe	Schwäbisch Hall, DE		25.00	2021	0.3	-0.2
TBG Transportbeton GmbH & Co. KG Betonpumpendienst[6)]	Nabburg, DE		55.54	2021	0.5	0.9
TBG Transportbeton GmbH & Co.KG Lohr-Beton	Lohr am Main, DE		50.00	2021	0.2	0.3
Transbeton Gesellschaft mit beschränkter Haftung & Co Kommanditgesellschaft	Löhne, DE		27.34	2021	2.7	1.6
Van Zanten Holding B.V.	Leek, NL		25.00	2021	6.5	1.7
Zement- und Kalkwerke Otterbein GmbH & Co. KG	Großenlüder-Müs, DE	38.10	38.10	2021	3.5	0.8
Associates						
Northern and Eastern Europe-Central Asia						
Ribe Betong AS	Kristiansand, NO		40.00	2021	3.3	1.9
SP Bohemia, k.s.[6)]	Králův Dvůr, CZ		75.00	2021	10.5	0.6
Sylteosen Betong AS	Elnesvågen, NO		39.94	2021	2.8	0.8
TBG Louny s.r.o.	Louny, CZ		33.33	2021	1.0	0.4
TBG PKS a.s.	Žďár nad Sázavou, CZ		29.70	2021	3.7	0.3
TBG PODIVÍN s.r.o.	Brno, CZ		33.00	2021	0.9	0.2
Vassiliko Cement Works Ltd.	Nicosia, CY		25.96	2021	246.8	17.4
Associates						
North America						
Cemstone Products Company	Mendota Heights, US		35.32	2021	74.5	14.4
Cemstone Ready-Mix, Inc.	Mendota Heights, US		33.01	2021	11.1	0.9
Chaney Enterprises 2, LLC	Lothian, US		25.00	2021	33.6	8.6
Chaney Enterprises Limited Partnership	Lothian, US		25.00	2021	101.3	27.4
Giatec Scientific, Inc.	Ottawa, CA		15.19	2021	6.2	-0.2
Innocon Inc.	Richmond Hill, CA		45.00	2021	39.7	3.9
Innocon Partnership	Richmond Hill, CA		45.00	2021	-8.1	4.8
RF Properties East, LLC	Lothian, US		25.00	2021	-0.9	0.0
RF Properties, LLC	Lothian, US		25.00	2021	2.8	0.6
Southstar Limited Partnership	Lothian, US		25.00	2021	84.6	-3.1
Sustainable Land Use, LLC	Lothian, US		25.00	2021	40.4	20.2
Associates						
Asia-Pacific						
PT Bhakti Sari Perkasa Bersama	Bogor Regency, ID		16.41	2021	1.2	0.3
PT Cibinong Center Industrial Estate	Bogor Regency, ID		27.36	2021	6.3	1.1

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PT Jaya Berdikari Cipta	Bogor, ID		27.35	2021	3.0	0.5
PT Pama Indo Mining	Jakarta, ID		21.88	2021	4.3	1.1
PT Tripa Semen Aceh	Jakarta, ID		20.34	2021	-0.5	0.0
Associates						
Africa-Eastern Mediterranean Basin						
Asment Temara S.A.	Témara, MA		37.01	2021	80.1	27.9
CEMZA (PTY) LTD	Midrand, ZA		40.00	2022	10.6	4.8
Fortia Cement S.A.	Lomé, TG		50.00	2021	8.1	0.6
Tecno Gravel Egypt S.A.E.	Cairo, EG		31.18	2021	2.9	0.4
The following subsidiaries are reflected in the consolidated financial statements at cost due to their immateriality.						
Immaterial subsidiaries						
Western and Southern Europe						
3G JONICA S.C.A.R.L.	Bergamo, IT		55.00	2021	0.1	0.0
Azienda Agricola Lodoletta S.r.l.	Bergamo, IT		75.00	2021	1.3	0.3
Betotech Baustofflabor GmbH	Heidelberg, DE	100.00	100.00	2021	0.3	0.1
Betotech GmbH, Baustofftechnisches Labor	Nabburg, DE		72.08	2021	0.2	0.0
Cava delle Capannelle S.r.l.	Almenno San Bartolomeo, IT		76.00	2021	0.2	0.1
CSPS Trustees Limited	Maidenhead, GB		100.00	2021	0.0	0.0
Entreprise Lorraine d'Agriculture - ELDA S.à r.l.	Heillecourt, FR		100.00	2021	0.1	0.0
Etablissement F.S. Bivois SARL	Strasbourg, FR		60.00	2021	0.3	0.0
Garonne Labo S.à r.l.[5)]	St Léger, FR		40.05	2021	0.0	0.0
GIE GM	Guerville, FR		63.00	2021	-0.0	-0.0
Hanson (ER-No 3) Limited[8)]	London, GB		100.00	-	-	-
HConnect 2 GmbH	Heidelberg, DE		100.00	2021	0.0	-0.0
HConnect GmbH	Heidelberg, DE		100.00	2021	0.0	-0.0
HeidelbergCement Grundstücksverwaltungsgesellschaft mbH	Heidelberg, DE	100.00	100.00	2021	0.1	0.0
HeidelbergCement Shared Services GmbH	Leimen, DE	100.00	100.00	2021	2.1	0.2
HeidelbergCement, Funk & Kapphan Grundstücksverwaltungsgesellschaft mbH	Heidelberg, DE	80.00	80.00	2021	0.0	0.0
Heidelberger Beton Donau-Naab Verwaltungsgesellschaft mbH	Burglengenfeld, DE		77.70	2021	0.0	0.0
Heidelberger Beton Gersdorf GmbH & Co. KG	Gersdorf, DE		65.00	2021	0.1	0.0
Heidelberger Beton Gersdorf Verwaltungs- und Beteiligungs-GmbH	Gersdorf, DE		65.00	2021	0.0	0.0
Heidelberger Beton Personal-Service GmbH	Heidelberg, DE		100.00	2021	0.1	0.0
Heidelberger Betonelemente Verwaltungs-GmbH	Chemnitz, DE		83.00	2021	0.1	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
HPL 3 Limited[8]	London, GB		100.00	-	-	-
Lindustries (D) Limited[8]	London, GB		100.00	-	-	-
Lithonplus Verwaltungs-GmbH	Lingenfeld, DE		60.00	2021	0.0	0.0
Matériaux de Boran S.A.	Tourcoing, FR		99.76	2021	0.0	-0.0
MM MAIN-MÖRTEL GmbH & Co.KG	Kleinostheim, DE		84.19	2021	0.1	0.1
MM MAIN-MÖRTEL Verwaltungsgesellschaft mbH	Aschaffenburg, DE		84.19	2021	0.0	0.0
MS "Wesertrans" Verwaltungsgesellschaft mbH	Elsfleth, DE		75.00	2021	0.0	0.0
MTE Mineralstoff Terminal Emden GmbH	Emden, DE		60.00	2021	0.3	0.1
NOHA Norddeutsche Hafenumschlagsgesellschaft mbH	Cadenberge, DE		60.00	2021	0.1	0.0
Rederij Cement-Tankvaart B.V.	Terneuzen, NL		66.64	2021	6.2	1.7
SBIC Limited[8]	Gibraltar, GI		100.00	-	-	-
SCI de Balloy	Avon, FR		100.00	2021	-0.0	-0.0
SCI du Colombier	Rungis, FR		63.00	2021	0.0	0.0
Société Civile Bachant le Grand Bonval	Guerville, FR		80.00	2021	0.0	0.0
Société Civile d'Exploitation Agricole de l'Avesnois	Guerville, FR		80.00	2021	0.0	0.0
Société d'Extraction et d'Aménagement de la Plaine de Marolles SEAPM S.a.s.	Avon, FR		56.40	2021	0.4	-0.4
SPRL Ferme de Wisempierre	Antoing, BE		100.00	2021	1.7	-0.0
TBM Transportbeton-Gesellschaft mbH Marienfeld & Co. KG	Harsewinkel, DE		87.50	2021	0.1	0.0
TBM Transportbeton-Gesellschaft mit beschränkter Haftung Marienfeld	Harsewinkel, DE		87.50	2021	0.0	0.0
Transportbeton Meschede Gesellschaft mit beschränkter Haftung	Meschede, DE		58.06	2021	0.0	0.0
Transportbeton Meschede GmbH & Co. KG	Meschede, DE		58.06	2021	0.1	0.2
WIKING Baustoff- und Transport Gesellschaft mit beschränkter Haftung[8]	Geseke, DE		100.00	-	-	-
WIKING Baustoff- und Transport GmbH & Co. Kommanditgesellschaft[8]	Geseke, DE		100.00	-	-	-
Immaterial subsidiaries						
Northern and Eastern Europe-Central Asia						
8 Vershin LLP	Almaty, KZ		100.00	2021	0.1	0.0
Agromir Sp. z o.o.	Chorula, PL		100.00	2021	-0.0	-0.0
Agrowelt Sp. z o.o.	Chorula, PL		100.00	2021	0.7	0.0
Azer-E.S. Limited Liability Company	Baku, AZ	100.00	100.00	2021	-4.1	0.2
Center Cement Plus Limited Liability Partnership	Astana, KZ		100.00	2021	0.7	0.0
Centrum Technologiczne Betotech Sp. z o.o.	Dąbrowa Górnicza, PL		100.00	2021	0.2	-0.0
Donau Kies Bohemia Verwaltungs, s.r.o.	Pilsen, CZ		75.00	2021	0.0	0.0
Eurotech Cement S.h.p.k.	Durrës, AL		92.41	2021	-1.1	0.1
Fastighets AB Lövholmen 1	Stockholm, SE		100.00	2021	0.0	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Fastighets AB Lövholmen 2	Stockholm, SE		100.00	2021	0.0	0.0
Fastighets AB Lövholmen 3	Stockholm, SE		100.00	2021	0.0	0.0
Fastighets AB Lövholmen 4	Stockholm, SE		100.00	2021	0.0	0.0
Fastighets AB Lövholmen 5	Stockholm, SE		100.00	2021	0.0	0.0
Fastighets AB Lövholmen 6	Stockholm, SE		100.00	2021	0.0	0.0
Fastighets AB Lövholmen 7	Stockholm, SE		100.00	2021	0.0	0.0
Fastighets AB Lövholmen 8	Stockholm, SE		100.00	2021	0.0	0.0
Fastighets AB Lövholmen 9	Stockholm, SE		100.00	2021	0.0	0.0
Fastighets AB Lövholmen 10	Stockholm, SE		100.00	2021	0.0	0.0
Fastighets AB Lövholmen 11	Stockholm, SE		100.00	2021	0.0	0.0
Geo Nieruchomości Sp. z o.o.	Chorula, PL		100.00	2021	0.1	0.0
Global IT Center, s.r.o.	Brno, CZ		100.00	2021	4.1	0.5
LLC HC Yug	Podolsk, RU		100.00	2021	-0.2	-0.1
MIXT Sp. z o.o.	Chorula, PL		100.00	2021	0.7	-0.1
Podgrodzie Sp. z o.o.	Raciborowice Górne, PL		100.00	2021	0.7	-0.4
Polgrunt Sp. z o.o.	Chorula, PL		100.00	2021	2.3	0.2
Shqiperia Cement Company Shpk	Tirana, AL		100.00	2021	0.6	-0.0
TRANS-SERVIS,spol. s r.o.	Praha, CZ		100.00	2021	1.3	0.0
Immaterial subsidiaries						
North America						
Charleston Koppers FTA Park LLC[8]	Wilmington, US		100.00	-	-	-
Conservation Resources Company, Inc.[9]	Springfield, US		100.00	-	-	-
Hanson (ER-No 16) Inc.[8]	Wilmington, US		100.00	-	-	-
Industrial Del Fresno SA[8]	San Miguel de Allende, MX		76.00	-	-	-
Kidde Industries, Inc.[8]	Wilmington, US		100.00	-	-	-
PUSH NA Holdings, Inc.[8]	Wilmington, US		100.00	-	-	-
Total Limited[8]	Wilmington, US		100.00	-	-	-
Volt RMC Solutions Canada Ltd.[9]	Montreal, CA		100.00	-	-	-
VOLT RMC Solutions, Inc.[9]	Wilmington, US		100.00	-	-	-
Immaterial subsidiaries						
Asia-Pacific						
Vesprapat Holding Co., Ltd.[4] [5]	Bangkok, TH		49.00	-	-	-

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Immaterial subsidiaries						
Africa-Eastern Mediterranean Basin						
C.N.A. - Cimentos Nacionais de Angola S.A.[8]	Luanda, AO		56.00	-	-	-
FOUNDATION HEIDELBERGCEMENT TOGO	Lomé, TG		93.21	2021	0.0	0.0
Granuburkina SA[9]	Ouagadougou, BF		100.00	-	-	-
Intercom Libya F.Z.C.[8]	Misrata, LY		100.00	-	-	-
Suez for Import & Export Co S.A.E.	Cairo, EG		68.71	2021	-0.0	-0.0
Terra Cimentos LDA[8]	Dondo, MZ		100.00	-	-	-
The following joint arrangements and associates are accounted for at cost due to their immateriality.						
Immaterial joint arrangements and associates						
Western and Southern Europe						
Alzagri NV	Brugge, BE		50.00	2021	1.2	0.3
Asto Holding B.V.	Raamsdonksveer, NL		33.32	2021	1.5	0.5
Asto Investment B.V.	Raamsdonksveer, NL		33.32	2021	0.7	0.2
Auxerre Béton S.à r.l.	Guerville, FR		50.00	2021	0.3	0.2
Baustoff- und Umschlags-GmbH	Mosbach, DE		33.33	2021	0.4	0.0
Calcaires de la Rive Gauche I SPRL	Nivelles, BE		35.00	2021	3.6	-0.3
Canteras Aldoyar, S.L.[8]	Olazagutia, ES		19.99	-	-	-
Cap2U GmbH[9]	Triefenstein-Lengfurt, DE	30.00	30.00	-	-	-
Cementi della Lucania S.r.l.	Potenza, IT		30.00	2021	-0.5	-0.0
CI4C GmbH & Co. KG	Heidenheim an der Brenz, DE	25.00	25.00	2021	3.5	0.0
CI4C Verwaltungs GmbH	Heidenheim an der Brenz, DE		25.00	2021	0.0	0.0
Consorzio Stabile San Francesco S.C.A.R.L.	Foligno, IT		42.00	2021	0.1	0.0
Deltapav S.r.l.	Samarate, IT		45.01	2021	0.9	0.1
Donau Kies Verwaltungs GmbH[6]	Fürstenzell, DE		75.00	2021	0.0	0.0
DONAU MÖRTEL-Verwaltungs und-GmbH	Passau, DE		50.00	2021	0.0	0.0
Eurocalizas S.L.[8]	Meruelo, ES		33.31	-	-	-
Fertigbeton (FBU) Gesellschaft mit beschränkter Haftung[6]	Kreuzwertheim, DE		57.14	2021	0.0	0.4
GAM Greifswalder Asphaltmischwerke VerwaltungsGmbH[4]	Greifswald, DE		30.00	2021	0.1	-0.0
Generalcave S.r.l. - in liquidazione[4]	Fiumicino, IT		50.00	2021	-0.0	0.0
GIE des Terres de Mayocq	Le Crotoy, FR		32.49	2021	-0.0	-0.0
GIE Loire Grand Large	Saint-Herblain, FR		26.00	2021	-0.0	-0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
GIE Manche Est	Rouxmesnil-Bouteilles, FR		20.00	2021	-0.0	0.0
GIE Sud Atlantique	La Rochelle, FR		50.00	2021	-0.1	-0.0
Granulats Marins de Normandie GIE	Le Havre, FR		32.50	2021	0.0	0.0
Hafen- und Lagergesellschaft Greifswald mbH	Greifswald, DE		30.00	2021	0.2	0.1
Hafenbetriebs- und Beteiligungs-GmbH, Stade[8]	Stade, DE		50.00	-	-	-
Heidelberger Beton Donau-Iller Verwaltungs-GmbH[6]	Elchingen, DE		80.65	2021	0.1	0.0
Heidelberger Beton Grenzland Verwaltungs-GmbH	Marktredwitz, DE		50.00	2021	0.0	0.0
Heidelberger Beton Inntal Verwaltungs-GmbH[6]	Altötting, DE		68.39	2021	0.0	0.0
Heidelberger Beton Karlsruhe GmbH & Co. KG[4] [6]	Karlsruhe, DE		50.30	-	-	-
Heidelberger Beton Karlsruhe Verwaltungs-GmbH[4] [6]	Karlsruhe, DE		50.30	-	-	-
Heidelberger Beton Kurpfalz GmbH & Co. KG[4] [6]	Eppelheim, DE		64.73	2021	1.0	-0.0
Heidelberger Beton Kurpfalz Verwaltungs-GmbH[4] [6]	Eppelheim, DE		64.73	-	-	-
Heidelberger Betonpumpen Simonis Verwaltungs-GmbH[6]	Ubstadt-Weiher, DE		65.25	2021	0.0	0.0
Hormigones Olazti S.A[8]	Olazagutia, ES		24.99	-	-	-
Hormigones Txingudi S.A.	San Sebastián, ES		33.31	2021	0.1	-0.0
ISAR-DONAU MÖRTEL-Verwaltungs-GmbH	Plattling, DE		33.33	2021	0.0	0.0
ISIS Management Company Limited	Scarborough, GB		30.87	2021	-0.0	0.0
KANN Beton Verwaltungsgesellschaft mbH	Bendorf, DE		50.00	2021	0.1	0.0
KVB Verwaltungs- und Beteiligungs-GmbH[4]	Karlsdorf-Neuthard, DE		24.41	-	-	-
Les Quatre Termes S.a.s.	Salon-de-Provence, FR		50.00	2021	0.1	-0.0
Les Sables de Mezieres S.a.s.	Saint-Pierre-des-Corps, FR		50.00	2021	0.3	-0.0
Lippe-Kies GmbH & Co. KG	Delbrück, DE		50.00	2021	0.2	0.1
Lippe-Kies Verwaltungs GmbH	Delbrück, DE		50.00	2021	0.0	0.0
Mantovana Inerti S.r.l.	Castiglione delle Stiviere, IT		50.00	2021	2.2	0.1
Mendip Rail Limited	Markfield, GB		50.00	2021	-2.0	-0.0
MS "Wesertrans" Binnenschiffsreederei GmbH & Co. KG[6] [8]	Elsfleth, DE		68.75	-	-	-
Münchner Mörtel Verwaltungsges. mbH	München, DE		20.00	2021	0.0	0.0
Neuciclaje S.A.	Bilbao, ES		49.97	2021	-0.1	-0.0
Nordhafen Stade-Bützfleth Verwaltungsgesellschaft mbH	Stade, DE		20.00	2021	0.0	-0.0
Otterbein Gesellschaft mit beschränkter Haftung	Großenlüder-Müs, DE	20.00	20.00	2021	0.0	0.0
Padyear Limited	Maidenhead, GB		50.00	2021	-0.2	0.0
Peters Cement Overslagbedrijf B.V.	Raamsdonksveer, NL		33.32	2021	2.0	0.8
Raunheimer Quarzsand Verwaltungsgesellschaft mbH	Raunheim, DE		50.00	2021	0.0	0.0

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
S.A.F.R.A. S.r.l. - in liquidazione[4]	Bologna, IT		33.33	-	-	-
San Francesco S.c.a.r.l. in liquidazione[4]	Foligno, IT		45.71	-	-	-
Sandkorn Verwaltungs GmbH	Nortorf, DE		25.00	2021	0.1	0.0
SCI de Barbeau	Bray-sur-Seine, FR		49.00	2021	0.0	0.0
SCI des Granets	Cayeux-sur-Mer, FR		33.33	2021	-0.0	-0.0
SCI La Motte au Bois	Harnes, FR		50.00	2021	0.0	0.0
Société Foncière de la Petite Seine S.a.s.	Saint-Sauveur-lès-Bray, FR		42.25	2021	-0.1	-0.2
TBG Bayerwald Verwaltungs-GmbH	Fürstenzell, DE		50.00	2021	0.0	0.0
TBG Ilm-Beton Verwaltungs-GmbH[6]	Arnstadt, DE		55.00	2021	0.0	0.0
TBG Singen Verwaltungs-GmbH	Singen, DE		36.90	2021	0.0	0.0
TBG Transportbeton Caprano Verwaltungs-GmbH	Heidelberg, DE		50.00	2021	0.0	0.0
TBG Transportbeton Gesellschaft mit beschränkter Haftung	Schwäbisch Hall, DE		25.00	2021	0.0	0.0
TBG Transportbeton Lohr Verwaltungsgesellschaft mbH	Lohr am Main, DE		50.00	2021	0.0	0.0
TBG Transportbeton Oder-Spree Verwaltungs-GmbH	Wriezen, DE		50.00	2021	0.0	0.0
TBG Transportbeton Reichenbach Verwaltungs-GmbH[6]	Reichenbach, DE		70.00	2021	0.1	0.0
TBG Transportbeton Verwaltungsgesellschaft mbH	Nabburg, DE		50.00	2021	0.0	0.0
TBG Transportbeton Werner Verwaltungsgesellschaft mbH	Dietfurt a.d. Altmühl, DE		38.85	2021	0.0	0.0
terravas GmbH[8]	Königs Wusterhausen, DE		50.00	-	-	-
Transbeton Gesellschaft mit beschränkter Haftung	Löhne, DE		27.34	2021	0.0	0.0
Transportbeton Johann Braun Geschäftsführungs GmbH	Tröstau, DE		50.00	2021	0.0	0.0
Urzeit Weide GbR	Schelklingen, DE	50.00	50.00	2021	0.1	0.0
Verwaltungsgesellschaft mit beschränkter Haftung TRAPOBET Transportbeton Kaiserslautern	Kaiserslautern, DE		50.00	2021	0.0	0.0
Immaterial joint arrangements and associates						
Northern and Eastern Europe-Central Asia						
Björgun - Bygg ehf.	Reykjavík, IS		26.49	2021	0.0	-0.0
Kalkkaia AS	Verdal, NO		50.00	2021	2.6	-0.6
Velkolom Čertovy schody, akciová společnost	Tmaň, CZ		50.00	2021	7.3	0.2
Immaterial joint arrangements and associates						
North America						
KHB Venture LLC[8]	Waltham, US		33.33	-	-	-
Newbury Development Associates, LP[8]	Bridgeville, US		35.00	-	-	-

Company name	Registered office	HC AG direct ownership %	Group ownership %	Year[1]	Equity in € million[2]	Net income in € million[3]
Newbury Development Management, LLC[8]	Bridgeville, US		35.00	-	-	-
Project Potter Parent GP, LLC[8]	Grand Cayman, KY		49.00	-	-	-
Woodbury Investors, LLC[8]	Atlanta, US		50.00	-	-	-
Immaterial joint arrangements and associates						
Asia-Pacific						
Diversified Function Sdn Bhd	Kuala Lumpur, MY		50.00	2021	-0.1	-0.0
Pornphen Prathan Company Limited[4]	Bangkok, TH		49.70	-	-	-
Sanggul Suria Sdn Bhd	Kuala Lumpur, MY		45.00	2021	-0.0	-0.0
Immaterial joint arrangements and associates						
Africa-Eastern Mediterranean Basin						
Ceval GIE	Casablanca, MA		29.34	2021	0.0	0.0
Italcementi for Cement Manufacturing - Libyan J.S.C.[8]	Tripoli, LY		50.00	-	-	-
Suez Lime S.A.E.[4]	Cairo, EG		34.60	-	-	-

1) Last fiscal year for which financial statements are available.
2) Translated with the closing rate of the fiscal year for which financial statements are available.
3) Translated with the average rate of the fiscal year for which financial statements are available.
4) In liquidation
5) Controlling influence through contractual arrangements and/or legal regulations.
6) Absence of controlling influence through contractual arrangements and/or legal regulations
7) The company makes use of the exemption from disclosure obligations in accordance with section 264(3) or with section 264b of the German Commercial Code (HGB).
8) Information on equity and earnings is omitted pursuant to section 313(3) or to section 286(3), sentence 1, no. 1 of the German Commercial Code (HGB) if such information is of minor relevance for a fair presentation of the assets, financial, and earnings position of HeidelbergCement AG.
9) Company founded last year. Therefore, no annual financial statement available yet.

Heidelberg, 22 March 2023

HeidelbergCement AG

The Managing Board

Independent auditor's report

To HeidelbergCement AG, Heidelberg

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

Audit Opinions

We have audited the consolidated financial statements of HeidelbergCement AG, Heidelberg, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2022, and the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of cash flows and consolidated statement of changes in equity for the financial year from 1 January to 31 December 2022, and group notes, including a summary of significant accounting policies. In addition, we have audited the combined management report of HeidelbergCement AG, which is combined with the Company's management report, for the financial year from 1 January to 31 December 2022. In accordance with the German legal requirements, we have not audited the content of those parts of the combined management report listed in the "Other Information" section of our auditor's report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § [Article] 315e Abs. [paragraph] 1 HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2022, and of its financial performance for the financial year from 1 January to 31 December 2022, and

- the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the combined management report does not cover the content of those parts of the combined management report listed in the "Other Information" section of our auditor's report.

Pursuant to §322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with §317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January to 31 December 2022. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matters of most significance in our audit were as follows:

1. **Recoverability of goodwill**
2. **Accounting treatment of deferred taxes**
3. **Obligations arising from tax matters**

Our presentation of these key audit matters has been structured in each case as follows:

a) Matter and issue

b) Audit approach and findings

c) Reference to further information

Hereinafter we present the key audit matters:

1 Recoverability of goodwill

a) In the Company's consolidated financial statements goodwill amounting in total to EUR 8,368.1 million (25.2% of total assets or 47.5% of equity) is reported under the "Intangible assets" balance sheet item. Goodwill is tested for impairment by the Company once a year or when there are indications of impairment to determine any possible need for write-downs. The impairment test is carried out at the level of the groups of cash-generating units to which the relevant goodwill is allocated. The carrying amount of the relevant cash-generating units, including goodwill, is compared with the corresponding recoverable amount in the context of the impairment test. The recoverable amount is generally determined using the value in use. The present value of the future cash flows from the respective group of cash-generating units normally serves as the basis of valuation. Present values are calculated using discounted cash flow models. For this purpose, the adopted medium-term business plan of the Group forms the starting point which is extrapolated based on assumptions about long-term rates of growth. Expectations relating to future market developments and assumptions about the development of macroeconomic factors as well as the expected effects on the Group's business activities of the geopolitical and economic distortions and the corporate strategy geared towards carbon neutrality are also taken into account. The discount rate used is the weighted average cost of capital for the respective group of cash-generating units. The impairment test determined that no write-downs were necessary.

The outcome of this valuation is dependent to a large extent on the estimates made by the executive directors with respect to the future cash flows from the respective group of cash-generating units, the discount rate used, the rate of growth and other assumptions, and is therefore subject to considerable uncertainty. Against this background and due to the complex nature of the valuation, this matter was of particular significance in the context of our audit.

b) As part of our audit, we assessed the methodology used for the purposes of performing the impairment test, among other things. After matching the future cash flows used for the calculation against the adopted medium-term business plan of the Group, we assessed the appropriateness of the calculation, in particular by reconciling it with general and sector-specific market expectations. In this context, we also evaluated the assessment of the executive directors regarding the effects of the geopolitical and economic distortions and the corporate strategy geared towards carbon neutrality on the Group's business activities, and examined how this was taken into consideration in determining the future cash flows. In the knowledge that even relatively small changes in the discount rate applied can have a material impact on the value of the entity calculated in this way, we also assessed the parameters used to determine the discount rate applied, and evaluated the measurement model. In order to reflect the uncertainty inherent in the projections, we evaluated the sensitivity analyses performed by the Company and carried out our own sensitivity analyses for those groups of cash-generating units with low headroom (recoverable amount compared with the carrying amount) in order to estimate any potential impairment risk related to key assumptions of the measurement. We verified that the necessary disclosures were made in the group notes relating to groups of cash-generating units for which a reasonably possible change in an assumption would result in the recoverable amount falling below the carrying amount of the cash-generating units including the allocated goodwill.

Overall, the valuation parameters and assumptions used by the executive directors are in line with our expectations and are also within the ranges considered by us to be reasonable.

c) The Company's disclosures on the "goodwill" balance sheet item are contained in section "9.1 Intangible assets" of the group notes.

2 Accounting treatment of deferred taxes

a) In the consolidated financial statements of the Company deferred tax assets amounting to EUR 268.2 million after netting are reported. Deferred tax assets amounting to EUR 1,103.1 million are recognized before netting with matching deferred tax liabilities. The deferred tax assets were recognized to the extent that the executive directors consider it probable that taxable profit will be available in the foreseeable future which will enable the deductible temporary differences and unused tax losses as well as interest carryforwards to be utilized. For this purpose, insofar as sufficient deferred tax liabilities are not available, future taxable profits are projected on the basis of the adopted business plan. No deferred tax assets were recognized in respect of deductible temporary differences (EUR 88.0 million), tax loss carryforwards (EUR 2,745.9 million) or interest carryforwards (EUR 374.3 million), since it is not probable that they will be utilized for tax purposes by means of offset against taxable profits.

From our point of view, the accounting treatment of deferred taxes was of particular significance in the context of our audit, as it depends to a large extent on the estimates and assumptions made by the executive directors and is therefore subject to uncertainties.

b) As part of our audit, we assessed, among other things, the internal processes and controls for recording tax matters as well as the methodology used for the determination, accounting treatment and measurement of deferred taxes. We also assessed the recoverability of the deferred tax assets relating to deductible temporary differences and unused tax losses and interest carryforwards on the basis of the Company's internal forecasts of its future earnings situation, and the appropriateness of the underlying estimates and assumptions.

Based on our audit procedures, we were able to satisfy ourselves that the estimates and assumptions made by the executive directors are substantiated and sufficiently documented.

c) The Company's disclosures relating to deferred taxes are contained in section "7.10 Income taxes" of the group notes.

3 Obligations arising from tax matters

a) As an international building materials group, HeidelbergCement AG is subject to various local tax regulations and the requirements of the competent tax authorities in the respective countries in which it operates due to its extensive portfolio of equity investments and cross-border service relationships with affiliated companies. The recognition and measurement of current and non-current income tax obligations as well as the determination and disclosure of contingent liabilities are based to a large extent on estimates and assumptions made by the executive directors. Against this background and due to the amount of these material items, these matters were of particular significance in the context of our audit.

b) As part of our audit, we assessed, among other things, the internal processes and controls for recording and assessing tax matters and the presentation of obligations arising from tax matters in the financial statements. In the knowledge that estimated values result in an increased risk of accounting misstatements and that the estimates and assumptions made by the executive directors have a direct and significant impact on consolidated net profit/loss for the year, we assessed the appropriateness of the determination of the obligations and the presentation of tax matters in the financial statements. We also involved our internal specialists from the Tax department in the audit team. With regard to the recognition and measurement of obligations, we in particular inspected the Company's correspondence with the respective tax authorities, critically examined the Company's risk assessments of ongoing tax audits and individual tax matters, and assessed expert opinions obtained from third parties. Furthermore, we also held meetings with the Company's tax department in order to receive updates on current developments with regard to the material tax matters and the reasons for the corresponding estimates. As of the balance sheet date, we also obtained confirmations from external tax advisors that support the executive directors' estimates. Based on our audit procedures, we were able to satisfy ourselves that the estimates and assumptions made by the executive directors are substantiated and sufficiently documented.

c) The Company's disclosures relating to current and non-current income tax liabilities are contained in section "7.10 Income taxes" of the group notes and the disclosures on contingent liabilities in section 11.2 of the group notes, as well as in the paragraph on "Tax risks" in the "Risk and opportunity report" section of the combined management report.

Other Information

The executive directors are responsible for the other information. The other information comprises the following non-audited parts of the combined management report:

- the statement on corporate governance pursuant to §289f HGB and §315d HGB included in section "corporate governance" of the combined management report
- the non-financial statement to comply with §§289b to 289e HGB and with §§315b to 315c HGB included in section "Non-Financial Statement" of the combined management report

The other information comprises further

- the remuneration report pursuant to §162 AktG [Aktiengesetz: German Stock Corporation Act], for which the supervisory board is also responsible
- all remaining parts of the annual report – excluding cross-references to external information – with the exception of the audited consolidated financial statements, the audited combined management report and our auditor's report

Our audit opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information mentioned above and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the combined management report disclosures audited in terms of content or with our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to §315e Abs. 1 HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the combined management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with §317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to §315e Abs. 1 HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.

- Evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Combined Management Report Prepared for Publication Purposes in Accordance with §317 Abs. 3a HGB

Assurance Opinion
We have performed assurance work in accordance with §317 Abs. 3a HGB to obtain reasonable assurance as to whether the rendering of the consolidated financial statements and the combined management report (hereinafter the “ESEF documents”) contained in the electronic file HeidelbergCement_AG_KA_ZLB_ESEF-2022-12-31.zip and prepared for publication purposes complies in all material respects with the requirements of §328 Abs. 1 HGB for the electronic reporting format (“ESEF format”). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the combined management report into the ESEF format and therefore relates neither to the information contained within these renderings nor to any other information contained in the electronic file identified above.

In our opinion, the rendering of the consolidated financial statements and the combined management report contained in the electronic file identified above and prepared for publication purposes complies in all material respects with the requirements of §328 Abs. 1 HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying combined management report for the financial year from 1 January to 31 December 2022 contained in the “Report on the Audit of the Consolidated Financial Statements and on the Combined Management Report” above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the electronic file identified above.

Basis for the Assurance Opinion
We conducted our assurance work on the rendering of the consolidated financial statements and the combined management report contained in the electronic file identified above in accordance with §317 Abs. 3a HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering, of Financial Statements and Management Reports, Prepared for Publication Purposes in Accordance with §317 Abs. 3a HGB (IDW AsS 410 (06.2022)) and the International Standard on Assurance Engagements 3000 (Revised). Our responsibility in accordance therewith is further described in the “Group Auditor's Responsibilities for the Assurance Work on the ESEF Documents” section. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of the Executive Directors and the Supervisory Board for the ESEF Documents
The executive directors of the Company are responsible for the preparation of the ESEF documents including the electronic renderings of the consolidated financial statements and the combined management report in accordance with §328 Abs. 1 Satz 4 Nr. [number] 1 HGB and for the tagging of the consolidated financial statements in accordance with §328 Abs. 1 Satz 4 Nr. 2 HGB.

In addition, the executive directors of the Company are responsible for such internal control as they have considered necessary to enable the preparation of ESEF documents that are free from material non-compliance with the requirements of §328 Abs. 1 HGB for the electronic reporting format, whether due to fraud or error.

The supervisory board is responsible for overseeing the process for preparing the ESEF documents as part of the financial reporting process.

Group Auditor's Responsibilities for the Assurance Work on the ESEF Documents
Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance with the requirements of §328 Abs. 1 HGB, whether due to fraud or error. We exercise professional judgment and maintain professional skepticism throughout the assurance work. We also:

- Identify and assess the risks of material non-compliance with the requirements of §328 Abs. 1 HGB, whether due to fraud or error, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.

- Obtain an understanding of internal control relevant to the assurance work on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.

- Evaluate the technical validity of the ESEF documents, i.e., whether the electronic file containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815 in the version in force at the date of the consolidated financial statements on the technical specification for this electronic file.

- Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited consolidated financial statements and to the audited combined management report.

- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, in the version in force at the date of the consolidated financial statements, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on 12 May 2022. We were engaged by the supervisory board on 1 July 2022. We have been the group auditor of the HeidelbergCement AG, Heidelberg, without interruption since the financial year 2020.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

Reference to an other matter – use of the auditor's report

Our auditor's report must always be read together with the audited consolidated financial statements and the audited combined management report as well as the assured ESEF documents. The consolidated financial statements and the combined management report converted to the ESEF format – including the versions to be filed in the company register – are merely electronic renderings of the audited consolidated financial statements and the audited combined management report and do not take their place. In particular, the "Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Combined Management Report Prepared for Publication Purposes in Accordance with §317 Abs.3a HGB" and our assurance opinion contained therein are to be used solely together with the assured ESEF documents made available in electronic form.

German public auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Thomas Tilgner.

Frankfurt am Main, March 22, 2023

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

(sgd. Dr. Ulrich Störk)	(sgd. Thomas Tilgner)
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

Responsibility statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position, and profit or loss of the Group, and the Group management report, which has been combined with the management report of HeidelbergCement AG, includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Heidelberg, 22 March 2023

HeidelbergCement AG

The Managing Board

Dr Dominik von Achten   René Aldach   Kevin Gluskie

Hakan Gurdal   Ernest Jelito   Dr Nicola Kimm

Dennis Lentz   Jon Morrish   Chris Ward

Remuneration report

Remuneration report

Introduction

The remuneration report sets out the principles and structure of the remuneration of the Managing Board and the Supervisory Board of HeidelbergCement AG. When the remuneration report reports on remuneration at Group level, the brand name “Heidelberg Materials” is used. The remuneration report contains the remuneration granted and owed to the current and former members of the Managing Board and the Supervisory Board in the 2022 financial year. The remuneration granted includes the remuneration components whose underlying (single or multi-year) service or performance period was fully completed in the financial year. The remuneration report was jointly prepared by the Managing Board and the Supervisory Board in accordance with the provisions of section 162 of the German Stock Corporation Act (Aktiengesetz, AktG). In addition, it takes into account the recommendations and suggestions of the German Corporate Governance Code (GCGC) in its version of 28 April 2022.

The remuneration report was also audited with reasonable assurance by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft beyond the requirements of section 162(3) of the AktG. The report on the audit of the remuneration report can be found at the end of the remuneration report.

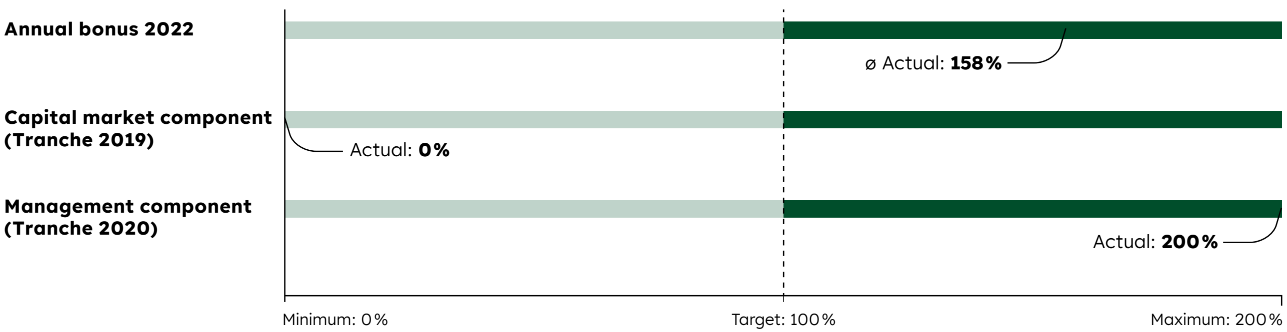
Review of the 2022 financial year

Business development and target achievement in the 2022 financial year

The good business development of Heidelberg Materials in the financial year 2022 despite the challenging conditions is also reflected in the target achievement of the variable elements of the remuneration of the Managing Board. The good result in the profit for the financial year attributable to the shareholders of HeidelbergCement AG adjusted for special effects and the reduction in CO_2 emissions compared with the previous year contributed to the achievement of the objectives for the annual bonus. In addition, initiatives were implemented that served as a basis of the individual target agreements for the members of the Managing Board within the framework of the company strategy.

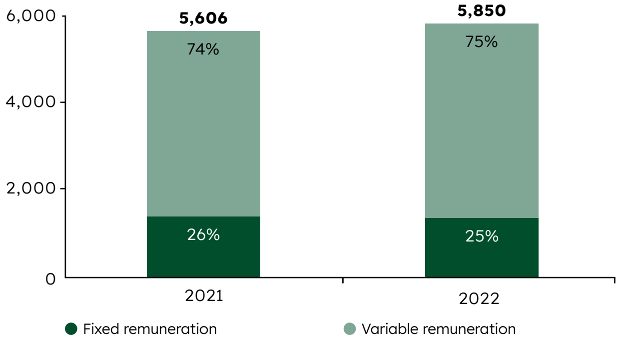
For the management component of the long-term bonus 2020–2022/2023, a strong performance of EBIT and ROIC, adjusted for special effects, led to a target achievement of 200%. However, the total shareholder return (TSR) of the HeidelbergCement AG share after the end of the performance period from 2019 to 2022 was below that of the TSRs of the DAX and the MSCI World Construction Materials Index. Consequently, there is no payment from the capital market component of the long-term bonus 2019–2021/2022.

Target achievement 2022

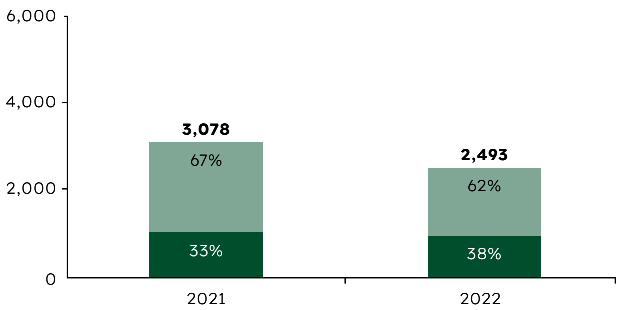


Granted and owed remuneration in the 2022 financial year

Dr Dominik von Achten (€'000s)



Ø Members of the Managing Board[1) 2)] (€'000s)
(only active members throughout the year)



1) Excluding the Chairman of the Managing Board
2) Decrease from 2021 to 2022 as, in contrast to 2021, the 2022 value includes the remuneration of the three members of the Managing Board that were appointed during 2021 and that do not receive a payout from the long-term bonus for 2022.

Changes in the composition of the Supervisory Board

The long-standing Chairman of the Supervisory Board, Mr Fritz-Jürgen Heckmann, and Mr Tobias Merckle resigned their Supervisory Board mandates with effect from the end of the ordinary 2022 annual general meeting and thus stepped down from the Supervisory Board on 12 May 2022. By way of a vote to choose their successors with effect from the end of the annual general meeting on 12 May 2022, Dr Bernd Scheifele and Dr Sopna Sury were elected to the Supervisory Board, and Dr Scheifele was elected by the Supervisory Board as its new chairman at the meeting on 12 May 2022.

2021 remuneration report

In accordance with the requirements of the German Act Implementing the Second Shareholder Rights Directive (Gesetz zur Umsetzung der zweiten Aktionärsrechterichtlinie, ARUG II), the 2021 remuneration report was submitted to the 2022 annual general meeting as part of a consultative vote for approval pursuant to section 120a(4) of the AktG and approved with an acceptance rate of 94.16%. The 2021 remuneration report is available via the following link: **https://www.heidelbergmaterials.com/en/corporate-governance**.

The Managing Board and Supervisory Board are committed to continuously reviewing and further improving the transparency and clarity of remuneration reporting. For that reason, the 2022 remuneration report reports the number of shares held by the members of the Managing Board on an individual basis for the first time, in addition to the degree of target achievement in terms of share ownership.

Remuneration of the Managing Board in the 2022 financial year

Principles of remuneration of the Managing Board

The remuneration system of the Managing Board is aligned with the Group strategy. By selecting appropriate performance criteria for the variable remuneration, incentives are given to implement the Group strategy and to promote the long-term and sustainable development of Heidelberg Materials. Both financial and non-financial performance criteria are used to represent the company's success as a whole. The consideration of ESG targets in the variable remuneration underlines the desire for excellent economic performance as well as environmentally and socially responsible conduct.

The remuneration of the company's Managing Board is based on the principle that members of the Managing Board should be remunerated appropriately according to their performance. With the high proportion of variable and thus performance-based remuneration elements, the Supervisory Board pursues a strict pay-for-performance approach.

The following overview summarises the most important principles of remuneration of the Managing Board. Together, they provide incentives to promote the long-term and sustainable development of Heidelberg Materials.

Fundamentals of the Managing Board remuneration

- Strong **pay for performance orientation** due to high performance-related share of total remuneration
- Alignment of variable remuneration and performance criteria with the long-term **Group strategy**
- **Sustainability** as important component of Managing Board remuneration through **CO_2 component** in variable remuneration
- **Alignment with shareholder interests** through share-based remuneration and obligation for individual investment
- Use of **relative performance assessment** and **prevention of adjustments** of target values or performance criteria during the year
- **Capping of total remuneration** through contractually **fixed payout caps**
- **Malus and clawback rules** for the variable remuneration in total

Procedure for determining and implementing the remuneration system and the amount of Managing Board remuneration

The remuneration system for the members of the Managing Board is determined by the Supervisory Board pursuant to section 87a of the AktG following a recommendation by the Personnel Committee and is then submitted to the annual general meeting for approval.

As a result of the German Act Implementing the Second Shareholder Rights Directive (ARUG II) entering into force on 1 January 2020, the remuneration system of the Managing Board was submitted to the annual general meeting in 2021 after a resolution by the Supervisory Board and was approved by the annual general meeting with an acceptance rate of 92.21%. It has been applicable to all members of the Managing Board since 1 January 2021 and is available via the following link: **https://www.heidelbergmaterials.com/en/corporate-governance**.

As long as no significant changes are made to the remuneration system, it will be submitted to the annual general meeting for approval at least every four years in accordance with the legal requirements. In the event of significant changes to the remuneration system, the adjusted remuneration system will also be submitted to the annual general meeting for approval in the year of its change.

The remuneration of the Managing Board is determined by the Supervisory Board following a recommendation by the Personnel Committee. The Supervisory Board takes into account the responsibility and tasks of the individual members of the Managing Board, their individual performance, the economic situation, as well as the success and future prospects of Heidelberg Materials.

Further development of the remuneration system

The Supervisory Board is committed to continuously improving the remuneration system for the members of the Managing Board in the interests of the shareholders of HeidelbergCement AG. It aims to do so by means of ongoing dialogue with our investors as well as regular analysis of current market practice.

By introducing a CO_2 component to the annual bonus awarded to the members of the Managing Board in 2021, Heidelberg Materials has taken an important step in aligning the remuneration of the Managing Board with a reduction in CO_2 emissions. To lend further support to the achievement of our ambitious climate targets, the Supervisory Board is currently reviewing the inclusion of a CO_2 emissions-related key performance indicator in the long-term bonus. In addition, a fundamental review of the Managing Board remuneration system is planned for the current year, with the aim of submitting a revised remuneration system to the annual general meeting for approval in 2024.

By doing so, the Supervisory Board intends to go beyond the regular, legally mandated four-yearly review of the Managing Board remuneration system in order to take account of the constantly changing requirements of a dynamic market and economic environment.

Review of the appropriate remuneration of the Managing Board

The Supervisory Board regularly reviews the appropriateness of the remuneration of the Managing Board with the support of the Personnel Committee. This includes an external, horizontal comparison with the remuneration of managing boards of comparable companies as well as an internal, vertical comparison of remuneration within Heidelberg Materials. For the horizontal comparison, the selection of companies is based on the size and international activity of Heidelberg Materials, the economic and financial situation, and future prospects.

The companies of the DAX are used for the horizontal comparison. The horizontal comparison serves to verify that the remuneration of the Managing Board is market common.

For the vertical comparison, the remuneration of the Managing Board is compared with the remuneration of top and senior management (upper management) and the remuneration of the total workforce of HeidelbergCement AG, both overall and in terms of development over time.

The following overview shows the development of the target direct remuneration (fixed annual salary, target value of the annual bonus and – if the corresponding employee groups are eligible – the target value of the long-term bonus) in the internal comparison in the period from 2018 to 2022. The vertical comparison of the target remuneration is used when reviewing the appropriateness of the remuneration of the Managing Board pursuant to section 87a of the AktG. The comparative statement pursuant to section 162(1)(2) of the AktG can be found in the **Comparative presentation of the development in remuneration and earnings section**.

Development of the average target direct remuneration1) of the Managing Board and total workforce of HeidelbergCement AG

€'000s	**2018**	Change 2019/2018	**2019**	Change 2020/2019	**2020**	Change 2021/2020	**2021**	Change 2022/2021	**2022**
Managing Board2)	3,036.0	-5.6%	2,866.8	0.1%	2,868.7	-9.1%	2,607.8	-0.7%	2,590.5
Top and senior management3)	207.7	4.6%	217.2	5.9%	230.0	2.7%	236.3	-1.0%	233.9
Total workforce of HeidelbergCement AG4)	61.4	2.0%	62.6	1.2%	63.4	1.4%	64.3	-2.2%	62.9

1) Fixed salary (incl. 13th monthly salary, vacation pay), annual bonus (target 100%) and long-term bonus (target 100%) on a full-time basis.
2) The decrease of 5.6% in the average target direct remuneration of the Managing Board from 2018 to 2019 is due to personnel changes to the Managing Board. The decrease of 9.1% from 2020 to 2021 is mainly due to the new appointment of three Managing Board members, whose target direct remuneration was lower than the average remuneration of the other Managing Board members.
3) Top- and Senior-Management of HeidelbergCement AG excluding the Managing Board. Top Management comprises positions with management responsibility for global and area functions as well as for large- and medium-sized countries. Senior management comprises mostly positions with management responsibility that are not included in Top Management.
4) Including top and senior management, excluding Managing Board.

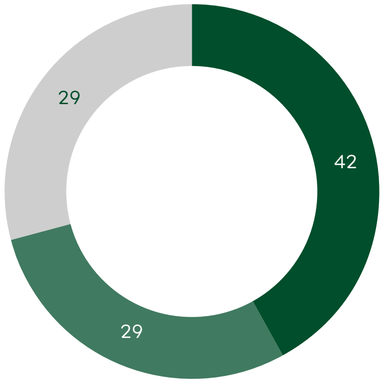
In the 2022 financial year, the ratio of the average remuneration of the Managing Board (including the Chairman of the Managing Board) to the average remuneration of top and senior management was 1:11 (previous year: 1:11), and the ratio to the total workforce of HeidelbergCement AG was 1:41 (previous year: 1:41).

Remuneration structure

Pay for performance and the focus on the sustainable and long-term development of the company are central principles of the remuneration of its Managing Board. With these principles in mind, 71% of the target direct remuneration for the Chairman of the Managing Board and around 67% for the members of the Managing Board consist of variable remuneration elements. The fixed annual salary thus accounts for 29% of the target direct remuneration for the Chairman of the Managing Board and around 33% for the members of the Managing Board.

To ensure the long-term focus of the remuneration of the Managing Board, the share of the long-term bonus exceeds that of the annual bonus within the variable remuneration elements.

Remuneration components of the Chairman of the Managing Board in %



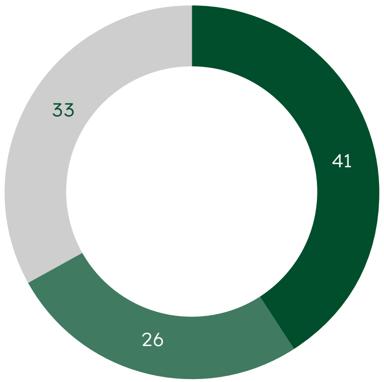
71% Share of variable remuneration
of which 59% long-term bonus and 41% annual bonus

- Long-term bonus
- Annual bonus

29% Share of fixed remuneration

- Fixed remuneration

Remuneration components of the members of the Managing Board[1)] in %



67% Share of variable remuneration
of which 61% long-term bonus and 39% annual bonus

- Long-term bonus
- Annual bonus

33% Share of fixed remuneration

- Fixed remuneration

1) Excluding the Chairman of the Managing Board

Determining the target remuneration

Each member of the Managing Board is contractually promised a target remuneration that lies within the specified remuneration structure. The amount of the target remuneration depends on the responsibilities as well as the relevant experience of and tasks carried out by of the individual member of the Managing Board.

The target remuneration of the members of the Managing Board that were active in the 2022 financial year is as follows:

Target remuneration

	Dr Dominik von Achten Chairman of the Managing Board		**René Aldach** Chief Financial Officer (since 1 September 2021)	
€'000s	2021	**2022**	2021	**2022**
Fixed annual salary	**1,450**	**1,469**	**200**	**600**
Fringe benefits	11	11	5	13
Contribution to private pension (cash allowance)	–		–	–
One-year variable compensation	**1,450**	**1,469**	**160**	**480**
Annual bonus 2021	1,450	–	160	–
Annual bonus 2022	–	1,469	–	480
Multi-year variable compensation	**2,175**	**2,263**	**604**	**750**
Long-term bonus plan 2021–2023/2024	2,175	–	604	–
Management component tranche 2021–2023	1,088	–	292	–
Capital market component tranche 2021–2024	1,088	–	313	–
Long-term bonus plan 2022–2024/2025	–	2,263	–	750
Management component tranche 2022–2024	–	1,130	–	375
Capital market component tranche 2022–2025	–	1,133	–	375
Others	–	–	–	–
Service costs	427	414	83	254
Total compensation	**5,513**	**5,626**	**1,052**	**2,097**

Target remuneration

€'000s	Kevin Gluskie Member of the Managing Board[1]		Hakan Gurdal Member of the Managing Board		Ernest Jelito Member of the Managing Board		Dr Nicola Kimm Member of the Managing Board (since 1 September 2021)	
	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**
Fixed annual salary	**913**	**960**	**764**	**770**	**700**	**719**	**200**	**600**
Fringe benefits	463	502	84	79	27	80	72	83
Contribution to private pension (cash allowance)	–	–	–		–	–	–	–
One-year variable compensation	**730**	**768**	**611**	**616**	**560**	**575**	**160**	**480**
Annual bonus 2021	730	–	611	–	560	–	160	–
Annual bonus 2022	–	768	–	616	–	575	–	480
Multi-year variable compensation	**1,151**	**1,164**	**960**	**963**	**875**	**907**	**604**	**750**
Long-term bonus plan 2021–2023/2024	1,151	–	960	–	875	–	604	–
Management component tranche 2021–2023	575	–	480	–	438	–	292	–
Capital market component tranche 2021–2024	576	–	480	–	438	–	313	–
Long-term bonus plan 2022–2024/2025	–	1,164	–	963	–	907	–	750
Management component tranche 2022–2024	–	582	–	481	–	453	–	375
Capital market component tranche 2022–2025	–	582	–	481	–	454	–	375
Others	–	–	–	–	–	–	–	–
Service costs	843	821	664	638	460	462	83	272
Total compensation	**4,099**	**4,215**	**3,084**	**3,065**	**2,622**	**2,742**	**1,119**	**2,185**

1) Kevin Gluskie receives his remuneration in Australian dollars in accordance with his employment contract. The average exchange rates for 2021 (1.5751 AUD/EUR) and 2022 (1.5169 AUD/EUR) were used for conversion into euros. The closing rates before the start of the performance period (31 December, 2020: 1.5876 AUD/EUR, 31 December, 2021: 1.5647 AUD/EUR) were used to convert the long-term bonus into euros.

Target remuneration

€'000s	Dennis Lentz Member of the Managing Board (since 1 September 2021)[2] 2021	2022	Jon Morrish Member of the Managing Board 2021	2022	Chris Ward Member of the Managing Board[3] 2021	2022
Fixed annual salary	**200**	**600**	**899**	**903**	**710**	**819**
Fringe benefits	25	326	79	97	58	60
Contribution to private pension (cash allowance)	–	–	–	–	356	401
One-year variable compensation	**160**	**480**	**720**	**722**	**568**	**655**
Annual bonus 2021	160	–	720	–	568	–
Annual bonus 2022	–	480	–	722	–	655
Multi-year variable compensation	**604**	**750**	**1,127**	**1,129**	**888**	**957**
Long-term bonus plan 2021–2023/2024	604	–	564	–	888	–
Management component tranche 2021–2023	292	–	564	–	444	–
Capital market component tranche 2021–2024	313	–	–	–	444	–
Long-term bonus plan 2022–2024/2025	–	750	–	1,129	–	957
Management component tranche 2022–2024	–	375	–	564	–	478
Capital market component tranche 2022–2025	–	375	–	564	–	479
Others	–	–	–	–	–	–
Service costs	83	237	600	572	–	–
Total compensation	**443**	**2,393**	**3,425**	**3,423**	**2,580**	**2,892**

2) As of 1 December, 2021, 70% of Mr. Dennis Lentz's fixed annual salary, annual bonus, and long-term bonus were borne by Heidelberg Materials North America (Lehigh Hanson until 1 January 2023). The remaining 30% is borne by HeidelbergCement AG. Until 30 November, 2021, 100% of the remuneration of Mr. Dennis Lentz was borne by HeidelbergCement AG.
3) Chris Ward receives his remuneration in US dollars in accordance with his employment contract. The average exchange rates for 2021 (1.1830 USD/EUR) and 2022 (1.0536 USD/EUR) were used for conversion into euros. The closing rates before the start of the performance period (31 December, 2020: 1.2216 USD/EUR, 31 December, 2021: 1.1370 USD/EUR) were used to convert the long-term bonus into euros.

Compliance with the maximum remuneration

The maximum remuneration (without taking into account fringe benefits and annual service costs of pension commitments) equals the fixed annual salary plus the sum of the individual variable remuneration elements (annual bonus and long-term bonus), which are each limited to twice the target value, plus the discretionary adjustment of a maximum of 15% or, for old contracts of two members of the Managing Board, a maximum of 25%. The maximum remuneration for Ernest Jelito, Jon Morrish, and Chris Ward corresponds to up to 177% of the target direct remuneration, the maximum remuneration for Kevin Gluskie and Hakan Gurdal 184% of the target direct remuneration. Absolute upper limits (excluding fringe benefits and annual service costs of pension commitments) are defined in the Managing Board agreements concluded since the 2020 financial year. A maximum remuneration of €3,245,000 applies for René Aldach, Dr Nicola Kimm, and Dennis Lentz. For the current Chairman of the Managing Board, the maximum remuneration is limited to €8,400,000 based on individual contractual provisions. This corresponds to 157% of the target direct remuneration for the Chairman of the Managing Board and 177% of the target direct remuneration for René Aldach, Dr Nicola Kimm, and Dennis Lentz.

The maximum remuneration of the Chairman of the Managing Board or the upper limits of the Managing Board agreements concluded since the 2020 financial year limit all payments resulting from the commitment for a financial year, regardless of when they are received. A compliance report on the maximum remuneration for the 2022 financial year will therefore be prepared after the tranche of the long-term bonus promised in 2022 has been paid out. Compliance with the maximum remuneration will be reported in the remuneration report for the 2025 financial year after the end of the performance period of the capital market component of the 2022 tranche. If the payout from the long-term bonus results in the maximum remuneration being exceeded, the payment amount will be reduced accordingly to ensure compliance with the maximum remuneration.

Application of the remuneration system in the 2022 financial year

The remuneration system of the Managing Board consists of fixed and variable remuneration elements. The fixed elements consist of the fixed annual salary, the fringe benefits, as well as – if contractually agreed – a cash allowance for private pensions contributions. The performance-related components include the annual bonus and the long-term bonus.

The following is an overview of the arrangement of the remuneration elements and their time horizon:

Remuneration components and time frame, application 2022

Fixed remuneration components	
Fixed annual salary **2022** 2023 2024 2025	**Designed as:** Fixed cash payment relating to the financial year, paid on a monthly basis, cash allowance (only Chris Ward) **Share of target direct remuneration:** Chairman of the Managing Board 29%, members of the Managing Board 33%
Fringe benefits **2022** 2023 2024 2025	**Arrangement:** Especially company cars, driving services, school fees, flight costs, tax consultancy costs, insurance benefits, individually agreed membership fees and secondment-related non-cash benefits
Variable remuneration components	
Annual bonus **2022** 2023 2024 2025	**Designed as:** Target bonus **Performance criteria:** 2/3 Profit/loss for the financial year attributable to HeidelbergCement AG shareholders and CO_2 component, 1/3 individual targets **Target achievement:** 0–200% target achievement **Cap:** 200% of target value **Share of target direct remuneration:** Chairman of the Managing Board 29%, members of the Managing Board 26%
Long-term bonus	**Cap of long-term bonus:** (sum of management component and capital market component) 200% **Share of target direct remuneration:** Chairman of the Managing Board 42%, members of the Managing Board 41%
Management component **2022 2023 2024** 2025	**Designed as:** 50% performance cash plan **Performance period:** Three years **Performance criteria:** 50% EBIT, 50% ROIC **Target achievement:** 0–200% target achievement **Cap:** 200% of target value
Capital market component **2022 2023 2024 2025**	**Designed as:** 50% performance cash plan **Performance period:** Four years **Performance criteria:** 50% relative TSR vs. DAX, 50% relative TSR vs. MSCI World Construction Materials Index **Target achievement:** 0–200% target achievement **Cap:** 400% of target value

In addition to the remuneration elements shown, pension commitments are in place for the members of the Managing Board within the framework of the company pension scheme. Another central element of the Managing Board remuneration system is the mandatory share ownership, which obliges the members of the Managing Board to build up a contractually defined portfolio of HeidelbergCement AG shares during their appointment and to hold them until the end of their appointment.

Fixed remuneration elements

Fixed annual salary

The fixed annual salary is a set cash payment relating to the financial year, which is based on each Managing Board member's area of responsibility and is paid on a monthly basis over the year.

The employment contracts of the members of the Heidelberg Materials Managing Board provide for periodic reviews of the fixed annual salary. In the past financial year, the fixed annual salary of Dr Dominik von Achten, Ernest Jelito, and Chris Ward was reviewed and adjusted. The fixed annual salary of Ernest Jelito and Chris Ward was increased by 4% with effect from 1 May 2022. Taking into account the most recent adjustments to the fixed annual salary in July and September 2019 respectively, this corresponds to an annual rate of increase of 1.4% for Mr Jelito and 1.5% for Mr Ward. The fixed annual salary of Dr von Achten was increased by 5.2% with effect from 1 October 2022. Compared with the most recent adjustment in February 2020, this corresponds to an annual rate of increase of 1.9%. In comparison, the average annual rate of increase for the total workforce of HeidelbergCement AG over the years 2020 to 2022 was over 2.0%. In line with the procedure described in section 1.3, the appropriateness of the remuneration of the Managing Board members concerned was also reviewed in the course of these adjustments.

Fringe benefits

In the 2022 financial year, the taxable fringe benefits of the members of the Managing Board consisted of the provision of company cars and driving services, costs for flights home, tax consulting costs, housing and school benefits, as well as insurance benefits, individually agreed membership fees, and secondment-related benefits. The secondment-related benefits included foreign health insurance as well as relocation and living costs.

No further fringe benefits were granted to the members of the Managing Board in the 2022 financial year.

The members of the Managing Board are covered in the company's existing D&O liability insurance. The agreed deductible corresponds to the minimum deductible pursuant to section 93(2)(3) of the AktG in the respective version.

Variable remuneration elements

The variable remuneration elements include the annual bonus and the long-term bonus. While the annual bonus relates to a financial year, the long-term bonus has a performance period of three years (management component) or four years (capital market component).

For the overall consideration of the company's success, different performance criteria are used within the variable remuneration elements to measure the target achievement. The performance criteria are derived from the Group strategy and are both financial and non-financial. The following table shows the link between performance criteria and Group strategy:

Performance criteria and Group strategy

	Growth and trans-formation	Sustain-ability	Digitali-sation	People and organi-sation	Corporate portfolio	Capital allocation	Value creation
Annual bonus							
Profit for the financial year attributable to HeidelbergCement AG shareholders	●					●	●
CO_2 component	●	●		●	●	●	●
Individual targets	●	●	●	●	●	●	●
Long-term bonus							
EBIT	●					●	●
ROIC	●					●	●
Relative TSR	●					●	●

For the variable remuneration, the Supervisory Board generally has the option of discretionary adjustment of the annual and the long-term bonus in order to account for exceptional circumstances (administrative discretion). For new appointments and reappointments as of 2019, this range of discretion has been reduced to ±15% of the target value of the variable remuneration elements. For Managing Board agreements concluded before 2019, it is ±25% of the respective target value. In the 2022 reporting year, this still applies to Managing Board members Kevin Gluskie and Hakan Gurdal. As in previous years, the Supervisory Board did not make use of the option of discretionary adjustment to the remuneration of the Managing Board in the 2022 financial year.

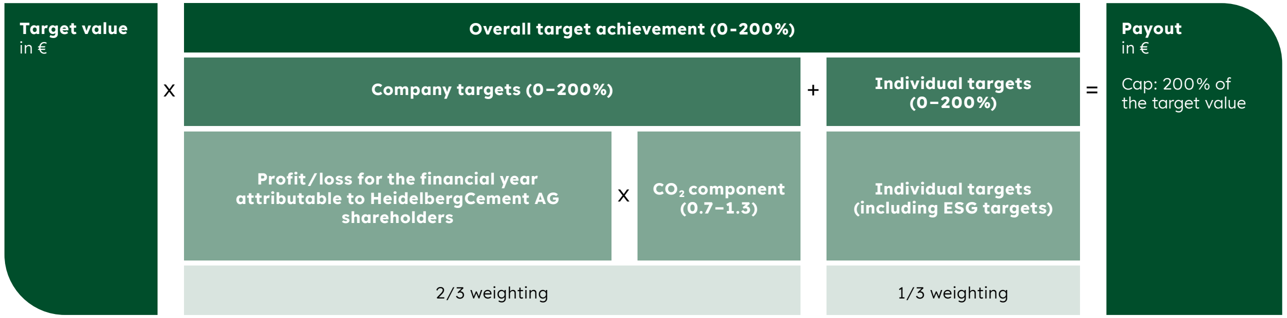
Annual bonus

Fundamentals of the annual bonus

The annual bonus is a variable remuneration element that provides incentives to implement the operational targets in the financial year. At a target achievement rate of 100%, the annual bonus amounts to 100% of the fixed annual salary for the Chairman of the Managing Board and 80% for the members of the Managing Board. The share of the annual bonus in the target direct remuneration amounts to around 29% for the Chairman of the Managing Board and 26% for the members of the Managing Board. The payout amount depends on the overall target achievement, which can range between 0% and 200%.

The annual bonus is paid in cash after the annual general meeting of the following year.

Annual bonus



If the term of office of the Managing Board member begins during the year, the target value will be reduced pro rata temporis.

Performance criteria of the annual bonus

Two thirds of the overall target achievement for the annual bonus is measured against corporate targets (profit for the financial year attributable to the shareholders of HeidelbergCement AG and CO_2 component) and one third against individual targets. The achievement of the corporate targets is calculated by multiplying the target achievement of the performance criterion profit for the financial year attributable to the shareholders of HeidelbergCement AG by the achieved multiplier of the CO_2 component.

At the beginning of the financial year, the Supervisory Board sets the target and threshold values for the individual performance criteria or, in the case of individual targets, the specific targets for the financial year. The Supervisory Board makes sure that these targets are challenging and ambitious. At the end of the financial year, the Supervisory Board determines the extent to which the individual performance criteria have been reached.

Profit for the financial year attributable to the shareholders of HeidelbergCement AG

The profit for the financial year attributable to the shareholders of HeidelbergCement AG, adjusted for special items, is the basis for the first performance criterion. Special items are only taken into account above a value of €20 million.

The profit for the financial year attributable to the shareholders of HeidelbergCement AG reflects Heidelberg Materials' profitability as a basic parameter. Increasing the value of the Group through sustainable and result-oriented growth is intended to guarantee a lasting entrepreneurial capacity to act. In line with its financial strategy, Heidelberg Materials strives to offer an attractive investment opportunity for its shareholders and to pursue a progressive dividend policy. The profit for the financial year attributable to the shareholders of HeidelbergCement AG provides the basis for dividend payments. As a component of the annual bonus, this key figure is therefore intended to provide incentives for profitable management.

For the target achievement calculation of the performance criterion profit for the financial year attributable to the shareholders of HeidelbergCement AG, the Supervisory Board determines a target corridor and the thresholds (lower and upper limit) at the beginning of the respective financial year. Target achievement ranges from 0% to 200%. For the 2022 financial year, the Supervisory Board set a target corridor of €1,526 million to €1,546 million. The target achievement rate is 120% if the actual value of the profit for the financial year attributable to the shareholders of HeidelbergCement AG is within the target corridor. The background to this decision is the unexpectedly sharp rise in energy and raw material costs between the preparation of the operational plan and the targets for 2022. The lower limit was set at €1,286 million and the upper limit at €1,646 million.

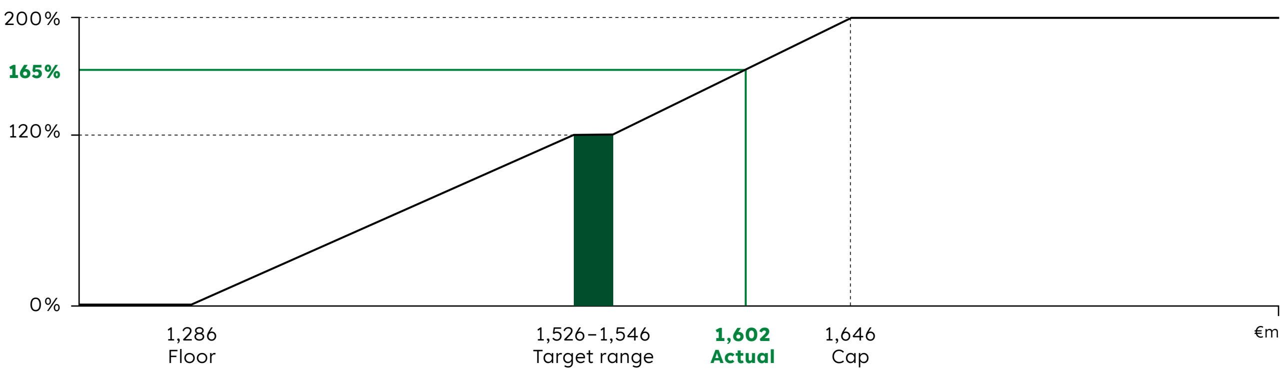
In the 2022 financial year, the actual value of the profit for the financial year attributable to the shareholders of HeidelbergCement AG, including adjustments for special items, amounted to €1,602 million. This results in a target achievement of 165%. The adjustments include:

- profits in the amount of €71 million from the sale of business operations in Spain and of real estate in Sweden and the Netherlands
- impairments in the amount of €-102 million of fixed assets in Russia as a result of the effects of the Russia-Ukraine war
- impairment of the investment in the joint venture Akcansa Cimento Sanayi ve Ticaret A.S. in the amount of €-26 million as a result of the local economic situation and the highly inflationary environment
- expenses of €80 million for the restructuring and closure of sites in connection with the startup of our new cement plant in Mitchell, Indiana, USA
- interest rate effects in the amount of €165 million from discounting of provisions

For the calculation of the profit for the financial year attributable to the shareholders of HeidelbergCement AG, the mentioned adjustments are corrected for the respective tax effects.

The following graph presents the target achievement of the performance criterion profit for the financial year attributable to the shareholders of HeidelbergCement AG:

Profit / loss for the financial year attributable to HeidelbergCement AG shareholders



CO_2 component

The CO_2 component in the annual bonus is intended to provide a significant incentive to achieve the CO_2 reduction targets set as part of the Group strategy. At the same time, the aim is to promote the long-term and sustainable development of Heidelberg Materials by orienting the business model towards resource-efficient production.

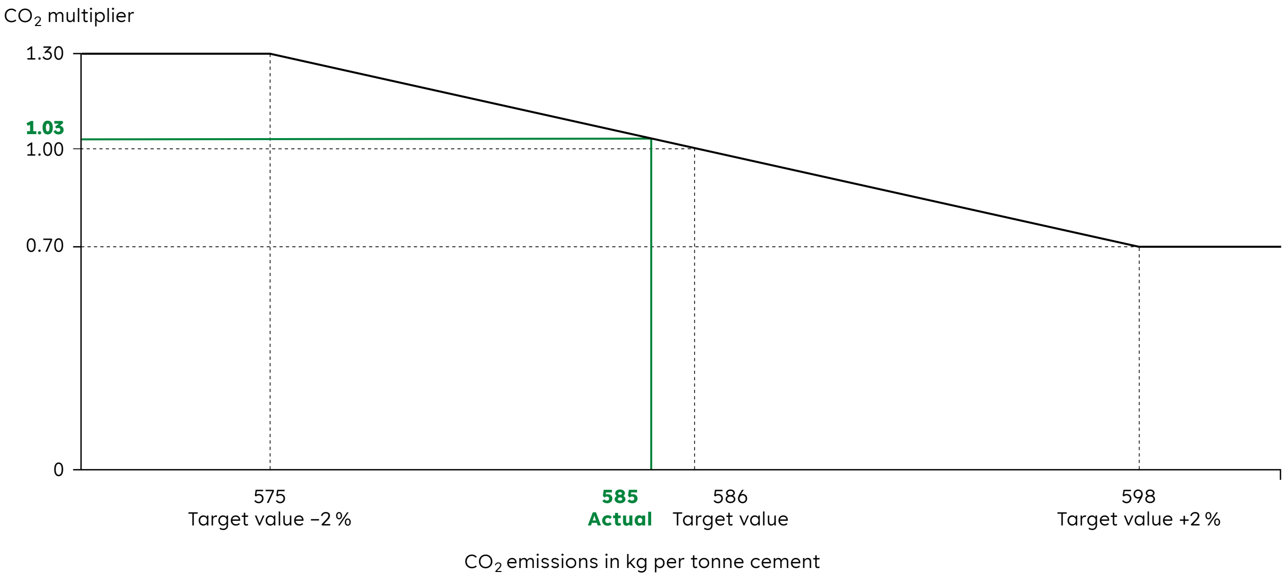
The methodology for calculating the CO_2 component is based on an internal definition for the specific CO_2 emissions per tonne of cement. The internal definition takes into account the CO_2 emissions of the main process steps in cement manufacture. These include the consumption of raw materials and fuel, clinker production, and clinker grinding. The CO_2 emissions of purchased clinker are also factored in. In line with the EU ETS accounting methodology, the biomass content of the alternative fuels used is considered as CO_2 neutral.

To ensure comparability with relevant competitors, Heidelberg Materials reports on CO_2 emissions in accordance with the GCCA standard (specific net CO_2 emissions per tonne of cementitious material) in the **Non-financial statement chapter**. Compared with the internal definition, the net CO_2 emissions calculation considers alternative fuels in their entirety as carbon-neutral rather than just their biogenic content. As a result, the CO_2 emissions according to the internal definition are higher than those calculated in line with the GCCA standard.

The CO_2 component is set up as a multiplier, which can range between 0.7 and 1.3 (CO_2 multiplier). To determine the CO_2 multiplier, the Supervisory Board defines a target for the specific CO_2 emissions per tonne of cement at the beginning of the respective financial year. That target is derived from Heidelberg Materials' CO_2 roadmap and the Group's current CO_2 performance. For the 2022 financial year, the Supervisory Board set a target value of 586 kg of CO_2 per tonne of cement. Overachievement or underachievement of the target value by up to –2% or +2% leads to a linear increase or decrease of the target achievement. This results in a CO_2 multiplier between 1.3 (at –2%: upper limit) and 0.7 (at +2%: lower limit).

In the 2022 financial year, the actual value of CO_2 emissions was 585 kg of CO_2 per tonne of cement. This results in a CO_2 multiplier of 1.03. The following graph shows the target achievement of the CO_2 component:

CO_2 component



Individual targets

The individual targets have a weighting of one third within the annual bonus and may be both financial and non-financial. At the beginning of the financial year, the Supervisory Board defines the targets for each member of the Managing Board. Target achievement ranges from 0% to 200%.

Individual targets were agreed for each member of the Managing Board in 2022 depending on their respective area of responsibility. These targets were based on the objectives of the Group strategy: growth and transformation, sustainability, digital transformation, people and organisation, company portfolio, capital allocation, and value creation. With regard to growth and transformation, revenue growth targets as well as targets for optimising processes and structures in sales, production, and administration were implemented. In terms of company portfolio, the focus was on simplifying the country portfolio and prioritising the strongest market positions. The agreed targets provided incentives to accelerate divestments if the expected returns could not be achieved in the medium term and only to pursue acquisitions if the expected returns are high. As for digital transformation, targets were set to expand the digital customer base (HConnect), enable efficiency gains and cost reductions in production and administration (HProduce), and integrate the participation in Command Alkon into the digitalisation strategy. In order to achieve the company's sustainability goals, targets were set to develop a product labelling system for sustainable products, improve sustainability reporting, and further develop the CO_2 roadmap. Furthermore, targets were set to increase occupational safety as well as to ensure sustainable water management and the protection and preservation of biodiversity.

For 2022, the achievement rate of individual targets for Managing Board members was between 117% and 149%. In many areas, the Managing Board not only achieved the targets, but even exceeded them. In the area of sustainability, a product tagging system for sustainable products was introduced on a global level and the reporting of CO_2 emissions was further improved to meet the auditing requirements for reasonable assurance. In addition, water and biodiversity management plans were introduced across the board at many sites worldwide. With regard to digital transformation, the digital customer base was increased (HConnect), further digital products were introduced (new "Smartrock" sensors) and the company's cyber security was improved. Through the acquisition of several companies (e.g. Mick George, RWG) the strategically important presence in the recycling market was further expanded. In terms of value creation further savings potential was realized through the implementation of the Business Excellence Program and the optimization of administration (e.g. by reducing legal units). The highly successful pricing policy led to sales targets in many regions being overachieved. At the same time, margin targets were missed due to the sharp increase in costs of energy and raw materials. The following table provides an overview of the targets and their achievement per Managing Board member for 2022.

Individual target achievement of Managing Board members

	Individual target	2022
Dr Dominik von Achten	– Global growth targets for Heidelberg Materials – Acceleration of sustainability transformation (focus on sustainable products, CO_2 roadmap, and reporting) – Digital customer growth, IT security, and the digitalisation of administrative processes – Transformation of the Managing Board – Further development of the Heidelberg Materials brand identity	149%
René Aldach	– Improvement of ROIC, free cash flow, and cash conversion rate – Acceleration of sustainability transformation (focus on sustainable financing, CO_2 modelling, and reporting) – Sustainability transparency and data management – Realisation of operational and administrative savings potential – Realisation of savings potential through restructuring	149%
Kevin Gluskie	– Growth and operational targets for Asia-Pacific (APAC) – Focusing portfolio in APAC in accordance with company strategy – Establishment of sustainable products in APAC – Occupational safety, water management, and protection of biodiversity in APAC – Strengthening the digital customer base in APAC – Operational targets for ready-mixed concrete	117%
Hakan Gurdal	– Growth and operational targets for Africa-Eastern Mediterranean Basin (AEM) and Heidelberg Materials Trading – Focusing portfolio in AEM in accordance with company strategy – Establishment of sustainable products in AEM – Occupational safety, water management, and protection of biodiversity in AEM – Digital transformation in AEM – Increase in the use of alternative fuels	134%
Ernest Jelito	– Growth and operational targets for Northern and Eastern Europe-Central Asia (NEECA) – Focusing portfolio in NEECA in accordance with company strategy – Establishment of sustainable products in NEECA – Occupational safety, water management, and protection of biodiversity in NEECA – Strengthening the digital customer base in NEECA – Expansion of clinker production and digital process optimisation	130%
Dr Nicola Kimm	– Development and establishment of sustainable products – Sustainability reporting and rating improvement – Updating of the CO_2 roadmap and implementation of sustainability projects (e.g. CCUS, circular economy, etc.) – Occupational safety, water management, and protection of biodiversity	128%
Dennis Lentz	– Strengthening the digital customer base – IT security and the digitalisation of administrative processes – Process optimisation through digital transformation – Command Alkon growth targets	138%
Jon Morrish	– Growth and operational targets for Western and Southern Europe (WSE) – Focusing portfolio in WSE in accordance with company strategy – Occupational safety, water management, and protection of biodiversity in WSE – Establishment of sustainable products in WSE – Strengthening the digital customer base and digital process optimisation in WSE – Development and communication of the new Heidelberg Materials brand identity	131%
Chris Ward	– Growth and operational targets for North America (NAM) and aggregates – Focusing portfolio in NAM in accordance with company strategy – Occupational safety, water management, and protection of biodiversity in NAM – Establishment of sustainable products in NAM – Strengthening the digital customer base in NAM and Command Alkon growth targets	118%

Annual bonus 2022 – overall target achievement and payouts

The following table shows the overall target achievement and the resulting payout amount per member of the Managing Board for the annual bonus 2022:

Overall target achievement Annual bonus 2022

		Target achievement					
		Company targets (2/3)			Individual targets (1/3)		
€'000s	Target value	Profit/loss for the financial year attributable to HeidelbergCement AG shareholders	CO_2 multiplier	Total		**Total**	**Payout**
Dr Dominik von Achten	1,469	165%	1.03	170%	149%	163%	2,394
René Aldach	480				149%	163%	782
Kevin Gluskie	768				117%	152%	1,170
Hakan Gurdal	616				134%	158%	973
Ernest Jelito	575				130%	157%	901
Dr Nicola Kimm	480				128%	156%	749
Dennis Lentz	480				138%	159%	765
Jon Morrish	722				131%	157%	1,134
Chris Ward	655				118%	153%	1,000
Total	**6,245**						**9,868**

In the case of a start or termination of the Managing Board membership during the year, the target achievement is applied to the target value reduced pro rata temporis in order to calculate the payout amount (this does not apply to any Managing Board member for the financial year 2022). The 2022 annual bonus is paid after the annual general meeting in 2023.

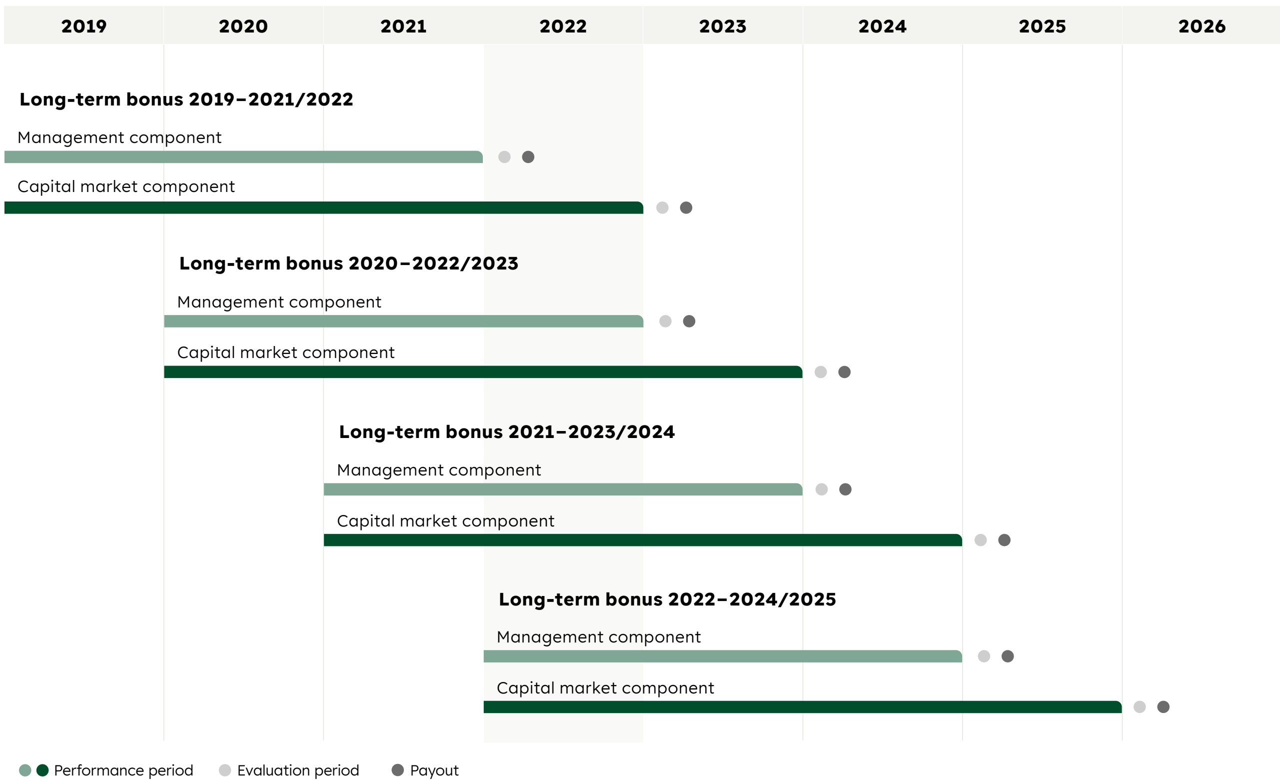
Long-term bonus

The long-term bonus is a variable remuneration element based on the company's long term performance and is allocated in annual tranches. If 100% of the target is achieved, it amounts to 150% of the fixed annual salary for the Chairman of the Managing Board and 125% of the fixed annual salary for the members of the Managing Board.

At the beginning of the 2022 financial year, the long-term bonus 2022–2024/2025 was allocated. The first allocation was made in the 2011 financial year.

The following illustration gives an overview of the payout scheme of the long-term bonus tranches in relation to the 2022 financial year and the still outstanding tranches:

Payment system for the long-term bonus



The long-term bonus consists of two components.

Management component

The management component is structured as a performance cash plan. It has a three-year performance period and considers internal added value as measured by the equally weighted performance criteria earnings before interest and taxes (EBIT) and return on invested capital (ROIC). The target value for the management component is 50% of the total target value for the long-term bonus. At the end of the performance period, the Supervisory Board determines the target achievement for the management component. The overall target achievement can range between 0% and 200%.

Capital market component

The capital market component is structured as a performance share plan. It is based on virtual shares, so-called performance share units (PSUs), thus establishing a direct link to the development of the HeidelbergCement AG share price and strengthening the alignment between the interests of the Managing Board and the shareholders. The capital market component has a four-year performance period and considers the external added value as measured by the performance criterion TSR compared with the relevant capital market indices. For the capital market component, the first step is to determine the number of PSUs to be provisionally allocated. The number of PSUs is calculated on the basis of 50% of the overall target value for the long-term bonus divided by the reference price of the HeidelbergCement AG share at the start of the performance period (allocation price). The allocation price is the average of the daily closing prices of the HeidelbergCement AG share on the Frankfurt Stock Exchange Xetra trading system in the three months prior to the start of the performance period.

The allocation price for the long-term bonus 2022–2024/2025 and the 2022 tranche of the capital market component is €62.56.

After the four-year performance period, the target achievement is determined for the performance criterion of the capital market component. The target achievement can range between 0% and 200%. The final number of PSUs is calculated by multiplying the provisionally allocated number of PSUs with the target achievement. The resulting number of PSUs is then multiplied with the current reference price of the HeidelbergCement AG share at the end of the performance period (closing price), adjusted for the notionally reinvested dividend payments and for changes in capital. The closing price represents the average of the daily closing prices of the HeidelbergCement AG share on the Frankfurt Stock Exchange Xetra trading system in the three months prior to the start of the performance period. The increase in value per PSU is limited to 250% of the allocation price.

The following table summarises the individual target values per Managing Board member, the allocation price, the number of provisionally allocated PSUs, and the maximum possible number of PSUs at the end of the performance period for the long-term bonus 2022–2024/2025:

Allocation long-term bonus 2022–2024/2025

	Management component	Capital market component				
€'000s	Target value	Target value	Allocation price in €	Number of provisionally allocated PSUs	Maximum possible number of PSUs	**Overall target value**
Dr Dominik von Achten[1]	1,130	1,133		18,114	36,229	2,263
René Aldach	375	375		5,994	11,988	750
Kevin Gluskie	582	582		9,295	18,590	1,163
Hakan Gurdal	481	481		7,693	15,385	963
Ernest Jelito[2]	453	454	62.56	7,250	14,500	907
Dr Nicola Kimm	375	375		5,994	11,988	750
Dennis Lentz	375	375		5,994	11,988	750
Jon Morrish	564	564		9,021	18,043	1,129
Chris Ward[2]	478	479		7,652	15,304	957
Total	**4,813**	**4,818**		**77,008**	**154,016**	**9,631**

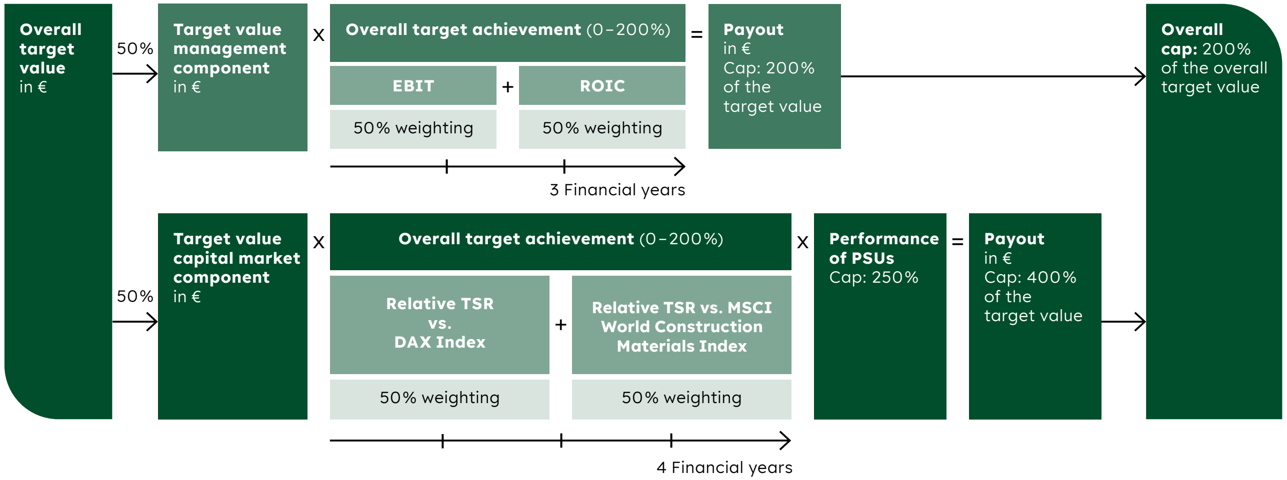
1) Calculation basis: daily pro rata calculation from 1 January 2022 to 30 September 2022 and from 1 October 2022 over the term of 3 and 4 years, respectively.
2) Calculation basis: daily pro rata calculation from 1 January 2022 to 30 April 2022 and from 1 May 2022 over the term of 3 and 4 years, respectively.

If the term of office of the Managing Board member begins or ends during the year, the target value for both the management component and the capital market component will be calculated to the day pro rata temporis based on the period from the date of appointment to the end of the respective performance period or from the beginning of the performance period to the respective exit date in relation to the total duration of the performance period.

The management component is paid in cash after the annual general meeting of the year following the three-year performance period and is limited to 200% of the target value. The capital market component is paid in cash after the annual general meeting of the year after the four-year performance period and is limited to 400% of the target value.

Payouts from the overall long-term bonus are limited to a maximum of 200% of the contractually agreed target value, where the amount of the capital market component can offset the amount of the management component payout.

Long-term bonus



Performance criteria of the management component

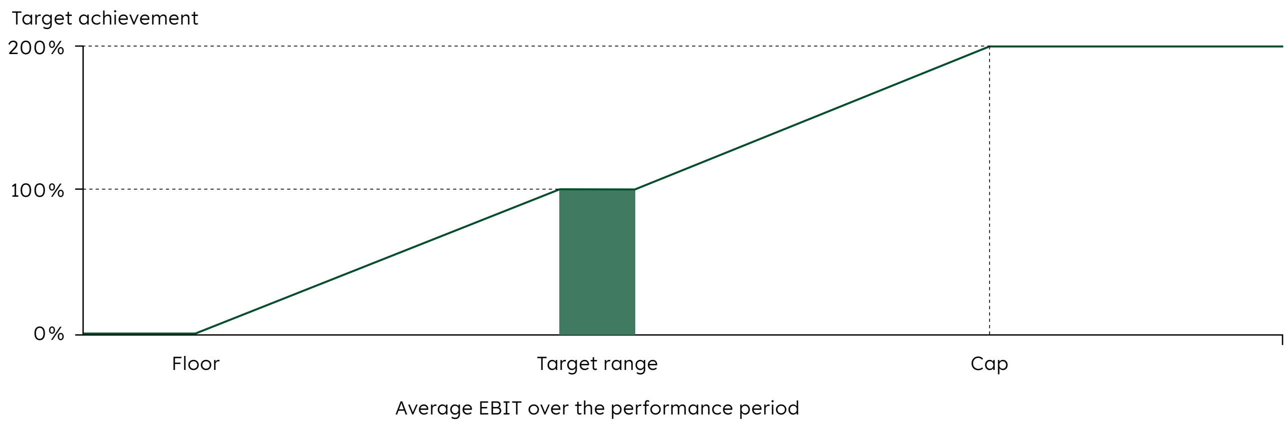
The overall target achievement for the management component is determined on the basis of the equally weighted performance criteria adjusted EBIT and ROIC.

EBIT
The basis for the performance criterion is the EBIT, which is adjusted for one-time special effects that could not be foreseen at the time when the operating plan and the targets were set. As for the calculation of the profit for the financial year attributable to the shareholders of HeidelbergCement AG, only special items above a threshold of €20 million are taken into account.

EBIT is a measure of profitability and reflects the economic strength of Heidelberg Materials. Combined with the consideration of the profit for the financial year attributable to the shareholders of HeidelbergCement AG in the annual bonus, incentives for profitable growth are thus provided in both the short-term and long-term variable remuneration elements.

At the beginning of each tranche, the Supervisory Board determines a target corridor, which is derived from the Group's three-year operating plan, as well as the thresholds (upper and lower limit). The calculation of the target achievement at the end of the performance period is based on the comparison of the average EBIT over the three-year performance period with the specified target corridor. The target achievement can range from 0% to 200%.

Performance criterion EBIT

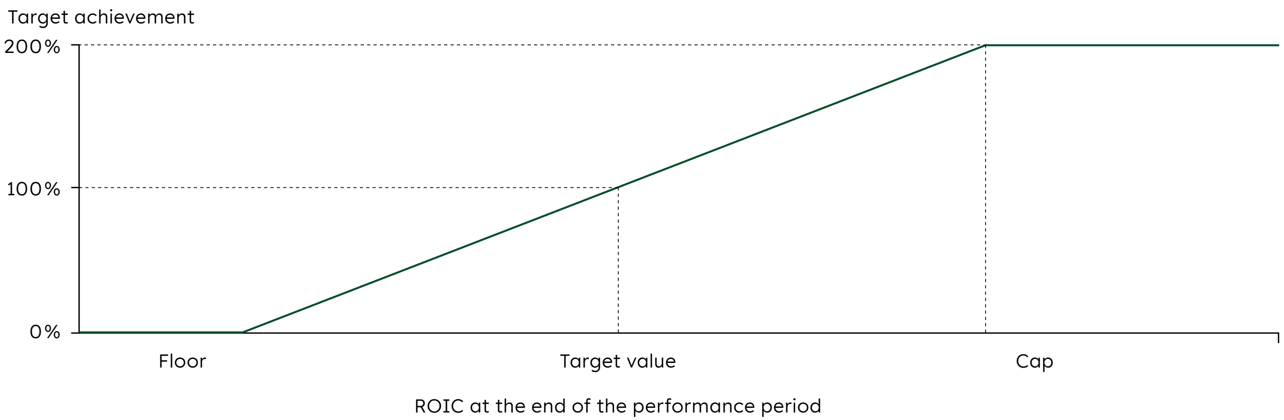


For the performance criterion EBIT, the defined target corridor, the thresholds (upper and lower limit), as well as the resulting target achievement and the adjustments made for the calculation of target achievement are disclosed in the remuneration report after the performance period has ended.

ROIC
The performance criterion is based on ROIC. Starting with the 2021 tranche of the long-term bonus, ROIC is calculated as the ratio between the result from current operations minus current tax expense (adjusted for impairments) and the average invested capital (average of the opening and closing balance of the respective financial year). For tranches of the long-term bonus that were awarded before 2021, a different calculation methodology applies, which is described in the **Completed tranches at the end of the 2022 financial year section**. ROIC is one of Heidelberg Materials' most important financial performance indicators. The inclusion of ROIC as a performance criterion in the long-term bonus therefore provides further incentives to increase capital efficiency in line with the Group strategy.

The ROIC target achievement is measured by comparing the target value set at the beginning of the respective tranche with the actual value at the end of the performance period. The lower and upper limits of the target achievement curve are defined depending on the target value. The target value set by the Supervisory Board is derived from the company's relevant three-year operating plan. The target achievement can range from 0% to 200%.

Performance criterion ROIC



For the performance criterion ROIC, the defined target value, the thresholds (upper and lower limit), as well as the resulting target achievement and the adjustments made for the calculation of target achievement are disclosed in the remuneration report after the respective the performance period has ended.

Performance criterion of the capital market component

For the capital market component, the target achievement is measured using the performance criterion relative TSR.

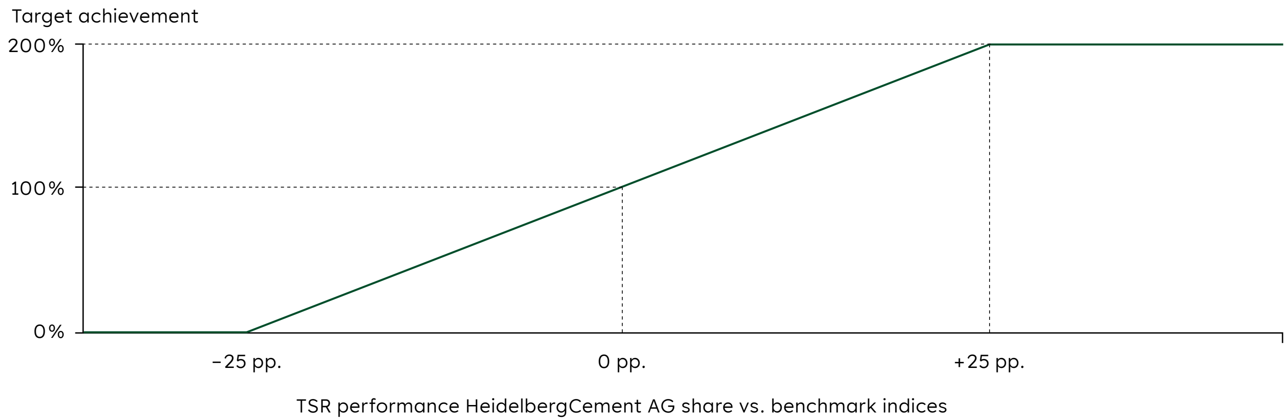
Relative TSR
The TSR performance is determined by comparing the performance of the HeidelbergCement AG share (calculated as percentage increase in share value taking into account reinvested dividend payments and adjustments for capital measures) with the performance of the two capital market indices DAX and MSCI World Construction Materials Index.

Relative TSR represents a capital market-oriented performance criterion that provides an incentive for the sustainable and long-term outperformance of the peer groups and is thus in line with Heidelberg Materials' target of offering shareholders an attractive investment opportunity. Furthermore, the relative TSR adds a relative performance metric to the long-term bonus.

The target achievement range for determining the final number of PSUs at the end of the performance period is 0% to 200%. Target achievement is measured by the change in TSR based on a four-year reference period prior to the start of the plan. The development of the TSR of the HeidelbergCement AG share is determined and compared with the respective development of the benchmark indices. Target achievement is then calculated on the basis of the average relative TSR.

The target achievement curve for the relative TSR is as follows:

Relative TSR



Completed tranches at the end of the 2022 financial year

At the end of the 2022 financial year, the 2020 tranche of the management component (long-term bonus 2020–2022/2023) and the 2019 tranche of the capital market component (long-term bonus 2019–2021/2022) were completed. The structure of the two completed tranches largely corresponds to the tranches of the long-term bonus allocated in the 2022 financial year.

2020 tranche of the management component

The target achievement for the 2020 tranche of the management component was determined on the basis of the equally weighted performance criteria EBIT and ROIC. Deviating from the calculation methodology applied since the 2021 tranche and described in the previous section, ROIC for the 2020 tranche is measured on the basis of the result from current operations less taxes paid divided by invested capital in the last year of the performance period adjusted for currency translation effects. Taxes paid correspond to taxes paid as reported in the statement of cash flows. Invested capital comprises equity and reported net debt less puttable minorities at the end of the performance period. Invested capital is adjusted for the currency translation differences recognised in equity at the end of the performance period and at the time of the target setting.

Before the start of the tranche, a target corridor of €2,210 million to €2,310 million corresponding to a target achievement of 100% was set for EBIT. The actual EBIT value, which is calculated as the average EBIT over the three years of the performance period, was €2,429 million (2020: €2,302 million, 2021: €2,565 million, 2022: €2,419 million). The individual annual figures are adjusted for the special items that were also taken into account when determining the Group share of profit for the purposes of the annual bonus, insofar as they have an impact on EBIT. In previous years, these were primarily restructuring expenses, impairments, and gains on disposals. For 2022 these are listed in the **Annual bonus section** and include the gains from the disposal of business operations in Spain and of real estate in Sweden and the Netherlands, impairment losses in Russia and on the investment in the joint venture Akcansa Cimento Sanayi ve Ticaret A.S., as well as restructuring expenses in North America. This results in a target achievement for EBIT of 200%.

Before the start of the tranche, a target value of 6.70% was set for ROIC, for which a target achievement of 100% could be reached. The actual ROIC value was 7.97% corresponding to a target achievement of 200%.

Based on the target achievements in the two performance criteria, the overall target achievement for the 2020 tranche of the management component is 200%.

The table summarises the target values, thresholds (upper and lower limit), as well as actual values and target achievements per performance criterion:

Target achievement in management component of long-term bonus 2020–2022/2023

		Target achievement curve				
	Weighting	Floor	Target corridor	Cap	Actual value	**Target achievement**
EBIT	50%	€m 2,110	€m 2,210–2,310	€m 2,410	€m 2,429	200%
ROIC	50%	5.70%	6.70%	7.70%	7.97%	200%
Total	**100%**					**200%**

The following table shows the payout amount per member of the Managing Board resulting from the overall target achievement for the 2020 tranche of the management component:

Summary of the management component of long-term bonus 2020–2022/2023

€ '000s	Target value	Target achievement EBIT	Target achievement ROIC	Target achievement Total	Payout
Dr Dominik von Achten	988	200%	200%	200%	1,976
Kevin Gluskie	548				1,096
Hakan Gurdal	438				875
Ernest Jelito	438				875
Jon Morrish	538				1,075
Chris Ward	468				936
Total	**3,417**				**6,833**

The payment from the 2020 tranche of the management component will be made following the annual general meeting in 2023.

2019 tranche of the capital market component

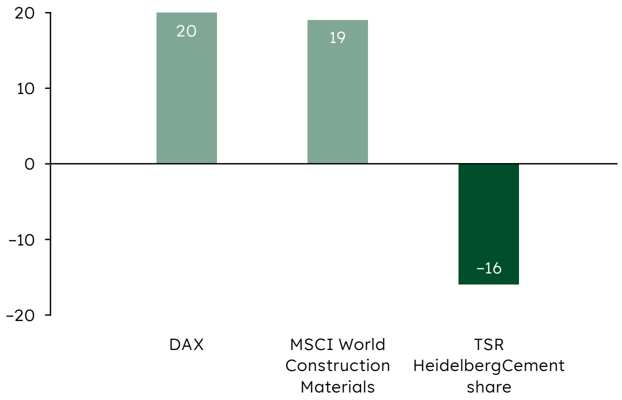
The target achievement for the 2019 tranche of the capital market component was measured analogously to the tranche allocated in the 2022 financial year on the basis of the performance criterion relative TSR.

While the DAX recorded an increase of 20.3% over the four-year performance period compared with the reference period and the MSCI World Construction Materials Index an increase of 18.9%, the TSR of the HeidelbergCement AG share was –16.2% at the end of the performance period. This results in a difference of –36.5 percentage points compared with the DAX and a difference of –35.1 percentage points compared with the MSCI World Construction Materials Index. The average difference amounts to –36 percentage points.

The overall target achievement rate for the relative TSR is therefore 0% for the 2019 tranche of the capital market component.

The allocation price for determining the number of provisionally allocated PSUs at the start of the tranche was €58.78. The closing price, including notionally reinvested dividends and adjusted for changes in capital, was €54.78 at the end of the performance period. This corresponds to a development of –6.8% over the performance period.

Performance of the benchmark indices and the TSR of the HeidelbergCement share in %



Development of the HeidelbergCement share in €

The following table describes the main elements of the 2018 tranche of the capital market component per member of the Managing Board:

Summary of the capital market component of the long-term bonus 2019–2021/2022

€'000s	Target value	Allocation price in €	Number of provisionally allocated PSUs	Target achievement relative TSR	Final number of PSUs	Closing price in €	Payout
Dr Dominik von Achten	688	58.78	11,696	0.00%	0	54.76	0
Kevin Gluskie	538		9,150		0		0
Hakan Gurdal	438		7,443		0		0
Ernest Jelito	383		6,521		0		0
Jon Morrish	538		9,144		0		0
Chris Ward	382		6,493		0		0
Total	**2,965**		**50,447**		**0**		**0**

Pension commitment

Defined contribution commitment

Members of the Managing Board who have been newly appointed or reappointed since 2019 are granted a defined contribution commitment, based on which the company will pay the member an annual pension contribution. The amount of this contribution is reviewed on a regular basis. In the framework of a capital market-oriented model, these contributions are used to acquire fund shares that are credited to a pension account. The Managing Board member is entitled to a one-off capital payment in the amount of the value of the pension account at the time of benefit commencement. Alternatively, the Managing Board member can choose to receive an annuity based on the accumulated pension capital. The pension contributions accumulated over the duration of the commitment are guaranteed. If the member of the Managing Board dies, the pension entitlement shall pass to the widow or widower or to the children of the Managing Board member. Dr Dominik von Achten, René Aldach, Ernest Jelito, Dr Nicola Kimm, and Dennis Lentz currently have a defined contribution commitment.

As part of the defined contribution commitment, an annual cash allowance is provided to Chris Ward, that can be used to finance a private pension plan.

Defined benefit commitment prior to 2019 (old commitment)

In addition to his defined contribution commitment, Dr Dominik von Achten has a defined benefit commitment in the form of an annual retirement pension for the defined benefit obligations earned until his reappointment in 2020.

The retirement agreements of the members of the Managing Board appointed between 2016 and 2018 contain the commitment of an annual retirement pension in the form of a percentage of the pensionable income. Kevin Gluskie, Hakan Gurdal, and Jon Morrish currently possess a defined benefit commitment. The percentage can equal up to 4% per commenced year of service; the maximum percentage accumulated is 40% of the pensionable income. The pensionable income is agreed individually for each member of the Managing Board.

Upon reappointment, existing defined benefit commitments are continued with the value of the pension benefit at the reappointment date. If the Supervisory Board agrees additional retirement benefit commitments, these will be covered by a defined contribution commitment. The Supervisory Board reserves the right to agree an adjustment of the retirement benefit, including within the existing system, in the event of a contract extension when an employee is close to retirement age.

In addition to the defined benefit commitment and defined contribution commitment, a transitional allowance equal to a monthly salary will be paid for a period of six months upon termination of the contract and benefit commencement.

Pension payments
The payment of the pension commitment is made monthly either:

- After leaving the company upon reaching retirement age (pension benefit paid on individual basis between the 62nd and 63rd year of age) or

- In the event of premature termination of contract for reasons for which the Managing Board member is not responsible, provided that he or she has reached the age of 60 at the time of termination of contract or

- Due to permanent disability owing to illness

Survivor pension benefit
The retirement agreements include a survivor pension benefit. If a member of the Managing Board dies, the widow or widower and the dependent children receive a widow's, widower's or orphan's pension. In the case of defined benefit commitments, the widow's pension is 60% and the orphan's pension 10% of the deceased's pension benefit as long as a widow's pension is being paid at the same time. If a widow's pension is not being paid at the same time, the orphan's pension is 20% of the deceased's pension benefit. In the case of defined contribution commitments, the full entitlement to the pension credit shall pass to the widow or widower and the surviving children.

Service costs and present values of pension obligations
The service costs and the present values of the existing pension obligations as at 31 December 2022 are presented in the following table in consolidated form per member of the Managing Board:

Pension commitments (IAS 19)

	Service costs		Present value of the pension obligations	
€'000s	2021	2022	2021	2022
Dr Dominik von Achten	427	414	13,859	9,357
René Aldach	83	254	88	306
Kevin Gluskie	843	821	5,171	3,709
Hakan Gurdal	664	638	4,019	2,697
Ernest Jelito	460	462	1,175	1,609
Dr Nicola Kimm	83	272	93	313
Dennis Lentz	83	237	86	306
Jon Morrish	600	572	3,606	2,280
Total	**4,205**	**3,668**	**40,653**	**20,576**

In addition to the amount of the agreed benefit and the agreed contribution, both the service costs and the present values of the pension obligations depend in a substantial way on various actuarial parameters, such as the age of the individual member of the Managing Board and the currently prevailing interest rate level. The sharp rise in interest rates over the past year led to a smaller increase in the present values of pension obligations than in previous years and, as can be seen in the table, even to a decrease in individual cases.

Share ownership

To further harmonise the interests of the Managing Board and the shareholders, the Supervisory Board has adopted guidelines for share ownership. The members of the Managing Board are obliged to acquire a contractually defined number of Heidelberg Cement AG shares and to hold them for the duration of their appointment as a member of the Managing Board.

The share ownership is a key element in creating a strong link between the interests of the Managing Board and the shareholders and at the same time aligning the remuneration of the Managing Board even further with the long-term success of Heidelberg Materials. The number of HeidelbergCement AG shares to be held equals 30,000 for the Chairman of the Managing Board and 15,000 for each of the members of the Managing Board. Before 2019, the obligation for members of the Managing Board equalled 10,000 HeidelbergCement AG shares, which is why contracts concluded prior to this date stipulate an obligation in this amount. In the event of a reappointment, the required number of 15,000 shares also applies to these members of the Managing Board. In order to fulfil the share ownership, provided that the investment target has not yet been achieved at the relevant payout date, half of the payment amounts from the long-term bonus must be used to acquire shares of the company until the complete share ownership requirement has been met. Accumulating the share ownership can therefore take several years. HeidelbergCement shares that are already held by members of the Managing Board are taken into account for the share ownership. The members of the Managing Board have confirmed to the Supervisory Board that sufficient shares were acquired in accordance with the respective obligation.

The following table provides an overview of the share ownership status per member of the Managing Board:

Share ownership as at 31 December 2022 of current members of the Managing Board

Piece	Target	Status	Shares held as of 31 December 2022	in % of target
Dr Dominik von Achten	30,000	Investment target fully achieved	35,300	118%
René Aldach[1]	15,000	In accumulation phase	4,000	27%
Kevin Gluskie	10,000	Investment target fully achieved	15,000	150%
Hakan Gurdal	10,000	Investment target fully achieved	10,000	100%
Ernest Jelito	15,000	In accumulation phase	10,644	71%
Dr Nicola Kimm[1]	15,000	In accumulation phase	722	5%
Dennis Lentz[1]	15,000	In accumulation phase	2,000	13%
Jon Morrish	15,000	Investment target fully achieved	15,004	100%
Chris Ward	15,000	Investment target fully achieved	15,000	100%

1) Currently, no payments have been made from a long-term bonus granted during Managing Board membership. According to the Managing Board contract, there has therefore been no obligation to purchase shares to date.

Malus and clawback rules

The variable remuneration elements include malus and clawback rules. These give the Supervisory Board the option to reduce part or all of the variable remuneration elements that have not yet been paid out (malus) or to reclaim variable remuneration elements that have already been paid out (clawback) in case of breaches of essential duties of diligence. The malus and clawback rules apply to both the annual bonus and the long-term bonus.

In the 2022 financial year, the Supervisory Board did not see any reason to apply malus and clawback rules, which is why the Supervisory Board did not reduce or reclaim variable remuneration.

Disclosure of benefits in the event of departure

Departure conditions

In the event of the early termination of a Managing Board membership without serious cause, the payout from the annual bonus and the long-term bonus shall be made in accordance with the contractually stipulated due dates and conditions. There is no early settlement or payout. The annual bonus and long-term bonus shall be reduced pro rata temporis in case of a departure during the financial year in which the annual bonus or long-term bonus is allocated.

In the event of the early termination of a Managing Board membership for serious cause before the end of the performance period, the claims to the annual bonus and long-term bonus shall be forfeited.

Severance pay cap

In the event of the early termination of a Managing Board membership without serious cause, care is taken in accordance with the recommendations of the GCGC when concluding new Managing Board contracts or extending existing Managing Board contracts to ensure that payments to a Managing Board member, including fringe benefits, do not exceed the value of two annual remunerations and do not compensate more than the remaining term of the employment contract (severance pay cap). The severance pay cap is calculated based on the amount of the total remuneration for the past financial year and, if applicable, also based on the amount of the expected total remuneration for the current financial year. A severance pay cap has been agreed with all current members of the Managing Board.

Change of control clause
Managing Board contracts concluded before the publication of the version of the GCGC of 16 December 2019 are governed by the version of 7 February 2017, according to which a commitment to benefits in the event of the early termination of the Managing Board membership as a result of a change of control should not exceed 150% of the severance pay cap.

Managing Board contracts concluded since the 2020 financial year are governed by the proposal of the GCGC in force since 2019, according to which change of control clauses are no longer to be part of Managing Board contracts. The contracts of René Aldach, Dr Nicola Kimm, and Dennis Lentz therefore do not contain any change of control clauses.

Post-contractual non-compete clause
A post-contractual non-compete clause applies to the members of the Managing Board, according to which they are prohibited for a period of two years after the termination of the employment contract from working for a company that is in direct or indirect competition with Heidelberg Materials or another Heidelberg Materials company, either independently or in an employed capacity or in any other way. Moreover, the members of the Managing Board are prohibited from establishing, acquiring, or directly or indirectly participating in such a competing company for the duration of the post-contractual non-compete clause. For the duration of the post-contractual non-compete clause, the member of the Managing Board receives the last fixed annual salary in equal monthly instalments (waiting allowance). The waiting allowance shall be reduced to the extent that the member of the Managing Board receives benefits from the pension agreement after leaving the company. HeidelbergCement AG may waive the post-contractual non-compete clause before the termination of the employment contract.

In 2022, a waiting allowance of €60,000 was paid to Dr Bernd Scheifele. Dr Lorenz Näger received a waiting allowance of €746,000.

Disclosure of benefits from third parties

For the 2022 financial year, the members of the Managing Board have not received any benefits from third parties in connection with their Managing Board activities.

Remuneration granted and owed in the 2022 financial year

Remuneration of active members of the Managing Board in the 2022 financial year
The remuneration granted and owed to the individual members of the Managing Board in the 2022 financial year pursuant to section 162 of the AktG is presented in the following.

The remuneration granted includes the remuneration components whose underlying (single or multi-year) service or performance period was fully completed in the financial year, even if payment does not occur until the following financial year. With the exception of the lack of including the service costs of the pension commitments, this reporting logic corresponds to the previous remuneration reporting of HeidelbergCement AG, in the table Allocations according to GCGC in the version of the GCGC of 7 February 2017.

The remuneration granted and owed in the 2022 financial year pursuant to section 162 of the AktG consists of the following remuneration elements:

- The fixed annual salary paid in the 2022 financial year
- The fringe benefits accrued in the 2022 financial year
- The cash allowance paid for the 2022 financial year in the case of Chris Ward
- The annual bonus determined for the 2022 financial year (annual bonus 2022), which is paid in the 2023 financial year
- The 2020 tranche of the management component, which was completed at the end of the 2022 financial year and is paid in the 2023 financial year
- The 2019 tranche of the capital market component, which was completed at the end of the 2022 financial year and is paid in the 2023 financial year

Furthermore, the service costs of the pension commitments in accordance with IAS 19 for the 2022 financial year is shown in the tables as part of the Managing Board remuneration.

In addition to the absolute remuneration amounts, the tables also contain the relative proportion of the individual remuneration elements within the total remuneration granted and owed.

Granted and owed remuneration pursuant to section 162 of the AktG

	Dr Dominik von Achten Chairman of the Managing Board			**René Aldach** Member of the Board (since September 1, 2021)		
€'000s / share of total remuneration in %	2021	**2022**		2021	**2022**	
Fixed annual salary	**1,450**	**1,469**	**25%**	**200**	**600**	**43%**
Fringe benefits	11	11	0%	5	13	1%
Contribution to private pension (cash allowance)	–	–		–	–	
One-year variable compensation	**2,770**	**2,394**	**41%**	**297**	**782**	**56%**
Annual bonus 2021	2,770	–		297	–	
Annual bonus 2022	–	2,394		–	782	
Multi-year variable compensation	**1,375**	**1,976**	**34%**	**0**		**0%**
Long-term bonus 2018–2020/2021						
Capital market component tranche 2018–2021	0	–		–	–	
Long-term bonus 2019–2021/2022						
Management component tranche 2019–2021	1,375	–		–	–	
Capital market component tranche 2019–2022	–	0		–	–	
Long-term bonus 2020–2022/2023	–			–		
Management component tranche 2020–2022	–	1,976		–	–	
Others	–		0%	–		0%
Granted and owed remuneration pursuant to section 162 of the AktG	**5,606**	**5,850**	**100%**	**502**	**1,395**	**100%**
Service costs	427	414	–	83	254	–
Total compensation	**6,033**	**6,264**	**–**	**585**	**1,649**	**–**

Granted and owed remuneration pursuant to section 162 of the AktG

	Kevin Gluskie Member of the Managing Board[1]			**Hakan Gurdal** Member of the Managing Board			**Ernest Jelito** Member of the Managing Board			**Dr Nicola Kimm** Member of the Managing Board (since 1 September 2021)		
€'000s / share of total remuneration in %	2021	**2022**		2021	**2022**		2021	**2022**		2021	**2022**	
Fixed annual salary	**913**	**960**	**26%**	**764**	**770**	**29%**	**700**	**719**	**28%**	**200**	**600**	**42%**
Fringe benefits	463	502	13%	84	79	3%	27	80	3%	72	83	6%
Contribution to private pension (cash allowance)	–	–		–	–		–	–		–	–	
One-year variable compensation	**1,314**	**1,170**	**31%**	**1,133**	**973**	**36%**	**1,045**	**901**	**35%**	**293**	**749**	**52%**
Annual bonus 2021	1,314	–		1,133	–		1,045	–		293	–	
Annual bonus 2022	–	1,170		–	973		–	901		–	749	
Multi-year variable compensation	**1,076**	**1,096**	**30%**	**875**	**875**	**32%**	**730**	**875**	**34%**	**0**		**0%**
Long-term bonus 2018–2020/2021		–										
Capital market component tranche 2018–2021	0	–		0	–		0	–		–	–	
Long-term bonus 2019–2021/2022		0										
Management component tranche 2019–2021	1,076	–		875	–		730	–		–	–	
Capital market component tranche 2019–2022	–	–		–	–		–	–		–	–	
Long-term bonus 2020–2022/2023												
Management component tranche 2020–2022	–	1,096			875		–	875		–	–	
Others	–	–	0%	–	–	0%	–	–	0%	–	–	0%
Granted and owed remuneration pursuant to section 162 of the AktG	**3,766**	**3,728**	**100%**	**2,856**	**2,697**	**100%**	**2,502**	**2,575**	**100%**	**565**	**1,432**	**100%**
Service costs	843	821	–	664	638	–	460	462	–	83	272	–
Total compensation	**4,608**	**4,549**	**–**	**3,520**	**3,335**	**–**	**2,962**	**3,037**	**–**	**648**	**1,704**	**–**

1) 90% of the fixed annual salary, the annual bonus and the long-term bonus of Kevin Gluskie are paid by HeidelbergCement Asia. The remaining 10% was paid by HeidelbergCement AG. The fringe benefits of Kevin Gluskie include, in addition to the assumption of costs for a company car, group accident insurance and flights home, as well as a travel allowance and the assumption of costs for a company flat. Under the terms of his employment contract, Kevin Gluskie receives his remuneration in Australian dollars. The average exchange rates for 2021 (AUD/EUR 1.5751) and 2022 (AUD/EUR 1.5169) were used for translation into euros. The closing rates prior to the start of the performance period (31 December, 2018: AUD/EUR 1.62681, 31 December, 2019: AUD/EUR 1.5971) were used to convert its long-term bonus into euros.

Granted and owed remuneration pursuant to section 162 of the AktG

€'000s / share of total remuneration in %	Dennis Lentz Member of the Managing Board (since 1 September 2021)[2]			Jon Morrish Member of the Managing Board			Chris Ward Member of the Managing Board[3]		
	2021	2022		2021	2022		2021	2022	
Fixed annual salary	**200**	**600**	**36%**	**899**	**903**	**28%**	**710**	**819**	**25%**
Fringe benefits	25	326	19%	79	97	3%	58	60	2%
Contribution to private pension (cash allowance)	–	–		–	–		356	401	13%
One-year variable compensation	**303**	**765**	**45%**	**1,362**	**1,134**	**35%**	**1,013**	**1,000**	**31%**
Annual bonus 2021	303	–		1,362			1,013	–	
Annual bonus 2022	–	765		–	1,134		–	1,000	
Multi-year variable compensation	**0**		**0%**	**1,075**	**1,075**	**34%**	**713**	**936**	**29%**
Long-term bonus 2018–2020/2021									
Capital market component tranche 2018–2021	–	–		0	–		0	–	
Long-term bonus 2019–2021/2022									
Management component tranche 2019–2021	–	–		1,075	–		713	–	
Capital market component tranche 2019–2022	–	–		–	0		–	0	
Long-term bonus 2020–2022/2023									
Management component tranche 2020–2022	–	–		–	1,075		–	936	
Others	–	–	0%	–	–	0%	–	–	0%
Granted and owed remuneration pursuant to section 162 of the AktG	**528**	**1,691**	**100%**	**3,415**	**3,209**	**100%**	**2,850**	**3,216**	**100%**
Service costs	83	237	–	600	572	–	–	–	–
Total compensation	**611**	**1,928**	**–**	**4,015**	**3,781**	**–**	**2,850**	**3,216**	**–**

2) As of 1 December 2021, 70% of Dennis Lentz's fixed annual salary, the annual bonus and the long-term bonus were paid by Heidelberg Materials North America (Lehigh Hanson until 1 January 2023). The remaining 30% are paid by HeidelbergCement AG. Until 30 November 2021, 100% of the remuneration of Dennis Lentz was paid by HeidelbergCement AG. The fringe benefits of Dennis Lentz include, in addition to the assumption of costs for a company car, group accident insurance and flights home, especially secondment-related benefits such as foreign health insurance, relocation, housing, school and living costs.

3) 90% of the fixed annual salary, the annual bonus, and the long-term bonus of Chris Ward are borne by Heidelberg Materials North America (Lehigh Hanson until 1 January 2023). The remaining 10% is borne by HeidelbergCement AG. Chris Ward receives his remuneration in US dollars in accordance with his employment contract. The average exchange rates for the years 2021 (1.1830 USD/EUR) and 2022 (1.0536 USD/EUR) were used for conversion into euros. The closing rates before the start of the performance period (31 December, 2018: 1.1467 USD/EUR, 31 December, 2019: 1.1213 USD/EUR) were used to convert his long-term bonus into euros.

Remuneration of former members of the Managing Board

The remuneration granted and owed pursuant to section 162 of the AktG to former members of the Managing Board consists in particular of payouts of the long-term bonus and of retirement and transitional payments.

Former members of the Managing Board are entitled to payouts from the 2020 tranche of the management component, which was completed at the end of the 2022 financial year, and from the 2019 tranche of the capital market component, which was also completed at the end of the 2022 financial year.

The following table summarises the main elements of the tranches:

Summary of management component of long-term bonus 2020–2022/2023 for former members of the Managing Board

		Target achievement			
€'000s	Target value	EBIT	ROIC	Total	**Payout**
Dr Bernd Scheifele[1)]	102	200%	200%	200%	203
Dr Lorenz Näger	627				1,255

1) In the case of Dr Bernd Scheifele, the value for 2022 includes a crediting of a prepayment for the long-term bonus 2020–2022/2023 in the amount of € 102 thousand.

Summary of capital market component of long-term bonus 2020–2022/2023 for former members of the Managing Board

€'000s	Target value	Allocation price in €	Number of provisionally allocated PSUs	Target achievement relative TSR	Final number of PSUs	Closing price in €	**Payout**
Dr Lorenz Näger	531		9,038		0		0
Dr Bernd Scheifele	1,219	58.78	20,734	0.00%	0	54.76	0
Dr Albert Scheuer	313		5,316		0		0

The payment of the tranches will be made following the annual general meeting in 2023.

Further information on the 2020 tranche of the management component and the 2019 tranche of the capital market component can be found in the **Completed tranches at the end of the 2022 financial year section**.

The following table shows the remuneration granted and owed to the former members of the Managing Board in the 2022 financial year pursuant to section 162 of the AktG:

Granted and owed remuneration pursuant to section 162 of the AktG

	Dr Lorenz Näger Deputy Chairman of the Managing Board (until 31 Aug. 2021)		Dr Bernd Scheifele Chairman of the Managing Board (until 31 Jan. 2020)[1]		Dr Albert Scheuer Member of the Managing Board (until 5 Aug. 2019)	
€'000s / share of total remuneration in %		2022		2022		2022
Multi-year variable compensation	**1,255**	**53%**	**203**	**18%**	**0**	**0%**
Long-term bonus 2019–2021/2022						
Management component tranche 2019–2021	0		0		0	
Long-term bonus 2020–2022/2023						
Management component tranche 2020–2022	1,255		203		–	
Others[2]	746	32%	60	5%	0	0%
Total	**2,001**	**–**	**263**	**–**	**0**	**–**
Retirement and transitional payments	354	15%	900	77%	280	100%
Granted and owed remuneration pursuant to section 162 of the AktG	**2,355**	**100%**	**1,163**	**100%**	**280**	**100%**

1) In the case of Dr Bernd Scheifele, the value for 2022 includes a crediting of a prepayment for the long-term bonus 2020–2022/2023 in the amount of €102 thousand.
2) Includes the payment of a waiting allowance to Dr Scheifele and Dr Näger.

Remuneration of the Supervisory Board in the 2022 financial year

Principles of remuneration of the Supervisory Board

The remuneration system of the Supervisory Board of HeidelbergCement AG was approved by the annual general meeting in 2021 and came into force retroactively as of 1 January 2021.

The remuneration of the Supervisory Board is set out in section 12 of the Articles of Association of HeidelbergCement AG. It consists of fixed amounts and attendance fees. Each member receives a fixed remuneration of €80,000, the chairman receives two and a half times and his deputy one and a half times the amount. The members of the Audit Committee additionally receive a fixed remuneration of €25,000 and the members of the Personnel Committee €20,000. The chairperson of the committees receives twice these respective amounts.

In addition, an attendance fee of €2,000 is paid for each personal participation in a meeting of the Supervisory Board and its committees, irrespective of the form in which it is carried out. For multiple meetings that take place on the same day or on subsequent days, the attendance fee is paid only once.

Remuneration granted and owed to the members of the Supervisory Board

The following table lists the remuneration granted and owed to the members of the Supervisory Board in the 2022 financial year pursuant to section 162 of the AktG:

Remuneration granted and owed to the members of the Supervisory Board

	Fixed remuneration			Remuneration for committee membership			Attendance fees			Total remuneration	
€'000s / share of total remuneration in %	2021	**2022**		2021	**2022**		2021	**2022**		2021	**2022**
Fritz-Jürgen Heckmann (Chairman) (until 12 May 2022)	200	72	70%	45	16	15%	28	16	15%	273	105
Dr Bernd Scheifele (Chairman) (since 12 May 2022)	–	128	77%	–	29	17%	–	10	6%	–	167
Heinz Schmitt (Deputy Chairman)	120	120	66%	45	45	25%	26	18	10%	191	183
Barbara Breuninger	80	80	65%	25	25	20%	22	18	15%	127	123
Birgit Jochens	80	80	71%	20	20	18%	22	12	11%	122	112
Ludwig Merckle	80	80	47%	65	65	38%	28	24	14%	173	169
Tobias Merckle[1] (until 12 May 2022)	80	29	83%	–	0	0%	18	6	17%	98	35
Dr Sopna Sury[1] (since 12 May 2022)	–	51	89%	–	0	0%	–	6	11%	–	57
Luka Mucic	80	80	48%	70	70	42%	26	18	11%	176	168
Dr Ines Ploss	80	80	71%	20	20	18%	22	12	11%	122	112
Peter Riedel	80	80	65%	25	25	20%	22	18	15%	127	123
Werner Schraeder	80	80	56%	45	45	31%	26	18	13%	151	143
Margret Suckale	80	80	54%	45	45	30%	28	24	16%	153	149
Prof. Dr Marion Weissenberger-Eibl[1]	80	80	87%	–	0	0%	20	12	13%	100	92
Total	**1,120**	**1,121**	**64%**	**405**	**405**	**23%**	**288**	**212**	**12%**	**1,813**	**1,738**

1) No committee work

Comparative presentation of the development in remuneration and earnings

In accordance with the provisions of section 162(1)(2)(2) of the AktG, the following table shows the remuneration development of the members of the Managing Board who were active in the 2022 financial year as well as former members of the Managing Board on the basis of the remuneration granted and owed pursuant to section 162 of the AktG, the members of the Supervisory Board, and the employees in comparison with the company's development in earnings. For the employees, the total workforce of HeidelbergCement AG excluding the Managing Board was taken into account.

Development of the average direct remuneration of the the Managing Board, the Supervisory Board and workforce of HeidelbergCement AG

€'000s	2018	Change	2019	Change	2020	Change	2021	Change	2022
Development of earnings									
Result from current operations before depreciation and amortisation in €m	3,100	15%	3,580	4%	3,707	5%	3,875	-4%	3,739
Profit/loss for the financial year attributable to HeidelbergCement AG shareholders in €m	1,143	-5%	1,091	(-296%) [1]	-2,139	(-182%)[1]	1,759	-9%	1,597
Net profit/net loss of HeidelbergCement AG pursuant to the HGB in €m	-204	(-177%)[1]	35	(-346%)[1]	-86	(-556%)[1]	392	-34%	257
Employees[2]									
Average	71	1%	72	-1%	71	4%	74	-3%	72
Active members of the Managing Board in the financial year									
Dr Dominik von Achten (Chairman)[3]	4,210	-14%	3,611	41%	5,104	10%	5,606	4%	5,850
René Aldach[4]	–		–		–	–	502	178%	1,395
Kevin Gluskie	2,830	16%	3,287	0%	3,277	15%	3,766	-1%	3,728
Hakan Gurdal	1,963	16%	2,286	6%	2,430	18%	2,856	-6%	2,697
Ernest Jelito[5]	–		809	115%	1,736	44%	2,502	3%	2,575
Dr Nicola Kimm[4]	–		–		–	–	565	153%	1,432
Dennis Lentz [4]	–		–		–	–	528	220%	1,691
Jon Morrish	2,425	16%	2,806	11%	3,109	10%	3,415	-6%	3,209
Chris Ward [6]	–		780	176%	2,152	32%	2,850	13%	3,216

Development of the average direct remuneration of the the Managing Board, the Supervisory Board and workforce of HeidelbergCement AG

€'000s	2018	Change	2019	Change	2020	Change	2021	Change	2022
Former members of the Managing Board									
Dr Lorenz Näger[7)]	3,457	-17%	2,878	23%	3,544	81%	6,407	-63%	2,355
Dr Bernd Scheifele[8)]	7,933	-19%	6,433	-62%	2,439	67%	4,063	-71%	1,163
Dr Albert Scheuer[9)]	3,003	-27%	2,179	-66%	743	17%	873	-68%	280
Members of the Supervisory Board[10)]									
Fritz-Jürgen Heckmann (Chairman)[11)]	232	11%	257	-2%	251	9%	273	-62%	105
Dr Bernd Scheifele (Chairman)[12)]	-		-		-		-		167
Heinz Schmitt (Deputy Chairman)	162	9%	177	-1%	175	9%	191	-4%	183
Barbara Breuninger	58	83%	106	10%	117	9%	127	-3%	123
Birgit Jochens	-		71	58%	112	9%	122	-8%	112
Ludwig Merckle	172	-3%	166	-5%	157	10%	173	-2%	169
Tobias Merckle	78	15%	90	0%	90	9%	98	-64%	35
Dr Sopna Sury	-		-		-		-		57
Luka Mucic	-		101	58%	160	10%	176	-5%	168
Dr Ines Ploss	-		71	58%	112	9%	122	-8%	112
Peter Riedel	-		74	58%	117	9%	127	-3%	123
Werner Schraeder	107	21%	130	5%	137	10%	151	-5%	143
Margret Suckale	102	25%	128	5%	135	13%	153	-3%	149
Prof. Dr Marion Weissenberger-Eibl	80	13%	90	-2%	88	14%	100	-8%	92

1) Mathematically determined change; limited interpretability due to change of algebraic sign within the reference values.
2) Total workforce of HeidelbergCement AG incl. top and senior management, excluding Managing Board (full-time equivalents)
3) Chairman of the Managing Board since 1 February 2020
4) Member of the Managing Board since 1 September 2021
5) Member of the Managing Board since 1 July 2019
6) Member of the Managing Board since 1 September 2019
7) Deputy Chairman of the Managing Board until 31 August 2021
8) Chairman of the Managing Board until 31 January 2020
9) Member of the Managing Board until 5 August 2019
10) Individual amounts may fluctuate due to entries and exits during the year as well as changing committee activities.
11) Chairman of the Supervisory Board until 12 May 2022
12) Chairman of the Supervisory Board since 12 May 2022

Auditor’s Report

To HeidelbergCement AG, Heidelberg

We have audited the remuneration report of HeidelbergCement AG, Heidelberg, for the financial year from January 1 to December 31, 2022 including the related disclosures, which was prepared to comply with § [Article] 162 AktG [Aktiengesetz: German Stock Corporation Act].

Responsibilities of the Executive Directors and the Supervisory Board

The executive directors and the supervisory board of HeidelbergCement AG are responsible for the preparation of the remuneration report, including the related disclosures, that complies with the requirements of §162 AktG. The executive directors and the supervisory board are also responsible for such internal control as they determine is necessary to enable the preparation of a remuneration report, including the related disclosures, that is free from material misstatement, whether due to fraud or error.

Auditor’s Responsibilities

Our responsibility is to express an opinion on this remuneration report, including the related disclosures, based on our audit. We conducted our audit in accordance with German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the remuneration report, including the related disclosures, is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts including the related disclosures stated in the remuneration report. The procedures selected depend on the auditor's judgment. This includes the assessment of the risks of material misstatement of the remuneration report including the related disclosures, whether due to fraud or error.

In making those risk assessments, the auditor considers internal control relevant to the preparation of the remuneration report including the related disclosures. The objective of this is to plan and perform 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. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the executive directors and the supervisory board, as well as evaluating the overall presentation of remuneration report including the related disclosures.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Audit Opinion

In our opinion, based on the findings of our audit, the remuneration report for the financial year from January 1 to December 31, 2022, including the related disclosures, complies in all material respects with the accounting provisions of §162 AktG.

Reference to an Other Matter – Formal Audit of the Remuneration Report according to §162 AktG

The audit of the content of the remuneration report described in this auditor’s report includes the formal audit of the remuneration report required by §162 Abs. [paragraph] 3 AktG, including the issuance of a report on this audit. As we express an unqualified audit opinion on the content of the remuneration report, this audit opinion includes that the information required by §162 Abs. 1 and 2 AktG has been disclosed in all material respects in the remuneration report.

Restriction on use

We issue this auditor's report on the basis of the engagement agreed with HeidelbergCement AG. The audit has been performed only for purposes of the company and the auditor's report is solely intended to inform the company as to the results of the audit. Our responsibility for the audit and for our auditor's report is only towards the company in accordance with this engagement. The auditor's report is not intended for any third parties to base any (financial) decisions thereon. We do not assume any responsibility, duty of care or liability towards third parties; no third parties are included in the scope of protection of the underlying engagement. §334 BGB [Bürgerliches Gesetzbuch: German Civil Code], according to which objections arising from a contract may also be raised against third parties, is not waived.

Frankfurt am Main, March 22, 2023
PricewaterhouseCoopers GmbH

Wirtschaftsprüfungsgesellschaft

[sgnd. Thomas Tilgner]	[sgnd. ppa. Olav Krützfeldt]
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

Additional information

Heidelberg Materials at a glance

Figures in €m	2018	2019	2020	2021	**2022**
Sales volumes					
Cement and clinker (million tonnes)	130	125.9	122	126.5	118.8
Aggregates (million tonnes)	309.4	308.3	296.3	306.4	293.7
Ready-mixed concrete (million cubic metres)	49.0	50.7	46.9	47.4	45.0
Asphalt (million tonnes)	10.3	11.3	11.0	10.4	8.2
Income statement					
Revenue	18,075	18,851	17,606	18,720	21,095
Result from current operations before depreciation and amortisation (RCOBD[1) 2)])	3,100	3,580	3,707	3,875	3,739
Result from current operations (RCO[2) 3)])	2,010	2,186	2,363	2,614	2,476
Additional ordinary result	108	-178	-3,678	481	-193
Financial result[2)]	-353	-375	-287	-201	-65
Profit/loss for the financial year	1,286	1,242	-2,009	1,902	1,723
Profit/loss attributable to HeidelbergCement AG shareholders	1,143	1,091	-2,139	1,759	1,597
Earnings per share in € [4)]	5.76	5.50	-10.78	8.91	8.45
Dividend per share in €	0.60	2.20	2.40	2.40	2,60 [5)]
Investments					
Investments in intangible assets and PP&E	1,061	1,183	969	1,419	1,260
Investments in financial assets[6)]	663	131	98	180	551
Total investments	1,723	1,314	1,067	1,599	1,811
Cash flow					
Cash flow from operating activities	1,968	2,664	3,027	2,396	2,420
Free cash flow[7)]		1,702	2,172	1,187	1,341
Balance sheet					
Equity (incl. non-controlling interests)	16,822	18,504	14,548	16,659	17,624
Balance sheet total	35,783	38,589	32,335	33,711	33,256
Net debt[7)]	8,323	8,410	6,893	4,999	5,532
Ratios					
RCOBD[1)] margin in %	17.2	19.0	21.1	20.7	17.7
Return on invested capital (ROIC)[7)] in %	6.9	6.5	7.9	9.3	9.1
Leverage ratio	2,68x	2,35x	1,86x	1,29x	1,48x

1) RCOBD = Result from current operations before depreciation and amortisation.
2) 2018 amount adjusted due to first-time application of IFRS 16 Leases.
3) RCO = Result from current operations.
4) Attributable to HeidelbergCement AG shareholders.
5) The Managing Board and Supervisory Board will propose to the Annual General Meeting on 11 May 2023 the distribution of a cash dividend of €2.60.
6) 2019 value was restated.
7) Adjustment of definition as of 2019.
8) 2018 value was restated due to adjusted net debt definition.

Revenue and results by business lines

€m	Cement 2021	Cement **2022**	Aggregates 2021	Aggregates **2022**	Ready-mixed concrete-asphalt 2021	Ready-mixed concrete-asphalt **2022**	Service-joint ventures-other 2021	Service-joint ventures-other **2022**	Reconciliation[2] 2021	Reconciliation[2] **2022**	Total Group 2021	Total Group **2022**
External revenue	8,359	9,519	3,139	3,634	5,407	5,890	1,814	2,052	0	0	18,720	21,095
Inter-business lines revenue	1,218	1,487	1,024	1,093	62	68	832	1,135	-3,136	-3,783	0	0
Revenue	9,577	11,006	4,164	4,727	5,469	5,958	2,646	3,187	-3,136	-3,783	18,720	21,095
of which Western and Southern Europe	2,881	3,385	1,278	1,383	2,131	2,376	367	406	-1,100	-1,241	5,557	6,308
of which Northern and Eastern Europe-Central Asia	1,631	1,933	564	644	614	715	485	554	-211	-245	3,084	3,600
of which North America	1,828	1,974	1,718	1,987	1,231	1,161	279	331	-504	-545	4,551	4,907
of which Asia Pacific	1,678	1,961	563	665	1,141	1,298	45	59	-302	-349	3,126	3,633
of which Africa-Eastern Mediterranean Basin	1,585	1,755	78	92	352	409	42	49	-147	-196	1,909	2,108
of which Group Services	0	0	0	0	0	0	1,421	1,783	0	0	1,421	1,783
of which corporate, reconciliation and other[1]	-27	-2	-38	-43	0	0	7	6	-871	-1,206	-930	-1,245
Result from current operations before depreciation and amortisation (RCOBD)	2,250	2,205	1,077	1,123	123	75	458	344	-33	-7	3,875	3,739
of which Western and Southern Europe	584	599	260	235	10	10	83	64	0	0	937	908
of which Northern and Eastern Europe-Central Asia	471	510	124	133	38	40	104	46	0	0	737	730
of which North America	441	424	529	574	34	-3	38	34	0	0	1,042	1,028
of which Asia Pacific	320	279	145	157	26	21	179	141	0	0	670	598
of which Africa-Eastern Mediterranean Basin	433	392	18	25	16	8	23	40	0	0	489	464
of which Group Services	-0	-0	0	0	0	0	30	35	0	0	30	35
of which corporate, reconciliation and other[1]	2	1	-0	0	-1	-1	-0	-15	-33	-7	-32	-22
Result from current operations	1,570	1,541	748	778	-49	-99	406	288	-62	-32	2,614	2,476
of which Western and Southern Europe	388	420	155	135	-52	-53	70	49	-0	-0	561	550
of which Northern and Eastern Europe-Central Asia	371	413	68	72	12	15	92	34	0	0	544	534
of which North America	283	276	416	448	1	-39	22	15	0	0	722	700
of which Asia Pacific	183	128	97	109	-17	-21	172	133	0	-0	435	350
of which Africa-Eastern Mediterranean Basin	343	303	11	15	7	-1	22	38	0	0	383	355
of which Group Services	-0	-0	0	0	0	0	30	34	0	0	30	34
of which corporate, reconciliation and other[1]	2	1	-0	0	-1	-1	-0	-15	-62	-32	-61	-47

1) Reconciliation includes:
a. intra-Group revenues = eliminations of intra-Group relationships between the areas
b. corporate functions (column "Reconciliation") & other (column "Service-joint ventures-other")
2) Reconciliation includes:
a. intra-Group revenues = eliminations of intra-Group relationships between the segments
b. corporate functions

Cement capacities[1]

	Million tonnes
Western and Southern Europe	
Belgium	4.0
Germany	10.8
France	7.1
United Kingdom	6.0
Italy	9.9
Netherlands	2.3
Spain	1.4
	41.5
Northern and Eastern Europe-Central Asia	
Bulgaria	2.3
Estonia	0.9
Greece	0.9
Kazakhstan	4.1
Norway	1.8
Poland	5.1
Romania	6.3
Russia	4.9
Sweden	2.8
Czechia	2.5
	31.7
North America	
Canada	3.8
USA	11.0
	14.8
Asia-Pacific	
Bangladesh	3.7
Brunei	0.4
India	12.4
Indonesia	28.3
Thailand	6.1
	50.9

Cement capacities[1]

	Million tonnes
Africa-Eastern Mediterranean Basin	
Egypt	9.5
Benin	0.6
Burkina Faso	1.4
DR Congo	0.8
Ghana	4.1
Liberia	0.7
Morocco	5.1
Mozambique	0.3
Tanzania	2.1
Togo	1.7
	26.2
Total Heidelberg Materials	**165.2**

1) Operational capacities based on 80% calendar time utilisation.

Cement capacities of joint ventures[2]

	Million tonnes
Australia	2.4
Bosnia-Herzegovina	0.4
China	8.5
Georgia	0.9
South Africa	0.3
Turkey	2.8
Hungary	1.6
USA (Texas)	0.5
Total joint ventures	**17.4**
Heidelberg Materials incl. joint ventures	**182.6**

2) Cement capacities according to our ownership.

Aggregates reserves and resources[3]

Billion tonnes	Reserves	Resources	Total
Western and Southern Europe	1.0	1.8	2.8
Northern and Eastern Europe-Central Asia	0.7	0.4	1.2
North America	4.5	7.1	11.6
Asia-Pacific	1.1	1.7	2.8
Africa-Eastern Mediterranean Basin	0.02	0.05	0.1
Heidelberg Materials total	**7.4**	**11.0**	**18.4**

3) Defined in the PERC Reporting Standard for mineral reserves and resources, see page 141 in the Risk and opportunity report.

ESG indicators

	1990	2020	2021	**2022**	Unit	**Assurance 2022**
CO_2 emissions						
Cement business line						
– Absolute gross CO_2 emissions (Scope 1)	82.6	67.9	69.0	65.4	million t	○ ●
– Absolute net CO_2 emissions (Scope 1)	81.0	63.6	64.6	61.2	million t	○ ●
– Specific gross CO_2 emissions per tonne of cementitious material (Scope 1)	759.6	610	599	586	kg CO_2/t	○ ●
– Specific net CO_2 emissions per tonne of cementitious material (Scope 1)	751.8	576	565	551	kg CO_2/t	● ●
– Absolute CO_2 emissions from external electrical power and thermal energy production (Scope 2)	6.6	4.9	4.8	4.5	million t	○ ●
– Specific CO_2 emissions from external electrical power and thermal energy production per tonne of cementitious material (Scope 2)		44	42	41	kg CO_2/t	○ ●
Aggregates business line						
– Absolute CO_2 emissions from fuels (Scope 1)	–	0.40	0.49	0.51	million t	○
– Specific CO_2 emissions from fuels (Scope 1)	–	1.52	1.62	1.79	kg CO_2/t	○
– Absolute CO_2 emissions from external electrical power and thermal energy production (Scope 2)	–	0.24	0.26	0.28	million t	○
– Specific CO_2 emissions from external electrical power and thermal energy production (Scope 2)	–	0.92	0.87	0.98	kg CO_2/t	○
All business lines						
– CO_2 emissions from purchased materials (Scope 3)[1]	–	8.9	8.1	11.0	million t	○ ●
– CO_2 emissions from purchased fuels (Scope 3)[2]	–	3.5	3.7	3,4	million t	○ ●
– CO_2 emissions from upstream and downstream transportation and distribution (Scope 3)[3]	–	8.9	8.2	7.6	million t	○ ●
Energy/raw materials						
Absolute energy consumption						
– Cement	450,860	343,099	353,640	337,186	TJ	○ ●
thereof clinker production	385,973	290,535	297,377	287,684	TJ	○ ●
– Aggregates	n.a.	8,181	9,586	9,900	TJ	○
Specific energy consumption						
– Cement	4,186	3,108	3,093	3,037	MJ/t	○ ●
thereof clinker production	4,359	3,574	3,590	3,611	MJ/t	○ ●
– Aggregates	n.a.	30.6	31.6	34.8	MJ/t	○
Fuel mix for clinker production						
– Hard coal	52.5	38.2	41.7	37.3	%	○ ●
– Lignite	0.0	2.1	1.9	1.9	%	○ ●
– Petroleum coke	8.6	23.4	18.9	20.9	%	○ ●
– Natural gas	17.1	10.3	10.6	10.8	%	○ ●
– Light fuel oil	0.6	0.2	0.2	0.2	%	○ ●
– Heavy fuel oil	16.0	0.2	0.2	0.3	%	○ ●
– Other fossil fuels	2.2	0.0	0.0	0	%	○ ●
– Alternative fossil fuels	2.8	15.8	15.4	16.1	%	○ ●

● Reasonable assurance ○ Limited assurance ● Preparation according to GCCA Guidelines

ESG indicators

	1990	2020	2021	**2022**	Unit	**Assurance 2022**
– Biomass	0.2	9.9	11.2	12.6	%	○ ●
– Proportion of biomass in mix of alternative fuels	6.3	38.6	42.0	43.8	%	○ ●
Alternative fuel mix for clinker production						
– RDF	1.6	27.5	26.1	26.0	%	○ ●
– Waste oil	29.0	3.0	2.6	1.9	%	○ ●
– Used tyres	17.1	9.5	9.8	8.9	%	○ ●
– Solvents	30.8	7.0	6.8	6.0	%	○ ●
– Dried sewage sludge	0.0	1.8	1.7	1.6	%	○ ●
– Meat and bone meal	0.0	3.3	3.2	3.3	%	○ ●
– Agricultural waste and waste wood	0.0	7.7	9.3	10.4	%	○ ●
– Other biomass	6.3	25.8	27.8	28.5	%	○ ●
– Other alternative fuels	15.1	14.3	12.8	13.3	%	○ ●
Alternative fuel rate (incl. biomass)	3.0	25.7	26.4	28.7	%	● ●
Clinker ratio (cementitious material)	82.0	74.3	72.9	71.6	%	● ●
Proportion of alternative raw materials						
– Clinker	n.a.	3.3	3.8	4.0	%	○ ●
– Cement[4)]	n.a.	9.5	9.8	10.6	%	○ ●

	2008	2020	2021	**2022**	Unit	**Assurance 2022**
Emissions						
Absolute NO_x emissions	84,571	99,983	102,203	98,758	t	○ ●
Specific NO_x emissions	1,585	1,230	1,235	1,249	g/t clinker	○ ●
Absolute SO_x emissions	27,007	26,085	27,543	27,636	t	○ ●
Specific SO_x emissions	506	321	333	349	g/t clinker	○ ●
Absolute dust emissions	17,043	2,930	3,250	2,236	t	○ ●
Specific dust emissions	319	36	39	28	g/t clinker	○ ●
Proportion of clinker produced in kilns with continuous or discontinuous measurement of all emissions	49	70	67	77	%	○ ●
Proportion of clinker produced in kilns with continuous measurement of dust, NO_x, and SO_x emissions	63	88	86	90	%	○ ●
Mercury						
– Specific emissions	n.a.	0.020	0.018	0.015	g/t clinker	○ ●
– Number of kilns reported	n.a.	95	94	94	number	
Dioxins and furans						
– Specific emissions	n.a.	0.053	0.042	0.073	µg TEQ/t clinker	○ ●
– Number of kilns reported	n.a.	91	85	89	number	

● Reasonable assurance ○ Limited assurance ● Preparation according to GCCA Guidelines

ESG indicators

	2020	2021	**2022**	Unit	**Assurance 2022**
Biodiversity[5]					
Proportion of quarries located near an area of high biodiversity value with biodiversity management plan[6]	54	43	51	%	○ ●
Proportion of quarries with an after-use plan	80	87	92	%	○ ●
Sustainable products and solutions					
Share of sustainable revenue in total revenue[7][8][9][10]	28	31	34	%	○
Number of memberships in Green Building Councils and Sustainable Infrastructure Councils	13	15	15	number	
Cement type portfolio					
– Ordinary Portland cement	37.4	32.2	28.4	%	
– Limestone cement	19.7	21.5	24.1	%	
– Pozzolana/fly ash cement	7.7	8.8	10.4	%	
– Slag cement	10.3	9.9	9.8	%	
– Multi-component cement	21.5	23.2	22.4	%	
– Oilwell/white cement	0.5	0.5	0.5	%	
– Masonry cement/special binder	1.1	2.1	2.4	%	
– Ground granulated blast furnace slag	1.7	1.7	2.0	%	
Circularity					
Production volume of recycled aggregates (100% recycled content)[11]	4.6	3.3	3.8	million t	
Share of recycled aggregates in total aggregates production[12]	1.6	1.1	1.3	%	
Share of alternative raw materials contained in other building materials such as asphalt	7.6	9.8	12.1	%	
EU Taxonomy Regulation[13]					
Taxonomy-eligible revenue	–	51.2	52.4	%	○
– thereof taxonomy-aligned revenue	–	–	0.8	%	○
Taxonomy-eligible investments	–	57.0	62.8	%	○
– thereof taxonomy-aligned investments	–	–	23.3	%	○
Taxonomy-eligible operating expenses	–	55.9	56.1	%	○
– thereof taxonomy-aligned operating expenses	–	–	2.9	%	○
Waste[14]					
Total waste generated	–	1,276.7	953.1	kt	
– thereof non-hazardous waste	–	93	98	%	
– thereof hazardous waste	–	7	2	%	
Total waste disposed					
– Share of waste sent to reuse, recovery, or recycling	–	66	73	%	
– Share of waste directed to disposal	–	34	27	%	

● Reasonable assurance ○ Limited assurance ● Preparation according to GCCA Guidelines

ESG indicators

	2020	2021	**2022**	Unit	**Assurance 2022**
Water					
Cement business line					
Total water withdrawal	60.2	60.3	60.7	million m³	○ ●
– thereof in areas with water scarcity	15.7	16.7	15.6	million m³	
By source:					
– Surface water	29.1	28.6	26.3	million m³	○ ●
– Groundwater	9.4	8.9	9.9	million m³	○ ●
– Seawater	2.9	3.5	3.5	million m³	○ ●
– Municipal/potable water	4.5	5.1	4.6	million m³	○ ●
– External waste water	0.0	0.0	0.2	million m³	○ ●
– Quarry water used	11.8	11.5	14.3	million m³	○ ●
– Harvested rain water used in processes	2.5	2.5	2.0	million m³	○ ●
Total water discharge	29.5	29.5	28.9	million m³	○ ●
– thereof in areas with water scarcity	6.6	6.7	6.0	million m³	
By place of discharge:					
– Surface water	24.7	23.9	23.3	million m³	○ ●
– Groundwater	0.1	0.1	0.1	million m³	○ ●
– Seawater	3.3	3.9	3.9	million m³	○ ●
– Off-site water treatment facility	0.9	1.1	1.0	million m³	○ ●
– Discharge to beneficial third party/other	0.5	0.5	0.6	million m³	○ ●
Total water consumption (water withdrawal minus wastewater discharge)	30.7	30.8	31.8	million m³	○ ●
– thereof in areas with water scarcity	9.0	10.0	10.0	million m³	
Quarry water not used	73.4	69.5	51.3	million m³	
Specific water withdrawal for clinker	739.5	727.9	762.6	l/t	○ ●
Specific water withdrawal for cement	533.0	520.3	549.7	l/t	○ ●
Specific water discharge for clinker	362.3	355.9	363.5	l/t	○ ●
Specific water discharge for cement	261.1	254.4	262.0	l/t	○ ●
Specific water consumption for clinker	377.2	372.0	399.1	l/t	○ ●
Specific water consumption for cement	271.9	265.9	287.7	l/t	○ ●
Aggregates business line[15)]					
Total water withdrawal	–	243.8	195.6	million m³	
Total water discharge	–	201.7	167.8	million m³	
Total water consumption	–	42.1	35.3	million m³	
Specific water consumption for aggregates	–	139.9	125.4	l/t	

● Reasonable assurance ○ Limited assurance ● Preparation according to GCCA Guidelines

ESG indicators

	2020	2021	**2022**	Unit	**Assurance 2022**
Ready-mixed concrete business line[15)]					
Total water withdrawal	–	26,351	25,351	million m³	
Total water discharge	–	24,026	23,143	million m³	
Total water consumption	–	2,324	2,208	million m³	
Specific water consumption for ready-mixed concrete		61.2	49.4	l/m³	
Employees, diversity, equity, and inclusion					
Number of employees as at 31 December					
– Western and Southern Europe	15,250	15,040	14,883	Full-time equivalent	●
– Northern and Eastern Europe-Central Asia	11,097	11,101	10,869	Full-time equivalent	●
– North America	8,585	7,637	7,933	Full-time equivalent	●
– Asia-Pacific	12,629	12,460	12,139	Full-time equivalent	●
– Africa-Eastern Mediterranean Basin	5,175	4,886	4,858	Full-time equivalent	●
– Group Services	388	85	99	Full-time equivalent	●
– Total Group	53,122	51,209	50,780	Full-time equivalent	●
Employee turnover					
– Western and Southern Europe	8	12	8	%	
– Northern and Eastern Europe-Central Asia	9	12	14	%	
– North America	16	36	28	%	
– Asia-Pacific	6	10	14	%	
– Africa-Eastern Mediterranean Basin	4	16	10	%	
– Total	8	15	14	%	
Voluntary fluctuation rate	6	12	11	%	
Number of total hires	4,193	10,511	10,165	Full-time equivalent	
Internal hire rate	29	32	23	%	
Proportion of part-time employees (Group)	2.3	2.5	2.5	%	
Proportion of part-time employees (HeidelbergCement AG)	10.7	9.9	10.1	%	

● Reasonable assurance ○ Limited assurance ● Preparation according to GCCA Guidelines

ESG indicators

	2020	2021	**2022**	Unit	**Assurance 2022**
Age structure (Group)					
– Younger than 30	10.6	11.2	11.2	%	
– 30–49	51.2	51.8	51.4	%	
– 50 and older	38.1	37.0	37.5	%	
Share of female employees (Group)	13	14	14	%	
Share of female employees N-1 & N-2 with leadership responsibility (Group)[16]	–	14	14	%	○
Share of female employees in programmes for the advancement of future executives (Group)	16	15	19	%	
Share of female employees (Germany)	15.9	15.9	16.9	%	○
Share of female employees N-1 & N-2 with leadership responsibility (Germany)	16	18	22	%	○
Share of female employees N-1 with leadership responsibility (Germany)	16	17	16	%	○
Share of female employees N-2 with leadership responsibility (Germany)	16	19	25	%	○
Share of female employees in all management positions independent of leadership responsibility (Germany)	21	22	23	%	
Share of female employees in programmes for the advancement of future executives (Group)	31	31	31	%	○
Share of female employees in revenue-generating functions	10	11	11	%	
Share of local managers in senior management positions (Group)	80	81	82	%	○
Proportion of disabled employees					
– Germany	3.8	4.1	3.9	%	
– HeidelbergCement AG	3.8	3.9	3.9	%	
Number of employees in Germany as at 31 December[17]	–	4,500	5,092	persons	
Employees in programmes for the advancement of future executives	455	1,117	1,281	persons	
Training hours per employee	21	24.98	27.58	hours	
Structure of training hours					
– Management training	4.0	3.9	3.9	%	
– Soft skills training	3.7	4.9	3.7	%	
– Specialist training	30.7	31.7	30.6	%	
– Occupational safety training	53.7	52.4	54.8	%	○
– Language courses	2.4	2.3	1.8	%	
– Other	5.5	4.9	5.2	%	
Percentage of trainees in Germany	3.8	3.7	3.0	%	
Percentage of trainees retained as permanent employees in Germany	91	70.5	85.0	%	

● Reasonable assurance ○ Limited assurance ● Preparation according to GCCA Guidelines

ESG indicators

	2020	2021	**2022**	Unit	**Assurance 2022**
Occupational health and safety					
Lost time injury frequency rate (LTIFR)[18]	1.6	1.6	1.7		○ ●
Lost time injury frequency rate (LTIFR), cement business line	1.2	1.2	1.0		○ ●
Lost time injury frequency rate (LTIFR) for contractors	2.3	1.8	1.9		
Lost time injury severity rate[19]	86	95	79		○ ●
Lost time injury severity rate, cement business line	58	48	50		○ ●
Fatality rate[20]	0.4	0.0	0.2		○ ●
Fatality rate, cement business line	0.0	0.0	0.0		○ ●
Number of fatalities					
– Group employees	2	0	1	persons	○ ●
– Employees of other companies	3	1	4	persons	○ ●
Lost time injury frequency rate (LTIFR) by region					
– Western and Southern Europe	2.2	3.4	3.2		○ ●
– Northern and Eastern Europe-Central Asia	2.1	1.6	1.7		○ ●
– North America	1.6	1.0	1.5		○ ●
– Asia-Pacific	0.9	0.7	0.7		○ ●
– Africa-Eastern Mediterranean Basin	1.1	0.9	0.6		○ ●
Occupational illness rate[21]	0.47	0.28	0.84		
Illness rate[22]	1.37	1.30	1.66		
Proportion of employees represented by H&S committees	97.5	97.7	97.2	%	
Proportion of employees represented by H&S committees with trade union representation	94.7	92.6	93.6	%	
Management systems					
Share of integrated cement plants with an environmental management system (ISO 14001 or similar)	97.4	96.5	96.4	%	○
Share of active aggregates production facilities with an environmental management system (ISO 14001 or similar)	40.0	41.4	40.0	%	
Share of integrated cement plants with an energy management system (ISO 50001 or similar)	–	41.9	42.9	%	○
Share of operational sites with a occupational health and safety management system (ISO 45001 or similar)	89	98	99	%	○
Compliance					
Number of reported incidents	239	238	233	number	○
– thereof on the topic of employee relations[23]	–	40	36	%	○
– thereof on the topic of health and safety[23]	–	15	9	%	○
– thereof on the topic of fraud, theft, or embezzlement[23]	–	8	9	%	○
– thereof on the topic of corruption or conflicts of interest[23]	–	9	18	%	○
– thereof on other topics[23]	–	28	28	%	○
– thereof share of substantiated incidents[23]	–	35	28	%	○

● Reasonable assurance ○ Limited assurance ● Preparation according to GCCA Guidelines

ESG indicators

	2020	2021	2022	Unit	Assurance 2022
Completion rate e-learning programmes[24]					
– thereof on the topic of Code of Business Conduct	93	94	94	%	○
– thereof on the topic of anti-corruption	92	95	95	%	○
– thereof on the topic of antitrust law	81	92	93	%	○
Corporate Citizenship					
CSR spend[25]	–	–	7.9	million €	○

1) The calculation methodology was adjusted in 2022 and relates only to the cement and ready-mixed concrete business lines. For the cement business, externally purchased mineral components, cement, and clinker are considered, for ready-mixed concrete the emissions contained in the purchased cement. The additives in ready-mixed concrete previously recorded are excluded.
2) Relates to the cement and aggregates business lines
3) Reporting according to GCCA guidelines and not in line with categories of the GHG-Protocol. Therefore both controlled and uncontrolled transport are included.
4) 2020 and 2021 values adjusted due to a change in methodology
5) Including joint ventures
6) 2021 value adjusted due to changes in the underlying data
7) Refers to the cement (cementitious material), aggregates (in North America and Australia), ready-mixed concrete and asphalt business lines
8) Revenue that we allocate to our sustainable products are not aligned with the definitions of the EU Taxonomy Regulation.
9) The system does not yet record all relevant revenue for this figure at product level. We are working on continuously improving data collection over the next few years. The revenue shares shown here therefore only refer to the revenue that has already been measured (about 75% of total revenue).
10) The underlying survey method of the specific gross emissions of the individual cement types was slightly adjusted in 2022 compared with previous years. However, this has only a negligible impact on the reported sustainable revenue in 2022.
11) The lower volume in 2021 compared with 2020 results from changes in reporting scope (e. g. divestment of the business on the US West Region). Value for 2020 on a like-for-like basis: 3.3 million t.
12) The lower share in 2021 compared with 2020 results from changes in reporting scope (e. g. divestment of the business on the US West Region). Value for 2020 on a like-for-like basis: 1.1%.
13) The values were to be reported for the first time for 2021 and 2022 respectively.
14) Waste figures include cement and aggregates business lines. Values were consolidated at Group-level for the first time in 2021 and are partially based on estimates or calculations. We are in the progress of setting up a comprehensive waste recording and reporting system at Group level and expect data quality to improve in the next years.
15) Values were consolidated at Group level for the first time in 2021 and are partially based on estimates or calculations. We are in the progress of setting up a comprehensive water recording and reporting system at Group level and expect data quality to improve in the next years.
16) Adjustment of definition as of 2021 to include Group average
17) Nationality Split: German 4.355 employees (86%)/Romanian 83 employees (2%)/Turkish 77 employees (2%)/Italian 66 employees (1%), Indian 56 employees (1%), Other 455 employees (all below 1.0% threshold, total: 9%)
18) Number of accidents (with at least one lost working day) suffered by Group employees per 1,000,000 working hours
19) Number of lost working days resulting from accidents suffered by Group employees per 1,000,000 working hours
20) Number of fatalities of Group employees per 10,000 Group employees
21) Number of offcially recognised occupational illnesses suffered by Group employees per 1,000,000 working hours
22) Proportion of lost working hours due to illness in relation to the total number of working hours (excluding Egypt, Morocco, and North America, as the general illness hours are not recorded there)
23) Values were consolidated at Group level for the first time in 2021.
24) Since 2022, the training status of the persons to be trained at the end of the financial year has been reported over the two-year training repetition period.
25) Data has been collected systematically in 2022 for the first time.

● Reasonable assurance ○ Limited assurance ● Preparation according to GCCA Guidelines

Independent Practitioner's Report on a Limited Assurance Engagement on Non-financial Reporting and Sustainability Information[1]

To HeidelbergCement AG, Heidelberg

We have performed a limited assurance engagement on the combined non-financial statement included in the section "Non-financial Statement" of the combined management report (hereinafter the "Combined Non-financial Statement") and on the ESG indicators denoted with "○" and "○ ●" in the section "Additional information" (hereinafter the "selected ESG indicators") in the Annual report of HeidelbergCement AG, Heidelberg, (hereinafter the "Company") for the period from 1 January to 31 December 2022 (hereinafter the "Annual Report"). Our engagement in context to the selected ESG indicators relates solely to the disclosures denoted with the symbols "○" and "○ ●".

Not subject to our assurance engagement are the external sources of documentation or expert opinions mentioned in the Combined Non-financial Statement, which are marked as unassured and the disclosures denoted with "●" and "● ●".

Responsibility of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Combined Non-financial Statement in accordance with §§ (Articles) 315c in conjunction with 289c to 289e HGB ("Handelsgesetzbuch": "German Commercial Code") and Article 8 of REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18. June 2020 on establishing a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (hereinafter the "EU Taxonomy Regulation") and the Delegated Acts adopted thereunder, as well as for making their own interpretation of the wording and terms contained in the EU Taxonomy Regulation and the Delegated Acts adopted thereunder, as set out in section "Information according to the Taxonomy Regulation" of the Combined Non-financial Statement. In addition, the executive directors of the Company are responsible for the preparation of the selected ESG indicators denoted with "○" in accordance with the relevant principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter the "GRI-Criteria") and the selected ESG indicators denoted with "○ ●" in accordance with the relevant GRI-Criteria and the relevant Global Cement and Concrete Association Sustainability Standards (hereinafter the "GCCA-Criteria"), and for the selection of the selected ESG indicators to be evaluated.

This responsibility includes the selection and application of appropriate non-financial and sustainability reporting methods and making assumptions and estimates about individual non-financial and sustainability disclosures of the Group that are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as the executive directors consider necessary to enable the preparation of the Annual report that is free from material misstatement whether due to fraud (manipulation of the Annual report) or error.

The EU Taxonomy Regulation and the Delegated Acts issued thereunder contain wording and terms that are still subject to considerable interpretation uncertainties and for which clarifications have not yet been published in every case. Therefore, the executive directors have disclosed their interpretation of the EU Taxonomy Regulation and the Delegated Acts adopted thereunder in section "Information according to the Taxonomy Regulation" of the Combined Non-financial Statement. They are responsible for the defensibility of this interpretation. Due to the immanent risk that indeterminate legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainties.

Independence and Quality Control of the Audit Firm

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis – IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

1) PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the Annual report and issued an independent practitioner's report in German language, which is authoritative. The following text is a translation of the independent practitioner's report.

Responsibility of the Assurance Practitioner
Our responsibility is to express a conclusion with limited assurance on the Combined Non-financial Statement included in the section "Non-financial statement" of the combined management report and the selected ESG indicators denoted with "○" and "○ ●" in section "Additional information" in the Annual report based on our assurance engagement.

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether any matters have come to our attention that cause us to believe that

- the Combined Non-financial Statement of the Company included in the section "Non-financial statement" of the combined management report in the Annual report, other than the external sources of documentation or expert opinions mentioned in the Combined Non-financial Statement, are not prepared, in all material respects, in accordance with §§315c in conjunction with 289c to 289e HGB and the EU Taxonomy Regulation and the Delegated Acts issued thereunder as well as the interpretation by the executive directors disclosed in section "Information according to the Taxonomy Regulation" of the Combined Non-financial Statement, or

- the selected ESG indicators denoted with "○" in the "Additonal Information" section of the Company's Annual report are not prepared, in all material respects, in accordance with the GRI-Criteria, or

- the selected ESG indicators denoted with "○ ●" in the "Additional Information" section of the Company's Annual report are not prepared, in all material respects, in accordance with the relevant GRI-Criteria or the relevant GCCA-Criteria.

In a limited assurance engagement the procedures performed are less extensive than in a reasonable assurance engagement, and accordingly a substantially lower level of assurance is obtained. The selection of the assurance procedures is subject to the professional judgement of the assurance practitioner.

In the course of our assurance engagement, we have, amongst other things, performed the following assurance procedures and other activities:

- Gain an understanding of the structure of the Group's sustainability organisation and stakeholder engagement

- Inquiries of the executive directors and relevant employees involved in the preparation of the Combined Non-financial Statement as well as the selected ESG indicators about the preparation process, about the internal control system relating to this process and about disclosures in the Combined Non-financial Statement and the selected ESG indicators

- Identification of likely risks of material misstatement in the Combined Non-financial Statement and the selected ESG indicators

- Conduct sampling site visits to assess processes and internal control measures at site level:

  - At the plant in Couvrot, France,

  - At the plant in Achères, France (web meeting),

  - At the plant in Ait Baha and Oulad Abbou, Morocco (web meeting)

- Analytical procedures on selected disclosures in the Combined Non-financial Statement and the selected ESG indicators

- Reconciliation of selected disclosures with the corresponding data in the combined management report

- Evaluation of the presentation of the Combined Non-financial Statement and the selected ESG indicators

- Evaluation of the process to identify taxonomy-eligible and taxonomy-aligned economic activities and the corresponding disclosures in the Combined Non-financial Statement

- Inquiries on the relevance of climate-risks

In determining the disclosures in accordance with Article 8 of the EU Taxonomy Regulation, the executive directors are required to interpret undefined legal terms. Due to the immanent risk that undefined legal terms may be interpreted differently, the legal conformity of their interpretation and, accordingly, our assurance engagement thereon are subject to uncertainties.

Assurance Opinion

Based on the assurance procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that

- the Combined Non-financial Statement for the period from 1 January to 31 December 2022 of the Company included in the section "Non-financial statement" of the combined management report in the Annual report is not prepared, in all material respects, in accordance with §§ 315c in conjunction with 289c to 289e HGB and the EU Taxonomy Regulation and the Delegated Acts issued thereunder as well as the interpretation by the executive directors disclosed in section "Information according to the Taxonomy Regulation" of the Combined Non-financial Statement,

  or

- the selected ESG indicators denoted with "○" in the "Additional Information" section of the Company's Annual report for the period from 1 January to 31 December 2022 is not prepared, in all material respects, in accordance with the relevant GRI-Criteria,

  or

- the selected ESG indicators of the Company denoted with "○ ●" in the "Additional Information" section of the Company's Annual report from 1 January to 31 December 2022 is not prepared, in all material respects, in accordance with the relevant GRI-Criteria or the relevant GCCA-Criteria.

We do not express an assurance opinion on the external sources of documentation or expert opinions mentioned in the Combined Non-financial Statement or the disclosures denoted with "●" and "● ●".

Restriction of Use

We draw attention to the fact that the assurance engagement was conducted for the Company's purposes and that the report is intended solely to inform the Company about the result of the assurance engagement. Consequently, it may not be suitable for any other purpose than the aforementioned. Accordingly, the report is not intended to be used by third parties for making (financial) decisions based on it. Our responsibility is to the Company. We do not accept any responsibility to third parties. Our assurance opinion is not modified in this respect.

Frankfurt am Main, 22 March 2023

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

(sgd. Nicolette Behncke) (sgd. ppa. Annette Fink)
Wirtschaftsprüfer
[German public auditor]

About our sustainability reporting

For the reporting year 2022, we have combined our Annual Report and our Sustainability Report for the first time. This allows us to provide you with all the information relating to our economic, ecological and social performance and responsibility as well as our progress in one single document.

This report has been prepared according to the GRI Standards on the basis of the concepts impact, material topics, due diligence, and stakeholder. The topics relevant for GRI reporting can be found in the **presentation on materiality**.

Heidelberg Materials endorses the **Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD)**, and has been listed as an official supporter of TCFD-aligned disclosures since September 2020.

This report also contains an index in accordance with the **Sustainability Accounting Standards Board (SASB)** framework. We have used the recommendations of the SASB Construction Materials Standard (Version 2018-10) regarding the most important sustainability topics.

Reporting methodology

This Annual and Sustainability Report refers to the financial year 2022.

The consolidation of the **ESG indicators** is based on the international accounting standards and the scope of consolidation used for the financial figures. Exceptions are marked accordingly.

Where corrections or restatements of ESG information from previous periods were made in the reporting period, this is disclosed accordingly.

For the first time, the specific net CO_2 emissions per tonne of cementitious material as the non-financial key performance indicator were audited with reasonable assurance for the 2022 financial year. This also applies to the alternative fuel rate and the clinker ratio.

The ESG indicators that have been subjected to an independent limited assurance engagement by the auditor are marked accordingly and the corresponding **Independent Practitioner's Report** is available.

Data collection & calculation methodologies

Methods and systems that have been defined across the Group are used to collect data at our business locations. Internal reporting and consolidation of the data take place via centralised electronic KPI data management systems at the Group; here, the key figures are checked for completeness and credibility. Uniform Group-wide definitions of all the relevant key figures, as well as process guidelines for the reporting processes, are available on the intranet.

Energy & CO_2 reporting

Heidelberg Materials applies the GCCA's "Sustainability Guidelines for the monitoring and reporting of CO_2 emissions from cement manufacturing" (Oct. 2019) as the basis of the energy and CO_2 reporting. The guideline is based on the CEN Standard EN 19694-3.

For direct CO_2 emissions (**Scope 1**) for the cement business line, process emissions as well as fuel-related emissions are considered. In alignment with the GCCA definitions, CO_2 emissions from using biomass as a fuel are considered climate neutral. For our aggregates business line we report our Scope 1 emissions based on the fuel consumptions on site and apply appropriate emission factors to derive the associated CO_2 emissions.

To calculate indirect emissions related to the consumption of electricity (**Scope 2**) for our cement and aggregates business lines we apply the Greenhouse Gas Protocol Scope 2 Guidance (2015) and report location-based emissions by making use of emission factors provided by the International Energy Agency (IEA).

For the other indirect emissions (**Scope 3**) we report in alignment with the recommendations of the GCCA and Cement Sector Scope 3 GHG Accounting and Reporting Guidance about the four most material categories (purchased materials, fuels, up- and downstream transportation and distribution). Emissions of purchased materials are based on the volumes of main raw materials we procure externally and covers our cement and ready-mix business lines. We apply emission factors from the GCCA EPD tool (based on Eco-Invent). Emissions of purchased fuels are reported for cement and aggregates business lines and are calculated with the latest Defra well-to-tank factors (UK Government GHG Conversion Factors for Company Reporting 2022). Upstream and downstream transport and distribution information is collected annually for all of our activities. By using transported volumes and – if necessary – estimations of distances travelled as well as emission factors from the GCCA EPD tool we derive the overall CO_2 emissions.

Alternative raw materials and fuels

We apply the "GCCA Sustainability Guidelines for co-processing fuels and raw materials in cement manufacturing" (Oct. 2019) to calculate the required performance indicators on alternative raw materials and fuels used in the production of cement and clinker.

Air emissions

Our reporting of air emissions is based on the "GCCA Sustainability Guidelines for the monitoring and reporting of emissions from cement manufacturing" (Oct. 2019). As outlined in the figures on measurement of emissions, most data is based on actual measurements. Only if no measurements are available, we use estimates, for example from past analysis.

Water

Water reporting for our cement business line is based on the "GCCA Sustainability Guidelines for the monitoring and reporting of water in cement manufacturing" (Oct. 2019), which is also aligned with the GRI requirements for the reporting on water withdrawal (GRI 303-3) and water discharge (GRI 303-4). The same method is also applied for our aggregates business line.

Waste

Generated waste is currently reported for our cement and aggregates business lines. We are guided by GRI standard 306: waste 2020 and distinguish between hazardous and non-hazardous waste generated. We split into waste sent to re-use, recovery, or recycling as well as to disposal. A more detailed breakdown is currently not possible.

Biodiversity

For our quarries we report on the proportion of quarrying sites located near an area of high biodiversity value with biodiversity management plan as well as those with an after-use plan. The reporting is based on the "GCCA Sustainability Guidelines for Quarry Rehabilitation and Biodiversity Management" (May 2020).

Health and safety

Our disclosed information on occupational Health and Safety is based on the "GCCA Sustainability Guidelines for the monitoring and reporting of safety in cement and concrete manufacturing" (Feb. 2020). Accident data is collected using a commercial H&S management software from Intelex. Each accident is recorded and analysed by nominated Safety Investigators and Approvers following the mandatory workflow defined in the software. Statistical accident data is extracted by the software based on raw data and linked with working hours reported by controllers.

Compliance

E-learning completion rates are calculated using data retrieved from the global Learning Management System. The system contains information for the different e-learning programmes about the people to whom the courses were assigned, when they completed the course or if it is still due for completion or already overdue and if completion happened within the preset deadline. Administrators of the Learning Management System can use reports to follow up on the numbers and calculate ratios.

Compliance incident statistics are based on data from our Case Management System where all reported compliance cases are documented on a global basis. This system includes cases reported via our SpeakUp tool and incidents reported through other channels such as e.g. emails, phone calls or letters. The case managers ensure that each case is documented including data that can be used for statistical analysis. Such statistical data includes the date of reporting, the country of origin, the incident type, the outcome of the investigation (whether substantiated or unsubstantiated) and information whether sanction measures and/or preventive measures were implemented. The Case Management System enables generating reports to analyse the statistical data.

Employees

The total employees represent the number of full-time equivalent (FTE) employees being on the payroll at the end of the reporting period. This includes white-collar as well as blue-collar employees. People who work part-time are counted partly with the resepective percentage. All permanent positions plus temporary positions are included.

Associations, initiatives, and networks

The following is a selection of our activities. We have singled out memberships and engagements that we consider to be of central strategic importance for the company as a whole, since they address current and future transformation activities in a significant way.

BirdLife International: Since 2011, we have been working together with the largest international nature conservation organisation, BirdLife International. The interaction with BirdLife International and our cooperation with its national partner organisations help us to minimise our environmental impact and promote biodiversity in our quarries and the surrounding areas.
www.birdlife.org

German Building Materials Association (bbs): As the umbrella organisation of the German building materials industry, the bbs represents the interests of the various sub-sectors and formulates policy and expert positions for this purpose. It is a member of the Federation of German Industries (BDI). Dr Dominik von Achten is the current bbs Chairman.
www.baustoffindustrie.de

CEMBUREAU: Through our memberships in national associations, we support the work of the European Cement Association (CEMBUREAU), which puts forward the industry's concerns in discussions and negotiations with the European Union and its institutions.
www.cembureau.eu

Concrete Sustainability Council (CSC): As a founding member of the Concrete Sustainability Council (CSC), we are involved in the ongoing development of a certification system for sustainably produced concrete. The goal of the CSC is to further increase the transparency of sustainable activities within the cement and concrete industry.
www.csc.eco

econsense – Forum for Sustainable Development of German Business: econsense, as a network and flagship initiative of global German companies, aims to promote sustainable development in business and to assume social responsibility collectively.
www.econsense.de/en/

GCCA Global Cement and Concrete Association (GCCA): As a founding member of the GCCA, we aim to further strengthen innovation and sustainability at a global level. The GCCA published the first global net zero roadmap in the industrial sector, thus helping to limit global warming to 1.5°C.
www.gccassociation.org

Global CCS Institute: The mission of the Global CCS Institute (GCCSI) is to facilitate and accelerate the deployment of CCS worldwide. Heidelberg Materials benefits from the GCCSI's expertise in regulatory and policy matters, which helps us to apply our own skills within the CCUS value chain at a more professional level.
www.globalccsinstitute.com

Associations, initiatives, and networks

Mission Possible Partnership – Concrete Action for Climate: Concrete Action for Climate (CAC) is a collaborative platform that aims to pave the industry's path to net-zero concrete by 2050. The initiative focuses on areas that require cross-industry collaboration, such as the demand for carbon-reduced products. The CAC is co-led by the World Economic Forum and the GCCA.
www.missionpossiblepartnership.org

Race to Zero: Heidelberg Materials is a signatory to Business Ambition for 1.5°C, a global initiative committed to reducing CO_2 emissions to net zero by 2050 at the latest. The company is therefore also part of the global, UN-backed Race to Zero campaign, which aims to create positive momentum for the transition to a low-carbon economy.
climatechampions.unfccc.int

Science Based Targets Network (SBTN): As a member of the corporate engagement program of the Science Based Targets Network (SBTN), we are contributing to the development of science-based targets for nature through feedback in particular in the water and land hub work areas.
www.sciencebasedtargetsnetwork.org

Society for Ecological Restoration (SER): As a business member of the global Society for Ecological Restoration (SER) a non-profit network dedicated to biodiversity conservation, climate change resilience, and ecological restoration, we contribute to the development of emerging standards on restoration in mining sites and share best practice and restoration success on our sites.
www.ser.org

Stiftung KlimaWirtschaft: The companies supporting the Stiftung KlimaWirtschaft (climate economy foundation) form a business network advocating progressive climate policy at Managing Board level. As a member of this network, we develop cross-sectoral approaches and policy concepts for a successful industrial transformation towards climate neutrality.
www.klimawirtschaft.org/english

UEPG: As an indirect member of the European Aggregates Association (UEPG), which represents the interests of the European aggregates industry in Brussels, we present our positions on aggregates to political decision makers.
www.uepg.eu

World Green Building Council: We are involved in the global umbrella organisation of the Green Building Councils, the World Green Building Council. The goal here is to jointly develop certification systems for sustainable construction and to make the design, construction, and operation of buildings more sustainable.
www.worldgbc.org

Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Governance

Disclosure focus area: Disclose the organisation’s governance around climate-related risks and opportunities

Disclosure	References
General information	The response strategy of Heidelberg Materials to climate change is based on a structured and comprehensive master plan that involves all relevant company stakeholders and resources. Our focus is on the step-by-step reduction of carbon emissions, with clear milestones. Our target is to achieve specific net CO_2 emissions of 400 kg per tonne of cementitious material by 2030 and to achieve net zero emissions by 2050 at the latest. The overall responsibility for the achievement of this commitment lies with the Managing Board and in particular with the Chief Sustainability Officer.
Describe the board’s oversight of climate-related risks and opportunities.	**CDP Questionnaire** (C1.1b) Pages 12–16, 106, 132–136, 158
Describe management’s role in assessing and managing climate-related risks and opportunities.	**CDP Questionnaire** (C1.2) Pages 15, 23, 106, 132–136

Strategy

Disclosure focus area: Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation’s businesses, strategy, and financial planning where such information is material.

Disclosure	References
General information	We see Heidelberg Materials as strongly positioned to play a key role in the transition to a low-carbon and climate-resilient economy. In the medium-term, we see an opportunity in the increased demand for durable and sustainable building materials for the construction of robust infrastructure protected against the physical effects of climate change. The increasing urbanisation trend and growing world population will also increase the demand for cement and concrete. Heidelberg Materials’ target is to achieve net zero emissions by 2050 at the latest. In addition, we aim to offer a product portfolio that fulfils all requirements of sustainability. We see this as an important prerequisite and at the same time as a great opportunity to increase the use of mineral-based building materials. By 2030, half of the Group revenue is to be generated with sustainable products and solutions. We expect an increased demand for sustainable products and are reviewing our entire product portfolio accordingly. We also consider it our responsibility to actively convince customers of the quality of CO_2-reduced products.

Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Disclosure	References
General information	**Selection of scenarios to model risks and assess opportunities** | | **Scenario 1: Optimistic** | **Scenario 2: Stabilisation** | **Scenario 3: Pessimistic** | Temperature assumptions: 1.5°C–2.0°C; 2.5°C–3.0°C; 4.0°C–5.0°C Key assumptions: – Strong climate policy – Increased globalisation; – Retreat from globalisation – Strong renewable incentives, but few mitigation policies; – Retreat from globalisation – Obstructive climate policy Emission-reduction models: RCP 2.6; RCP 4.5; RCP 8.5 Time horizon: 2030–2050; 2030–2050; 2030–2050 Pages 36–41, 46–48, 68–71, 105–108, 112–113, 146–150
Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long-term.	**CDP Questionnaire** (C2.2a) Pages 146–150
Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	**CDP Questionnaire** (C2.3a, C2.4a, C3.3, C3.4) Pages 24, 68–72, 103, 146–150
Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	**CDP Questionnaire** (C3.2a, C3.2b) Pages 34, 36–41, 69–76, 105–108, 149–150

Selection of scenarios to model risks and assess opportunities

	Scenario 1: Optimistic	Scenario 2: Stabilisation	Scenario 3: Pessimistic
Temperature assumptions	1.5°C–2.0°C	2.5°C–3.0°C	4.0°C–5.0°C
Key assumptions	– Strong climate policy – Increased globalisation	– Retreat from globalisation – Strong renewable incentives, but few mitigation policies	– Retreat from globalisation – Obstructive climate policy
Emission-reduction models	RCP 2.6	RCP 4.5	RCP 8.5
Time horizon	2030–2050	2030–2050	2030–2050

Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Risk management

Disclosure focus area: Disclose how the organisation identifies, assesses, and manages climate-related risks.

Disclosure	References
General information	Analysis of climate change risks is part of Heidelberg Materials' overall risk management approach. As part of this process, several potential risks have been identified that might significantly impact the company in the medium and long-term. According to the definition of the TCFD, these include physical as well as transitory risks. The process of identifying risks is performed annually for the whole Group and combines bottom-up reporting at country-level with a top-down global analysis of our physical risk exposure. At both levels, risks are assessed qualitatively and, wherever possible, supplemented with quantitative appraisals. Different time frames are required for the consideration of the business lines of Heidelberg Materials, depending on their investment intensity. Regarding climate risks, we have defined the following timelines: – **Short term (current–2025):** Short term relates to the regular business and financial planning routines as well as existing and readily foreseeable regulatory requirements. – **Medium term (2025–2030):** The medium term is defined as the time frame that goes beyond that of regular strategic planning, but for which a strategic roadmap exists. – **Long term (2030–2050):** Long term refers to any plans that exeed the 10-year time horizon. This includes investments in assets, research and development of new product lines, and strategic investments in new technologies, such as research into carbon capture, utilisation and storage (CCUS) as well as recarbonation.

Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Disclosure	**References**
General information	**Potential physical and transitory risks of climate change that might affect Heidelberg Materials** (see table below) **Potential climate opportunities that Heidelberg Materials could benefit from** Pages 149–150
Describe the organisation’s processes for identifying and assessing climate-related risks.	**CDP Questionnaire** (C2.2) Pages 103, 133–136, 146–150
Describe the organisation’s processes for managing climate-related risks.	**CDP Questionnaire** (C2.2) Pages 103, 133–136, 146–150
Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation’s overall risk management.	**CDP Questionnaire** (C2.2) Pages 103, 133–136, 146–150

Potential physical and transitory risks of climate change that might affect Heidelberg Materials

Risk category	**Type of risk**	**Potential impact**
Physical	Extreme weather situations	– Construction activities depend on moderate weather conditions; high levels of precipitation and extreme cold might decrease construction activities. – Extreme weather events may lead to production shutdowns or damaged assets.
	River flooding	– Impairment of assets; disruption of production and supply chain
	Droughts	– Water availability may lead to reduced production capacity
Transitory	Policy and legal risks	– Tightening of existing and future carbon regulations, for example changes in prices of cap-and-trade systems, may lead to cost disadvantages.
	Technology risks	– Key technologies, such as CCUS, require substantial investment, and success probability is still uncertain, which may lead to reduced (internal) capital availability.
	Market and reputational risks	– Changing consumer demands from concrete/cement to wood or steel may lead to loss of market share. – Change of investor preference towards less carbon-intensive industries and companies may increase financing costs.

Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Metrics and targets

Disclosure focus area: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material

Disclosure	References
Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process	**CDP Questionnaire** (C7, C8, C9) Pages 34–37, 105–108, 334–335
Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	**CDP Questionnaire** (C5.2, C6.1, C6.3, C6.5, C6.10) Pages 34–37, 105–108, 334
Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets	**CDP Questionnaire** (C4.1b, C4.2a, C4.2c) Pages 34–37, 71–72, 95–96, 105–108

Sustainability Accounting Standards Board (SASB) index

	2020	2021	**2022**	References and comments
Production by major product line				
EM-CM-000.A				
Cement and clinker, aggregates, ready-mixed concrete, asphalt				Pages 77–78, 331
Greenhouse gas emissions				
EM-CM-110a.1				
Gross global Scope 1 emissions (million metric tonnes CO_2-e)	68.4	69.5	65.9	Gross global Scope 1 emissions include the business lines cement and aggregates.
Percentage covered under emissions-limiting regulations	39%	47%	38%	
EM-CM-110a.2				
Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets				Pages 34–37, 72, 105–108
Air quality				
EM-CM-120a.1				
Air emissions of the pollutants: NO_x (excluding N_2O), SO_x, particulate matter (PM10) (metric tonnes)				Pages 108, 335
Dioxins/furans (miligramme)	4,140	3,380	4,933	
Volatile organic compounds (VOCs) (metric tonnes)	3,383	3,695	3,520	
Polycyclic aromatic hydrocarbons (PAHs) (metric tonnes)				We are currently not collecting data on PAHs globally.
Heavy metals (mercury) (kilogramme)	1,578	1,458	1,129	
Energy management				
EM-CM-130a.1				
Total energy consumed (terajoules)	351,384	363,226	347,068	Total energy consumed includes the business lines cement and aggregates. Definitions and consolidation for the business line cement are in accordance with the guidelines of the Global Cement and Concrete Association (GCCA). Volumes for Power Purchase Agreements (PPA) are below the materiality threshold and thus not included. Definition of renewables corresponds to the GCCA definition for biomass.
Percentage grid electricity	12.1%	12.2%	12.5%	
Percentage alternative	21.1%	21.7%	23.7%	
Percentage renewable	8.1%	9.1%	10.4%	

Sustainability Accounting Standards Board (SASB) index

	2020	2021	**2022**	References and comments
Water management				
EM-CM-140a.1				
Total fresh water withdrawn (million cubic metres)	54.8	54.2	55.0	
Percentage recycled				While most of our sites are equipped with water recycling technology, such as water circulation systems for cooling, we do not measure the amount of water we recycle.
Percentage water withdrawn in regions with High or Extremely High Baseline Water Stress	22.6%	27.7%	25.6%	
Percentage water consumed in regions with High or Extremely High Baseline Water Stress	25.6%	32.4%	30.2%	
Waste management				
EM-CM-150a.1				
Total amount of waste generated, percentage hazardous and recycled				Page 336
Biodiversity impacts				
EM-CM-160a.1				
Description of environmental management policies and practices for active sites				Pages 50–51, 108–110
EM-CM-160a.2				
Terrestrial acreage disturbed and percentage of impacted area restored				Extraction of resources as well as the restoration of quarries are dynamic processes. Currently we are not able to track the annual changes in disturbed and restored areas.
Workforce health & safety				
EM-CM-320a.1				
Total recordable incident rate (employees and contract employees)	1.25	1.16	1.05	Total recordable incident rate displayed per 200,000 hours worked (TCI FR).
Near miss frequency rate (employees and contract employees)	203	214	226	Heidelberg Materials defines a near miss or near hit as an event or situation that could have resulted in an injury, damage or loss but did not do so due to chance, corrective action and/or timely intervention. By analysing reported near hits we can recognise and address weaknesses before accident with injuries may happen (per 200,000 hours worked).
EM-CM-320a.2				
Number of reported cases of silicosis	3	1	1	We are using the International Classification of Diseases (ICD) to track occupational diseases. The provided numbers are for respiratory diseases including but not limited to silicosis.

Sustainability Accounting Standards Board (SASB) index

	2020	2021	**2022**	References and comments
Product innovation				
EM-CM-410a.1				
Percentage of products that qualify for credits in sustainable building design and construction certifications				Pages 42–45, 110–112 Quantitative data not yet reported. Our products qualify for credits in sustainable building design and construction certifications in different ways. Credits in sustainable construction schemes such as LEED, DGNB, and BREEAM can be achieved by products (cement, concrete, and aggregates) having an Environmental Product Declaration (EPD). We have such EPDs for selected products in many of our core markets such as Sweden, Germany, Italy, or the United States. Moreover, concrete certified according to a Responsible Sourcing Scheme such as BES 6001 or the Concrete Sustainability Council (CSC) may also be used for recognised credits. Such products are on offer in the Netherlands, the UK, Germany, Turkey, Belgium, the United States, Poland, and Spain. Given the wide range of our product portfolio, we are currently not able to quantify the exact percentage of the eligible products. At the same time, we see sustainable products as a core strategic focus and aim to achieve a share of 50% of our Group revenue coming from sustainable products and solutions. Across our key business lines, we currently achieve 34%.
EM-CM-410a.2				
Total addressable market and share of market for products that reduce energy, water, and/or material impacts during usage and/or production				Quantitative data not yet reported.
Pricing integrity & transparency				
EM-CM-520a.1				
Total amount of monetary losses as a result of legal proceedings associated with cartel activities, price fixing, and anti-trust activities				Pages 124–128, 144–146, 230–231

GRI content index

HeidelbergCement AG has reported in accordance with the GRI Standards for the period 1 January 2022 to 31 December 2022. For the Content Index – Essentials Service, GRI Services reviewed that the GRI content index is clearly presented, in a manner consistent with the Standards, and that the references for disclosures 2-1 to 2-5, 3-1 and 3-2 are aligned with the appropriate sections in the body of the report. This service was carried out on the German version of the report.

GRI 1 used
GRI 1: Foundation 2021

Applicable GRI Sector Standard(s)
None

GRI CONTENT INDEX ESSENTIALS SERVICE 2023

GRI Standard	Disclosure	Location	Omission (Requirement(s) omitted (Req), Reason (Reas), Explanation (E))
General disclosures			
The organization and its reporting practices			
GRI 2: General Disclosures 2021	2-1 Organizational details	19–20, 66–68, 367	
	2-2 Entities included in the organization's sustainability reporting	345	
	2-3 Reporting period, frequency and contact point	345, 357, 366-367	
	2-4 Restatements of information	345	
	2-5 External assurance	16, 66, 102, 334–345	
Activities and workers			
GRI 2: General Disclosures 2021	2-6 Activities, value chain and other business relationships	22, 66–68	
	2-7 Employees	120, 177, 198, 338–339	Req: Disclosures on employees are not broken down by employment status (temporary/permanent) Reas: Information not available/incomplete E: We are currently rolling out a global system as the basis for future data collection and reporting, and plan to start reporting the data most likely from financial year 2024.
	2-8 Workers who are not employees	59, 123–124	

GRI content index

GRI Standard	Disclosure	Location	Omission (Requirement(s) omitted (Req), Reason (Reas), Explanation (E))
Governance			
GRI 2: General Disclosures 2021	2-9 Governance structure and composition	155–168	
	2-10 Nomination and selection of the highest governance body	158–159	
	2-11 Chair of the highest governance body	15, 166	
	2-12 Role of the highest governance body in overseeing the management of impacts	11–16, 158	
	2-13 Delegation of responsibility for managing impacts	13–14, 23, 158	
	2-14 Role of the highest governance body in sustainability reporting	13–14, 16, 157–158	
	2-15 Conflicts of interest	15, 125–128, 157, 160	
	2-16 Communication of critical concerns	126, 132–133, 135	
	2-17 Collective knowledge of the highest governance body	14–16, 157–160	
	2-18 Evaluation of the performance of the highest governance body	158	
	2-19 Remuneration policies	246–247, 291–292, 298–302, 304–306, 319–322, 325	
	2-20 Process to determine remuneration	15, 292–293, 325	
	2-21 Annual total compensation ratio	293–294, 326–327	
Strategy, policies and practices			
GRI 2: General Disclosures 2021	2-22 Statement on sustainable development strategy	6–8, 11	
	2-23 Policy commitments	28, 64, 103–104, 125–126, 154–155	
	2-24 Embedding policy commitments	28, 64, 103–104, 124–128, 153–155	
	2-25 Processes to remediate negative impacts	104, 127–128, 230–231, 346	
	2-26 Mechanisms for seeking advice and raising concerns	25–26, 64, 104, 126–128	
	2-27 Compliance with laws and regulations	144–145, 230–231	
	2-28 Membership associations	25–26, 112, 347–348	
Stakeholder engagement			
GRI 2: General Disclosures 2021	2-29 Approach to stakeholder engagement	25–27, 60–61	
	2-30 Collective bargaining agreements	56, 120–121	

GRI content index

GRI Standard	Disclosure	Location	Omission (Requirement(s) omitted (Req), Reason (Reas), Explanation (E))
Material Topics			
GRI 3: Material Topics 2021	3-1 Process to determine material topics	24, 102–103	
	3-2 List of material topics	24, 345	
Biodiversity			
GRI 3: Material Topics 2021	3-3 Management of material topics	49–51, 108–110	
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	49, 110, 336, 346	Req: Details for each extraction site Reas: Not applicable E: This is not possible due to the large number of extraction sites.
	304-2 Significant impacts of activities, products, and services on biodiversity	50–51, 108–110	
	304-3 Habitats protected or restored	49–50, 108–110	Req: Details of each protected or restored habitat Reas: Not applicable E: This is not possible due to the large number of habitats.
Business excellence			
GRI 3: Material Topics 2021	3-3 Management of material topics	69–72	
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	78–89, 170, 177	
	201-3 Defined benefit plan obligations and other retirement plans	226–229	
	201-4 Financial assistance received from government	172, 181, 215	
Circularity and resource management			
GRI 3: Material Topics 2021	3-3 Management of material topics	42, 46–48, 112–113	
GRI 301: Materials 2016	301-1 Materials used by weight or volume	22, 336	Req: Information on materials used by weight or volume Reas: Restrictions due to a non-disclosure obligation E: This information is relevant to competition and is subject to confidentiality.
	301-2 Recycled input materials used	336	
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	48	
	306-2 Management of significant waste-related impacts	46–48, 74–75, 107, 110, 112	
	306-3 Waste generated	336, 346	

GRI content index

GRI Standard	Disclosure	Location	Omission (Requirement(s) omitted (Req), Reason (Reas), Explanation (E))
Climate change resilience and adaptation			
GRI 3: Material Topics 2021	3-3 Management of material topics	36–41, 105–108, 146–150, 349–353	
GRI 201: Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	146–150, 349–353	
Community engagement			
GRI 3: Material Topics 2021	3-3 Management of material topics	60–61	
GRI 203: Indirect Economic Impacts 2016	203-2: Significant indirect economic impacts	7–8, 68, 341	
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	25, 53, 60, 340–341	
CO_2 emissions			
GRI 3: Material Topics 2021	3-3 Management of material topics	36–41, 43, 74–75, 105–108	
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	334, 345	
	305-2 Energy indirect (Scope 2) GHG emissions	334, 345	
	305-3 Other indirect (Scope 3) GHG emissions	334, 345–346	
	305-4 GHG emissions intensity	108, 334	
	305-5 Reduction of GHG emissions	35, 105–106, 108, 334	
Customer satisfaction and engagement			
GRI 3: Material Topics 2021	3-3 Management of material topics	44–45	
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	45	
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	45	
Digital transformation			
GRI 3: Material Topics 2021	3-3 Management of material topics	45, 58, 70, 74, 140, 148–149	
Diversity, equality and inclusion			
GRI 3: Material Topics 2021	3-3 Management of material topics	53–54, 120–122	
GRI 202: Market Presence 2016	202-2 Proportion of senior management hired from the local community	120, 339	
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	120–122, 155–160, 339	
	405-2 Ratio of basic salary and remuneration of women to men	56	Req: Information on the ratio of basic salary and remuneration of women to men Reas: Information not available/incomplete E: We are currently working on the implementation of a new global HR system and a global job architecture to enable analyses of compensation data.
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	127–128, 346	

GRI content index

GRI Standard	Disclosure	Location	Omission (Requirement(s) omitted (Req), Reason (Reas), Explanation (E))
Emissions (SO_X, NO_X, dust, noise)			
GRI 3: Material Topics 2021	3-3 Management of material topics	105–108	
GRI 305: Emissions 2016	305-7 Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other significant air emissions	108, 335, 346	
Energy and fuels management			
GRI 3: Material Topics 2021	3-3 Management of material topics	74, 76, 105–108	
GRI 302: Energy 2016	302-1 Energy consumption within the organization	334–335, 345–346	
	302-3 Energy intensity	334	
	302-5 Reductions in energy requirements of products and services	334	
Ethical business conduct			
GRI 3: Material Topics 2021	3-3 Management of material topics	28, 124–128, 152–161	
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	124–127	
	205-2 Communication and training about anti-corruption policies and procedures	128, 341, 346	Req: Information on trained employees is not broken down by region and employee category Reas: Information not available/incomplete E: We do not consider a further breakdown to be relevant.
	205-3 Confirmed incidents of corruption and actions taken	128, 340, 346	
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	125, 144, 231	
Human capital			
GRI 3: Material Topics 2021	3-3 Management of material topics	53–58, 120–121	
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	120, 338	Req: Information on new employee hires and employee turnover by gender and age group Reas: Information not available/incomplete E: We are currently rolling out a global system as the basis for future data collection and reporting, and plan to start reporting the data most likely from financial year 2024.
GRI 402: Labor/Management Relations 2016	402-1 Minimum notice periods regarding operational changes	56, 120	

GRI content index

GRI Standard	Disclosure	Location	Omission (Requirement(s) omitted (Req), Reason (Reas), Explanation (E))
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	53, 339	Req: Information on average hours of training by gender and employee category Reas: Information not available/incomplete E: We are currently rolling out a global system as the basis for future data collection and reporting, and plan to start reporting the data most likely from financial year 2024.
	404-2 Programs for upgrading employee skills and transition assistance programs	55–57, 120, 339	
	404-3 Percentage of employees receiving regular performance and career development reviews	57, 121	
Human rights			
GRI 3: Material Topics 2021	3-3 Management of material topics	105, 125–128	
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	105, 127	
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	105, 127	
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	105, 127	
Innovation and technology			
GRI 3: Material Topics 2021	3-3 Management of material topics	38–41, 47, 72–76	
Occupational health and safety			
GRI 3: Material Topics 2021	3-3 Management of material topics	59, 122–124	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	123	
	403-2 Hazard identification, risk assessment, and incident investigation	122–124	
	403-3 Occupational health services	55–56, 123	
	403-4 Worker participation, consultation, and communication on occupational health and safety	56, 59, 123–124, 340	
	403-5 Worker training on occupational health and safety	123–124, 339, 346	
	403-6 Promotion of worker health	55–56, 59, 122–123	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	59	
	403-8 Workers covered by an occupational health and safety management system	59, 340	
	403-9 Work-related injuries	124, 340, 346, 355	
Responsible sourcing			
GRI 3: Material Topics 2021	3-3 Management of material topics	62–64, 103–105, 125, 127	

GRI content index

GRI Standard	Disclosure	Location	Omission (Requirement(s) omitted (Req), Reason (Reas), Explanation (E))
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	62–63, 103	
GRI 308: Supplier Environmental Assessment 2016	308-2 Negative environmental impacts in the supply chain and actions taken	64, 104–105	
GRI 414: Supplier Social Assessment 2016	414-2 Negative social impacts in the supply chain and actions taken	64, 104–105, 127–128	
Responsible water use			
GRI 3: Material Topics 2021	3-3 Management of material topics	49, 51–52, 141	
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	51–52, 141	
	303-2 Management of water discharge-related impacts	51–52	
	303-3 Water withdrawal	337–338, 346	
	303-4 Water discharge	337–338, 346	
	303-5 Water consumption	337–338	
Sustainable products and solutions			
GRI 3: Material Topics 2021	3-3 Management of material topics	42–44, 110–112	

Glossary

Aggregates
Aggregates in the form of sand, gravel and crushed rock are used principally for concrete manufacturing or for road construction and maintenance.

Alternative fuel rate
Proportion of alternative fuels in the fuel mix.

Alternative fuels
Combustible substances and materials used in place of fossil fuels in the clinker-burning process, such as used tyres, biomass or household waste.

Alternative raw materials
By-products or waste from other industries, whose chemical components make them suitable substitutes for natural raw materials. Alternative raw materials are used both in the production of clinker, the most important intermediate product in cement production, and as additives in cement grinding, in order to conserve natural raw material resources and reduce the proportion of energy-intensive clinker in cement, the end product.

Asphalt
Asphalt is manufactured from a mixture of graded aggregates, sand, filler and bitumen. It is used primarily for road construction and maintenance.

Biodiversity
Biodiversity or biological diversity is the genetic diversity within species, diversity between species, and diversity of ecosystems.

Blast furnace slag
Finely ground, glassy by-product from steel production. Additive for cement.

Cement
Cement is a hydraulic binder, i.e. a finely ground inorganic material that sets and hardens by chemical interaction with water and that is capable of doing so also under water. Cement is mainly used to produce concrete. It binds the sand and gravel into a solid mass.

Cementitious materials
Heidelberg Materials reports specific net CO_2 emissions in kg per tonne of cementitious material. In addition to cement, this includes materials with cement-like properties. Heidelberg Materials uses predominantly ground granulated blast furnace slag (by-product of the steel industry) as alternative raw material to replace clinker as far as possible.

Cement mill
Cement grinding is the final stage of the cement manufacturing process. In cement mills, the clinker is ground into cement, with the addition of gypsum and anhydrite, as well as other additives, such as limestone, blast furnace slag or fly ash, depending on the type of cement.

Circular economy
A circular economy is a model of production and consumption designed to preserve and regenerate. It is based on three principles: Prevention of waste and pollution, recycling of products and materials (at the level of their highest value) and regeneration of natural resources.

Circularity
Circularity is the compatibility of a material flow (e.g. materials or products) with the principle of circular economy.

Clinker (cement clinker)
Intermediate product in the cement production process that is made by heating a finely-ground raw material mixture to around 1,450° C in the cement kiln. For the manufacture of cement, the greyish-black clinker nodules are extremely finely ground. Clinker is the main ingredient in most cement types.

Clinker ratio
Proportion of clinker in cement.

Commercial Paper
Bearer notes issued by companies within the framework of a Commercial Paper Programme (CP Programme) to meet short-term financing needs.

Composite cement
In composite cements, a proportion of the clinker is replaced with alternative raw materials, usually by-products from other industries, such as blast furnace slag or fly ash. Decreasing the proportion of energy-intensive clinker in cement is of critical importance for reducing energy consumption and CO_2 emissions as well as for preserving natural raw materials.

Concrete
Building material that is manufactured by mixing cement, aggregates (gravel, sand or crushed stone) and water.

CCUS
CCUS stands for the capture, utilisation, and storage of CO_2.

EMTN programme
An EMTN (Euro Medium Term Note) programme represents a framework agreement made between the company and the banks appointed to be dealers. Heidelberg Materials has the option of issuing debenture bonds up to a total volume of €10 billion under its EMTN programme.

European Union Emissions Trading Scheme (EU ETS)
The European Union Emissions Trading Scheme (EU ETS) obliges companies or operators of emission-intensive industrial facilities to participate in European emissions trading. These companies must purchase certificates for their CO_2 emissions.

Fly ash
Solid, particulate combustion residue from coal-fired power plants. Additive for cement.

Full-time equivalents (FTE)
Proportion of alternative fuels in the fuel mix.

Grinding plant
A grinding plant is a cement production facility without clinker-burning process. Delivered clinker and selected additives, depending on the type of cement, are ground into cement. Grinding plants are particularly operated at locations where suitable raw material deposits for cement production are not available.

Leverage ratio
Ratio of net debt to result from current operations before depreciation and amortisation (RCOBD).

Net debt
The sum of all non-current and current financial liabilities minus cash and cash equivalents and short-term derivatives.

Net zero emissions
Reduction of our CO_2 emissions across the value chain in line with SBTi's 1.5 °C pathway, while neutralising residual emissions.

Ready-mixed concrete
Concrete that is manufactured in a ready-mixed concrete facility and transported to the building site using ready-mix trucks.

RCOBD/RCO
Result from current operations before depreciation and amortisation/result from current operations.

RCOBD margin
Ratio of result from current operations before depreciation and amortisation (RCOBD) to revenue.

ROIC
Return on Invested Capital.

Financial calendar 2023

10 May **Quarterly Statement January to March 2023**

11 May **Annual General Meeting 2023**

27 Jul **Half-Year Financial Report 2023**

3 Nov **Quarterly Statement January to September 2023**

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This report – in German and English –
is only available electronically on the Internet:
www.heidelbergmaterials.com.

There, you will also find the 2022 financial statements of HeidelbergCement AG and further information about Heidelberg Materials.

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Due to rounding, numbers presented in the report may not add up precisely to the totals provided.