HEIDELBERGCEMENT

Annual Report 2021

MATERIAL
TO BUILD OUR FUTURE

HeidelbergCement at a glance

Figures in €m	2017	2018	2019	2020	2021
Sales volumes					
Cement and clinker (million tonnes)	125.7	130.0	125.9	122.0	**126.5**
Aggregates (million tonnes)	305.3	309.4	308.3	296.3	**306.4**
Ready-mixed concrete (million cubic metres)	47.2	49.0	50.7	46.9	**47.4**
Asphalt (million tonnes)	9.6	10.3	11.3	11.0	**10.4**
Income statement					
Revenue	17,266	18,075	18,851	17,606	**18,720**
Result from current operations before depreciation and amortisation (RCOBD [1] [2])	3,297	3,100	3,580	3,707	**3,875**
Result from current operations (RCO [2] [3])	2,188	2,010	2,186	2,363	**2,614**
Additional ordinary result	-133	108	-178	-3,678	**481**
Financial result [2]	-418	-353	-375	-287	**-201**
Profit / loss for the financial year	1,058	1,286	1,242	-2,009	**1,902**
Group share of profit / loss	918	1,143	1,091	-2,139	**1,759**
Earnings per share in €	4.62	5.76	5.50	-10.78	**8.91**
Dividend per share in €	1.90	2.10	0.60	2.20	**2.40** [4]
Investments					
Investments in intangible assets and PP&E	1,035	1,061	1,183	969	**1,419**
Investments in financial assets [5]	243	663	131	98	**180**
Total investments	1,278	1,723	1,314	1,067	**1,599**
Cash flow					
Cash flow from operating activities	2,038	1,968	2,664	3,027	**2,396**
Free cash flow [6]			1,702	2,172	**1,187**
Balance sheet					
Equity (incl. non-controlling interests)	15,987	16,822	18,504	14,548	**16,659**
Balance sheet total	34,558	35,783	38,589	32,335	**33,711**
Net debt [7]	8,695	8,323	8,410	6,893	**4,999**
Ratios					
RCOBD [1] margin in %	19.1	17.2	19.0	21.1	20.7
Return on invested capital (ROIC) in %	7.2	6.9	6.5	7.9	**9.3**
Leverage ratio	2.64x	2.68x	2.35x	1.86x	**1.29x**
Non-financial figures					
Number of employees as at 31 December	59,054	57,939	55,047	53,122	**51,209**
Share of women first leadership level in %	11	12	10	16	**17**
Share of women second leadership level in %	11	13	14	16	**19**
Lost time injury frequency rate [8] [9]	1.8	1.7	1.5	1.6	**1.6**
Specific net CO_2 emissions (kg CO_2/t cementitious material) [9]	605	599	590	576	**565**
Alternative fuel rate in % [9]	20.8	22.0	24.0	25.7	**26.4**
Clinker ratio in % [9]	75.3	74.7	74.5	74.3	**72.9**

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) The Managing Board and Supervisory Board will propose to the Annual General Meeting on 12 May 2022 the distribution of a cash dividend of €2.40.
5) 2019 amount was restated due to reporting change.
6) Adjustment of definition as of 2019.
7) 2018 amount was restated due to adjusted net debt definition.
8) Number of accidents (with at least one lost working day) suffered by Group employees per 1,000,000 working hours.
9) Previous year figures are presented as published in the reporting year.

1 – To our shareholders

2 – Combined management report of HeidelbergCement Group and HeidelbergCement AG

3 – Corporate Governance[1)]

4 – Consolidated financial statements

5 – Additional information

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

1 To our shareholders

Dr Dominik von Achten, Chairman of the Managing Board

Dear Shareholders, Dear Employees, Customers and Friends of HeidelbergCement,

Following the slowdown of the coronavirus pandemic, we were shaken along with the rest of the world when Russia attacked Ukraine at the end of February this year. We are deeply worried and shocked by the ongoing violence against Ukraine. We at HeidelbergCement strongly condemn this attack on stability, security, and peace in Europe. We are concerned that people are losing their homes, their livelihoods, and in some cases even their lives.

As a company, we acted quickly. We support the Ukrainian population with, among others, financial, material, and medical donations, as well as accommodations. Our employees in Poland, Hungary, Romania, and Czechia have done a great job since the beginning of the Russia-Ukraine war. The willingness of our employees across the Group to donate is also enormous. This makes me very proud – and I would like to express my sincere thanks.

We feel a great responsibility to our local employees. However, in response to the war, we have decided to freeze all further investments in Russia. We are in constant exchange with our local employees to protect them and are monitoring the situation closely on a daily basis.

At the moment, we cannot foresee how further developments will affect HeidelbergCement. Currently, we do not expect any direct impact on our business activities, but we already feel the indirect effects of the significant increase in energy and fuel prices, especially in Europe, which will also be reflected in our financial figures.

Throughout 2021, concern for the welfare of our employees and their families has been a major theme as the coronavirus pandemic continued to impact our lives. At HeidelbergCement and our subsidiaries, we provided vaccinations for thousands of colleagues and their families, and we put extensive measures against the coronavirus in place. Based on our experience from 2020, we were very successful at keeping the effects of the pandemic on our business to a minimum in 2021.

Strong financial year 2021

The past year was characterised by two very different dynamics in the first and second half: global construction activity continued to grow strongly throughout the first half of the year, driven by government infrastructure programmes and favourable momentum in residential construction. From the third quarter onwards, costs increased significantly, especially for energy and raw materials. Despite these challenges, we successfully achieved excellent results in almost all figures for the 2021 financial year. We improved revenue by around 8 percent on a comparable basis to €18.7 billion, and the result from current operations increased by about 12 percent to €2.6 billion. The figures were thus in part significantly above our published forecast and the capital market expectations.

We achieved this excellent result together, as a worldwide HeidelbergCement team. My thanks must therefore go first and foremost to you, our more than 51,000 employees for your high level of commitment and outstanding dedication! You have all done an extraordinary job over the past year, of which I am very proud.

Good progress on our "Beyond 2020" strategy

Implementation of our "Beyond 2020" strategy, which we first presented in September 2020, continues to move forward with great progress. Portfolio management is one important pillar of this strategy. We are streamlining our country portfolio and prioritising the strongest market positions. Where we do not meet our return targets, we divest. Over the course of 2021, we consistently pursued this strategy with the sale of business activities in Kuwait, Greece, Spain, and Sierra Leone, as well as at the West Coast of the USA. At the same time, we completed acquisitions in Australia, Italy, Tanzania, and the northwestern United States to improve our presence in existing profitable markets with high returns.

Lighthouse projects drive CO_2 reduction

Addressing climate change and living up to our responsibility as a CO_2-intensive company remains our most important target – and we are making good progress toward climate neutrality. In 2021, we were able to reduce our specific net CO_2 emissions by a further 2 percent. Today, we already have products in our portfolio with an almost 70 percent lower carbon footprint.

To further advance our sustainability efforts, we signed the Business Ambition for 1.5°C in July 2021. The aim of this global initiative is to reduce CO_2 emissions to net zero by 2050 at the latest. We also joined the Race to Zero campaign of the United Nations Framework Convention on Climate Change.

Our CO_2 reduction and technology paths are clear: The first priority is to avoid emissions as much as possible. Concrete has the potential to become one of the most sustainable and versatile building materials over its entire life cycle, from production to recycling. This will be achieved by increasing energy efficiency, making greater use of alternative fuels and raw materials, optimising concrete mix recipes, and reducing primary raw material consumption through the use of recycled aggregates.

Over the coming years, we will use our technology leadership to scale new processes and launch innovative projects. The greatest challenge for cement production – and also the most powerful lever – lies in the raw material-related process emissions that have been unavoidable up to now. Thus, CO_2 capture, utilisation, and storage (CCUS) will be a central tool. We have lighthouse projects at an industrial scale that demonstrate the effectiveness of the technology.

In 2024, we will commission the world's first industrial-scale carbon capture facility at our cement plant in Brevik, Norway, which will reduce the CO_2 emissions of the produced cement by around 50 percent. By 2030, we will have already completed the conversion of our plant in Slite on the Swedish island of Gotland into the world's first climate-neutral cement plant, where we will capture up to 1.8 million tonnes of CO_2 per year. We are also pursuing other key CCUS projects in the UK and Canada: As part of the HyNet North West project, which aims to create the world's first low-carbon industrial cluster in the northwest of England and North Wales, we are planning to build a carbon capture facility at our Padeswood plant with the potential to capture up to 800,000 tonnes of CO_2 annually. In Edmonton, Canada, we are developing the first large-scale CCUS installation for the cement industry in North America in order to capture around 780,000 tonnes of CO_2 annually. Overall, our current CCUS projects are on course to eliminate at least 10 million tonnes of CO_2 emissions by 2030.

The coming years will be a litmus test for ambitious climate protection. Implementation is key! Transformation will only succeed if politics, business, and the public join forces to win the battle. HeidelbergCement is leading the way as a global driving force!

Digitalisation as a driver of growth and efficiency
Through our digitalisation projects, we continue to push ahead with the improvement of business processes. We are well on our way to achieving our 2025 target of more than 75 percent global sales coverage with HConnect – our digital flagship. HConnect improves processes at the customer interface and currently has 20,000 active users in twelve countries every month. With this technology, we are activating the digital potential in our core business lines and expanding into new growth opportunities in addition to our traditional revenue streams.

Based on our experience so far, we have also taken a major step toward driving digital transformation in the building materials industry by acquiring a minority stake in Command Alkon – which maintains the world's largest installed software base in our segment of the building materials industry. Command Alkon's product range perfectly complements our own, and together we are working on more transparent industry standards for seamless connectivity, better solutions to customers' everyday needs (e.g. digital ticketing), faster innovation, and acceleration of sustainability efforts.

Changes to the Managing Board
In 2021, we put even more focus on the two transformational core topics of sustainability and digitalisation, appointing Dr Nicola Kimm as Chief Sustainability Officer and Dennis Lentz as Chief Digital Officer to the Managing Board. Thus, we underscore our commitment to industry leadership on the path to climate neutrality and our drive to become the first industrial technology group in the building materials sector. Another new member of the HeidelbergCement AG Managing Board is René Aldach, our Chief Financial Officer. He succeeds Dr Lorenz Näger, who has taken a well-deserved retirement after almost two decades of outstanding service to our company. I warmly welcome all three colleagues and look forward to working with them in trustful collaboration.

Strong focus on shareholder return
We continue our progressive dividend policy. For the 2021 financial year, the Managing Board and the Supervisory Board will propose to the Annual General Meeting a dividend of €2.40 per share. This corresponds to a payout ratio of 30 percent in proportion to the Group share of adjusted profit. This means that you, our shareholders, will once again participate in our good result.

In 2021, for the first time in HeidelbergCement's history, we also launched a share buyback programme with a total volume of up to €1 billion. The first of three tranches was completed in December 2021, and the second tranche started in March 2022. The attractive dividend and ambitious share buyback programme clearly demonstrate our strong commitment to shareholder return.

Dear shareholders, customers, suppliers and business partners, employee representatives, and employees: I wish to express my heartfelt thanks, also on behalf of my colleagues on the Managing Board members, for your continuing support throughout the past financial year.

Together we have laid the foundations for a successful future. We continue to grow profitably in our business – whether we succeed in this depends in particular on the further price development for energy and raw materials. At the same time, we will work to significantly accelerate HeidelbergCement's transformation towards sustainability and digitalisation, and differentiate ourselves from the competition. Our clear target is to take the leading role in our industry. I look forward to shaping these challenges together with you.

Yours sincerely,

Dr Dominik von Achten
Chairman of the Managing Board

Heidelberg, 24 March 2022

Fritz-Jürgen Heckmann, Chairman of the Supervisory Board

Report of the Supervisory Board

Ladies and Gentlemen,

The 2021 business year continued to be characterised by the effects of the coronavirus pandemic and significantly increased energy and raw material costs. The company showed great adaptability to the changing environment and was able to further reduce costs and adjust its sales prices. In 2021, the company was able to increase both revenue and result from current operations to record levels. At the same time, net debt was reduced by €1.9 billion to €5.0 billion. The Supervisory Board would like to thank the Managing Board and employees for this performance, which is by no means a matter of course. This solid performance allows HeidelbergCement to be confident about the future.

The Supervisory Board fully shares the Managing Board's view that the company can only achieve its financial targets if it plays a leading role in shaping the sustainable transformation of our industry, exploits the opportunities offered by digitalisation, and generates added value for society. For this reason, HeidelbergCement defines success not only in terms of achieving economic targets but also in terms of how we get there.

In order to remain competitive in terms of sustainability and quality, the company must advance its industry leadership in the development of innovative new materials and technologies for sustainable construction. At the same time, conventional technologies have to be optimised to further reduce the ecological footprint of cement and concrete production.

HeidelbergCement will continue to invest intensively in the future-oriented fields of digitalisation and sustainability. The Supervisory Board supports the Managing Board's strategy and is convinced that the company will be able to overcome the challenges of the future on this basis.

In order to accelerate the transformation of the company and steer the global teams in the right direction, the Supervisory Board decided in 2021 to firmly establish the core topics of sustainability and digital transformation in the company's organisation with new Managing Board positions.

Consultation and monitoring

Once again, the Supervisory Board firmly supported the company's development during the past financial year and discussed 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. Additionally, it received regular and detailed reports, both in writing and verbally, about the intended business policy, strategy and planning, the progress of businesses and the financial situation, the risk situation and risk management, and compliance. In particular, the Managing Board agreed 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 in all decisions of fundamental importance to the Group. Investment projects and financing matters requiring authorisation were presented by the Managing Board and discussed before decisions were made. The Supervisory Board is satisfied 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 an effective monitoring system that is capable of recognising at an early stage any developments that could jeopardise the survival of the Group. The Supervisory Board has also had this certified by the auditor. Furthermore, it is satisfied as to the effectiveness of the compliance programme, which guarantees Group-wide compliance with the law 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. Outside the scheduled meetings and without the participation of the Managing Board, 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. In addition, the Chairman of the Supervisory Board was in regular contact with the Chairman of the Managing Board outside the scheduled meetings. In summary, it can be stated that the Supervisory Board has duly fulfilled the duties incumbent upon it under the law, the Articles of Association, the Rules of Procedure, and the German Corporate Governance Code.

The plenary session of the Supervisory Board convened at ten meetings during the reporting year. The Audit Committee met five times. Six meetings of the Personnel Committee took place. Some of the meetings were conducted as face-to-face sessions and others took place as videoconferences. There was also a meeting of the Nomination Committee. 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. Members of the Supervisory Board and its committees are listed in the Corporate Governance chapter.

The average attendance rate at the ten plenary sessions of the Supervisory Board in February, March (two meetings), May (three meetings), July, September (two meetings), and November was 100 %. The participation rate at the committees' meetings held in the reporting year was 98 %.

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

Supervisory Board member	Number of Supervisory Board and committee meetings	Participation	Participation rate
Fritz-Jürgen Heckmann, Chairman of the Supervisory Board [1]	21	21	100 %
Heinz Schmitt, Deputy Chairman of the Supervisory Board [2]	21	19	90 %
Barbara Breuninger [2]	15	15	100 %
Birgit Jochens [2]	16	16	100 %
Ludwig Merckle [1]	22	22	100 %
Tobias Merckle [1]	10	10	100 %
Luka Mucic [1]	21	21	100 %
Dr Ines Ploss [2]	16	16	100 %
Peter Riedel [2]	15	15	100 %
Werner Schraeder [2]	21	21	100 %
Margret Suckale [1]	22	22	100 %
Prof. Dr Marion Weissenberger-Eibl [1]	11	11	100 %

1) Shareholder representative
2) Employee representative

Separate preliminary meetings of the employee representatives were held in connection with the Supervisory Board meetings. The Supervisory Board also met regularly without the Managing Board.

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

The sessions in the first half of 2021 dealt, among other things, with the auditing and approval of the 2020 annual financial statements and consolidated financial statements, including the non-financial statement, the approval of the 2021 operating plan, and preparations for the 2021 Annual General Meeting, which was held on a purely virtual basis once again because of the 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 the status of net debt as well as with corporate governance issues.

The Supervisory Board placed particular emphasis on closely accompanying and supporting the Managing Board in the implementation of the "Beyond 2020" Group strategy. Various aspects of this strategy were not only the subject of the Supervisory Board's annual strategy meeting in September but were also dealt with at all plenary sessions. The Supervisory Board placed particular focus on the further development and implementation of the company's sustainability targets. In connection with the implementation of the Group strategy, the Supervisory Board and its Personnel Committee also worked intensively on the future composition of the Managing Board, which was finally expanded to include the two responsibility areas of sustainability and digital transformation, and appointed Dr Nicola Kimm (Sustainability) and Dennis Lentz (Digitalisation) as members of the Managing Board with effect from 1 September 2021.

At several meetings, the Supervisory Board also discussed with the Managing Board the major investments, divestments, and portfolio optimisations affecting the strategic targets of profitable growth of HeidelbergCement and a further improvement of the balance sheet structure. Another topic discussed was the Managing Board's planned launch of a share buyback programme. The Supervisory Board supported the Managing Board's plans in this regard.

In the reporting year, the Audit Committee dealt extensively with the further development of the company's corporate governance and risk management, the effectiveness of the compliance management system, and the company's data security. The future impact of the German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz, LkSG) was also discussed by the Audit Committee. In addition, the Managing Board regularly reported to the Supervisory Board and the Audit Committee on the company's measures to achieve an even more sustainable business model, 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. HeidelbergCement 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. It 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 2020 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 2021 financial year, the preparation of the Supervisory Board's proposal to the 2021 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 – issuing the audit assignment to PwC. In this context, it defined the points of focus for the 2021 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 Chairman of the Audit Committee is Mr Luka Mucic. Mr Mucic is regarded as a financial expert pursuant to section 100(5) of the German Stock Corporation Act (Aktiengesetz, AktG) 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. The Supervisory Board is of the opinion that, in addition to Mr Mucic, Mr Ludwig Merckle also has expertise in the areas of accounting and auditing as a result of his professional activity and his long-standing membership of the Audit Committee of Heidelberg-Cement AG; Mr Ludwig Merckle is also a member of the Audit Committee.

In addition to the expansion of the Managing Board described above, the meetings of the Personnel Committee covered, among other things, the preliminary discussion and recommendation to the Supervisory Board regarding the determination of the variable Managing Board remuneration for the 2020 financial year, as well as the definition of parameters for the variable Managing Board remuneration in the year 2021 and in the years 2021 to 2023, respectively. Finally, the Personnel Committee assured itself that all members of the Managing Board have carried out the required individual investment in HeidelbergCement shares as part of the Managing Board remuneration system.

At the time of my last election to the Supervisory Board by the Annual General Meeting in May 2019, I had already announced, that I would resign from my position following the conclusion of the 2022 Annual General Meeting. Furthermore, Tobias Merckle has decided for personal reasons to resign as a member of the Supervisory Board, also at the end of the Annual General Meeting 2022. The Nomination Committee therefore met once in 2021 to discuss possible successor candidates. No decision has yet been made regarding a specific proposal to the Supervisory Board. The intensive assessment as well as the selection and nomination of the candidates to be proposed to the 2022 Annual General Meeting for election took place in three Nomination Committee's meetings held in February and March 2022.

During the reporting year, there were no potential conflicts of interest of any Supervisory Board member when dealing with topics within the Supervisory Board. There were also no consulting or other contracts for services or work between any member of the Supervisory Board and the Group in the 2021 reporting year.

Corporate Governance

The declaration of compliance in the reporting year was submitted by the Managing Board on 12 February 2021 and by the Supervisory Board on 22 February 2021. The declaration of compliance for the current year was submitted by the Supervisory Board on 31 January 2022 and by the Managing Board on 11 February 2022. The complete text can be found in the section Declaration of compliance pursuant to section 161 of the AktG in the Corporate governance statement chapter. The declaration of compliance is made permanently available to the shareholders on the Group'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 committees 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 goals stated in the Code and the competence profile 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 in the Managing Board to at least one woman for the period from 1 July 2020 to 30 June 2025. With the appointment of Dr Nicola Kimm as a member of the Managing Board as of 1 September 2021, this target was achieved early. The Supervisory Board also welcomes and supports the Managing Board's goal of further increasing the proportion of women in management positions in the first and second leadership levels below the Managing Board. As at 31 December 2021, the proportion of women in leadership positions in Germany at the first and second level below the Managing Board was 17 % and 19 %, respectively. The proportion of women in the total workforce in Germany as a reference point for the target figures is still being used. This means that the Managing Board's goal of increasing the proportion of women in Germany to 15 % for each of the two management levels below the Managing Board by the end of June 2022 has been achieved. The proportion of women in the total workforce in Germany was 19 % in 2021.

With regard to the remuneration structure for the members of the Managing Board for the 2021 financial year, details 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 be found here. The Supervisory Board considers the remuneration appropriate if it reflects adequately the management performance and value creation for the company and for the owners of the company. The basis for appropriate remuneration is a well-structured and transparent remuneration system. HeidelbergCement's remuneration system was developed by taking into account the interests of the company itself and of its owners and by consulting external remuneration experts. In the view of the Supervisory Board, it guarantees appropriate remuneration of the Managing Board. In addition, according to the recommendations of the German Corporate Governance Code, a payment cap was introduced in 2011. For the management component 2019-2021, the targets for earnings before interest and taxes (EBIT) and return on invested capital (ROIC) were significantly exceeded. For the capital market component 2018-2021, the price of the HeidelbergCement share did not beat the performance of the benchmark indices DAX and MSCI World Construction Materials Index over the four-year period of the long-term bonus plan 2018-2020/2021. The HeidelbergCement share price, adjusted for dividend payments and changes in capital, decreased by 22 % over the four-year period.

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 2021. These training courses cover topics that are particularly relevant to the company and the work of the Supervisory Board – for example, with regard to the selection of suitable investment projects, the ongoing development of the company's antitrust law compliance system, and the company's risk management system. 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.

With the measures 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, the content of the audit, and the costs were discussed in detail with the auditors, PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt am Main. In January 2022, the Managing Board informed the Supervisory Board about the preliminary, unaudited key figures for the 2021 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 2021, 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 their audit. Then, the Supervisory Board discussed the financial statements 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 official 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 of HeidelbergCement Group as at 31 December 2021 as well as the combined management report of HeidelbergCement AG and HeidelbergCement 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 €2.40 per share (previous year: 2.20).

Personnel matters and a note of thanks
As already mentioned above, the Supervisory Board has appointed Dr Nicola Kimm and Mr Dennis Lentz as new members of the Managing Board with responsibility for the areas of sustainability and digital transformation, respectively.

In addition, Dr Lorenz Näger has decided, by mutual consent of the Supervisory Board, to take his well-deserved retirement after more than 17 years as Chief Financial Officer for HeidelbergCement. On behalf of the entire Supervisory Board, I would like to thank Dr Näger for his special commitment and very successful work for the company. He played a key role in successfully shaping HeidelbergCement for almost two decades. During his tenure, HeidelbergCement's revenue and results almost tripled, and the free cash flow almost quadrupled. The Supervisory Board wishes Dr Näger all the best for the future.

The Supervisory Board has appointed René Aldach as Chief Financial Officer as the successor to Dr Näger with effect from 1 September 2021. In Mr Aldach we have an internationally experienced manager from among our own ranks taking over this role. The Supervisory Board is convinced that Mr Aldach will continue the successful work of Dr Näger and wishes him all the best for this demanding task.

Furthermore, as already mentioned, Tobias Merckle has decided for personal reasons to resign as a member of the Supervisory Board at the end of the Annual General Meeting 2022. The Supervisory Board and I personally regret this decision, we would like to thank Mr Merckle for his dedicated and expert work on the Supervisory Board and his valuable contribution to the success of our company.

There were no other changes in the composition of the Managing Board and Supervisory Board. The Supervisory Board wishes the new members of the Managing Board much success in fulfilling their duties, which are very important for the transformation of the company.

In conclusion, the Supervisory Board would like to thank all members of the Managing Board and all employees of the Group once again for their high level of commitment and their performance for the Group in the 2021 financial year.

Heidelberg, 23 March 2022

For the Supervisory Board

Yours sincerely,

Fritz-Jürgen Heckmann
Chairman

Managing Board

Dr Dominik von Achten

René Aldach

Kevin Gluskie

Hakan Gurdal

Ernest Jelito

Dr Nicola Kimm

Dennis Lentz

Jon Morrish

Chris Ward

Dr Dominik von Achten

Chief Executive Officer, appointed until January 2025
Born in Munich (Germany), aged 56 years. Studies in law and economics at the German universities of Freiburg and Munich. Member of the Managing Board since 2007 and Chairman of the Managing Board since 1 February 2020; in charge of Communication & Investor Relations, Strategy & Development/M&A, Human Resources incl. Health & Safety, Internal Audit, Legal, and Compliance.

René Aldach

Chief Financial Officer, appointed until August 2024
Born in Neuwied (Germany), aged 43 years. Studies in business administration at the Westfälische-Wilhelms-Universität Münster (Germany). Since 2004 at HeidelbergCement, Chief Financial Officer since 2021; in charge of Corporate Finance, Data Governance, Procurement, Reporting Controlling & Consolidation & Data Hub, Shared Service Center, Tax, Treasury, and Insurance & Risk.

Kevin Gluskie

Group area Asia-Pacific, appointed until January 2024
Born in Hobart (Australia), aged 54 years. Studies in civil engineering at the University of Tasmania (Australia) and MBA of the University of Sydney. He joined Pioneer (acquired by Hanson in 2000) in 1990. Member of the Managing Board since 2016; in charge of the Asia-Pacific Group area and the Competence Center Readymix.

Hakan Gurdal

Group area Africa-Eastern Mediterranean Basin, appointed until January 2024
Born in Istanbul (Turkey), aged 54 years. Studies in mechanical engineering at the Yildiz Technical University in Istanbul and MBA International Management of the University of Istanbul. He joined Çanakkale Çimento (today part of the joint venture Akçansa) in 1992. Member of the Managing Board since 2016; in charge of the Africa-Eastern Mediterranean Basin Group area and HC Trading.

Ernest Jelito

Group area Northern and Eastern Europe-Central Asia, appointed until June 2023
Born in Poland, aged 63 years. Studies in chemistry at the AGH University of Science and Technology in Krakow (Poland). Since 1982 at HeidelbergCement. Member of the Managing Board since 2019; in charge of the Northern and Eastern Europe-Central Asia Group area and the Competence Center Cement.

Dr Nicola Kimm

Chief Sustainability Officer, appointed until August 2024
Born in Canada, aged 52 years. Studies in chemical engineering and ecology at the universities of Calgary and Alberta and PhD in economics & business engineering from the Karlsruhe Institute of Technology, Germany. Chief Sustainability Officer since 2021; in charge of Environmental Social Governance (ESG) and Research & Development.

Dennis Lentz

Chief Digital Officer, appointed until August 2024
Born in Filderstadt (Germany), aged 40 years. Studies in business administration at the University of Regensburg, the INCAE Business School in Costa Rica and the HHL Leipzig Graduate School of Management. Since 2010 at HeidelbergCement. Chief Digital Officer since 2021; in charge of Digitalisation and Information Technology.

Jon Morrish

Group area Western and Southern Europe, appointed until January 2024
Born in Shrewsbury (United Kingdom), aged 51 years. Studies in biochemistry at the University of Leeds and MBA of the Cranfield School of Management. He joined Hanson in 1999. Member of the Managing Board since 2016; in charge of the Western and Southern Europe Group area and International Associations (e.g. GCCA, CEMBUREAU).

Chris Ward

Group area North America, appointed until August 2023
Born in Fargo, North Dakota (USA), aged 49 years. Studies in mining engineering at the University of Missouri-Rolla. Since 1996 at HeidelbergCement. Member of the Managing Board since 2019; in charge of the North America Group area and the Competence Center Materials.

Business Highlights

Successful development

HeidelbergCement has improved all key figures and achieved strong growth in the 2021 results. Find more on ↗ pages 31 f.



Changes to the Managing Board

With the new Managing Board responsibilities for sustainability and digitalisation, we are continuing to drive the transformation of the Group forward. Find more on ↗ page 14 and ↗ page 24.

Portfolio optimisation continued

HeidelbergCement sold business activities in Kuwait, Sierra Leone, on the West coast of the USA and strengthens its position in the Pacific Northwest of the USA. Find more on ↗ **pages 32 f.** and ↗ **page 43.**

HeidelbergCement launches a share buyback programme

The first share buyback programme of HeidelbergCement with a total amount of up to €1 billion started on 9 August. Find more on ↗ **page 21** and ↗ **page197**.

Transformation Highlights

Our world faces unprecedented environmental and societal challenges. Sustainability and digitalisation are essential enablers to address these challenges. As a leader in building materials, we at HeidelbergCement play a decisive role in transforming our industry to meet current and future needs.

The launch of our company strategy "Beyond 2020" marked the start of our transformation journey. Our purpose "Material to build our future" sets the direction. Our two key transformational topics sustainability and digitalisation are embedded front and center in our strategy.

Addressing climate change is one of our most important ambitions. We are committed to meet the Paris climate agreement's goal of keeping the global temperature rise well below 2°C and work towards a net-zero society. The key pillars in our Sustainability Commitments 2030 are emission reductions through conventional levers and carbon capture, utilisation, and storage (CCUS), circular economy, responsible land use, water conservation, occupational health and safety, as well as social responsibility.

Sustainability is integrated in our day-to-day operations. This has allowed us to make good progress in 2021 with contributions from all over the world: we further reduced our carbon emissions through improvements in our product mix, decreasing the clinker ratio, the increased use of alternative fuels with more biomass, and greater use of green energy sources. To meet the needs of our customers, we launched many more sustainable products in our markets throughout the world.

When it comes to digitalisation, we set forth a clear ambition: to become the first industrial tech company in the sector. We are in an ideal position to achieve this ambition with our deep customer and user understanding, our in-house product design and development teams, and a cloud-based modern tech stack. Additionally, we will leverage digital to help solve the biggest challenges of our times, with a clear priority of supporting our sustainability efforts.

We are looking forward to accelerating our transformation path on sustainability and digitalisation together with our customers and our partners throughout the value chain.

Dr Nicola Kimm
Chief Sustainability Officer

Dennis Lentz
Chief Digital Officer

HeidelbergCement signed the "Business Ambition for 1.5°C" and joined the UN "Race to Zero" campaign

We want to be the industry leader on the road to climate neutrality. HeidelbergCement is committed to reducing CO_2 emissions to net zero by 2050 at the latest.
Find more on ↗ **page 55.**

Carbon capture, utilisation, and storage projects move forward

With these projects, HeidelbergCement aims to make further progress towards climate neutrality and thus reduce the carbon footprint of the building materials industry.
Find more on ↗ **page 29** and ↗ **page 56.**

Expansion of sustainable, local product portfolios

We are committed to sustainably produced concrete – along the entire value chain.
Find more on ↗ **page29** and ↗ **page 58.**

German Innovation Award for first 3D-printed house

HeidelbergCement supplied the building material for 3D printing. With this manufacturing process, houses can be built faster, more economically, and more sustainably.
Find more on ↗ page 31 and www.heidelbergcement.com

HeidelbergCement and partners build digital ecosystem for building materials industry

The combination of Command Alkon's innovative product offerings, Thoma Bravo's extensive software and operational experience, and HeidelbergCement's deep expertise and global presence is expected to further digitalise the building materials industry.
Find more on ↗ page 27.

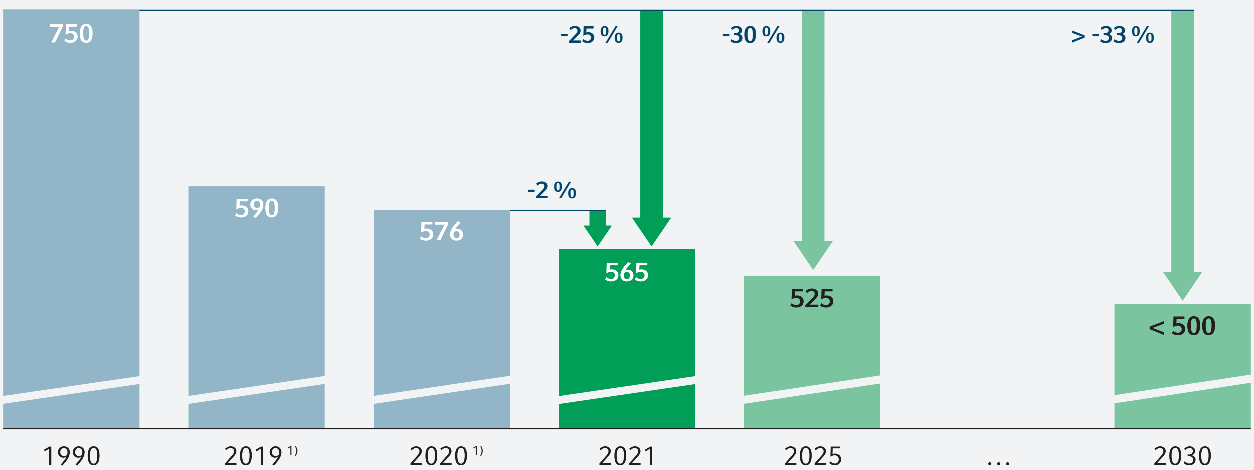
New Code of Business Conduct as the basis for our actions

In our revised Code of Business Conduct, the importance of human rights and sustainability aspects in particular have been emphasised even more strongly. In addition, we have introduced a uniform Group standard for health care in the areas of protection against dust, noise, and vibrations.
Find more on ↗ pages 53 f. and ↗ page 86.

EU Commission approves code of conduct for species protection

The code of conduct helps EU member states to take biodiversity protection into account in their national laws and provides a consistent approach to maximising biodiversity in quarries.
Find more on ↗ pages 57 f.

Specific net CO_2 emissions (kg CO_2/t cementitious material)



1) Figures are presented as published in the reporting year.

HeidelbergCement in the capital market

Overview

In Germany, the HeidelbergCement 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 share is listed in the German benchmark index DAX.

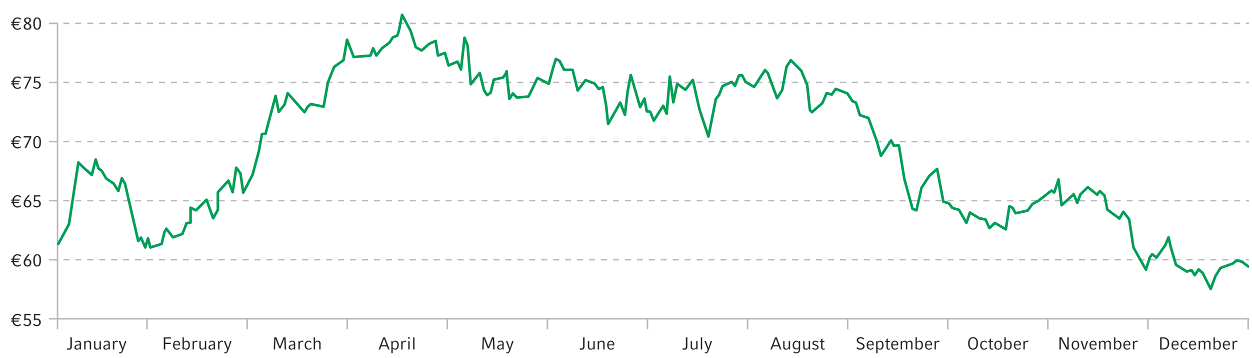
Our share ranks among the most important building materials shares in Europe. Besides the DAX, it is also included in other indices, such as the S&P Global 1200 Construction Materials Index and the STOXX Europe 600 Construction & Materials Index. Our stock is also listed in the sustainability indices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

Development of the HeidelbergCement share

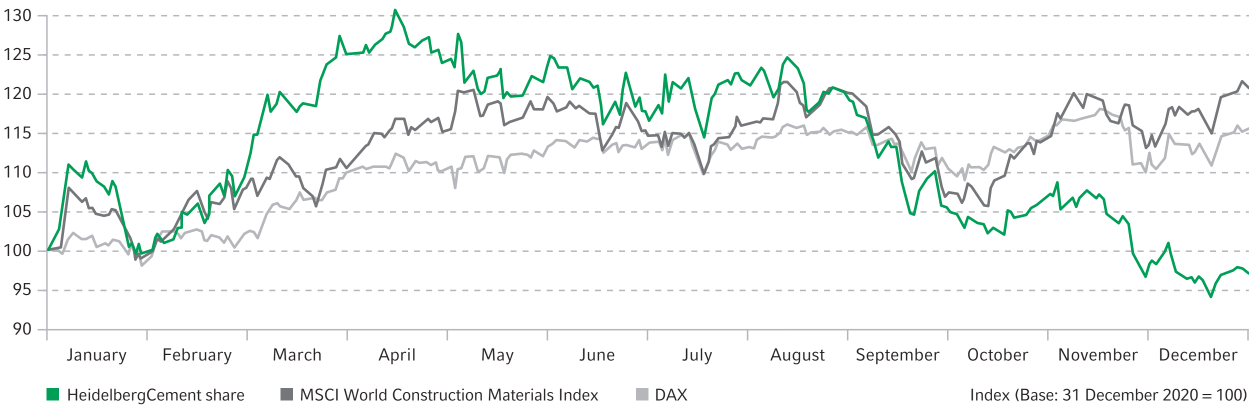
The development of the HeidelbergCement share price in 2021 was significantly influenced by market sentiment in connection with the impact of high energy and rising CO_2 prices on the company's earnings position. The price of the HeidelbergCement share developed positively in the first half of the year as a result of the strong operational development and the implementation of the "Beyond 2020" strategy, reaching a peak of €80.44. With the increase in energy costs in the second half of the year, the share price declined and reached an annual low of €57.52 on 20 December 2021. The share closed at €59.52 at the end of the year. Compared with the end of 2020, the HeidelbergCement share price fell by 2.8 %. The MSCI World Construction Materials Index recorded an increase of 21.5 % and the DAX grew by 15.8 % during the same period.

At the end of 2021, HeidelbergCement's market capitalisation amounted to €11.8 billion (previous year: 12.1).

Performance of the HeidelbergCement share in 2021 based on daily closing prices



Development of the HeidelbergCement share compared to MSCI World Construction Materials Index and DAX in 2021



Development of the HeidelbergCement share (ISIN DE0006047004, WKN 604700)	
€	2021
Year-end share price 2020	**61.22**
Highest share price (16 April 2021)	**80.44**
Lowest share price (20 Dec. 2021)	**57.52**
Year-end share price 2021	**59.52**
Equity per share on 31 Dec. 2021	**84.43**
Market value on 31 Dec. 2021 (€ '000s)	**11,809,749**
Change compared with 31 Dec. 2020	
HeidelbergCement share	**-2.8 %**
MSCI World Construction Materials Index	**+21.5 %**
DAX	**+15.8 %**

Earnings per share

During the past financial year, HeidelbergCement launched a share buyback programme for the first time in the company's history, with a volume of up to €1 billion and a term ending on 30 September 2023. The 5,324,577 shares repurchased within the first tranche correspond to approximately 2.68% of the share capital and were initially held as treasury shares. In January 2022, all shares that were acquired within the first tranche were cancelled which led to a reduction in the total number of shares to 193,091,900. Earnings per share in accordance with IAS 33 for the 2021 financial year was €8.91 (previous year: -10.78). Earnings per share adjusted for the additional ordinary result and the non-recurring deferred tax effects in connection with the sale of the business activities in the West region in the USA amounts to €7.91 (previous year: 6.88) (see Earnings position section). The calculation of the earnings per share pursuant to IAS 33 is shown in the following table. To determine the average number of shares, additions are weighted in proportion to time.

Earnings per share according to IAS 33	2020	2021
Group share of profit / loss in €m	-2,139.2	**1,759.0**
Number of shares in '000s (weighted average)	198,416	**197,308**
Earnings / loss per share in €	-10.78	**8.91**
Net income / loss from continuing operations in €m – attributable to the parent entity	-2,066.9	**1,804.5**
Earnings / loss per share in € – continuing operations	-10.42	**9.15**
Net loss from discontinued operations in €m – attributable to the parent entity	-72.3	**-45.5**
Loss per share in € – discontinued operations	-0.36	**-0.23**

Dividend

HeidelbergCement pursues a progressive dividend policy with the aim of increasing the dividend annually, or at least keeping it stable. In view of the positive business development, the Managing Board and Supervisory Board will propose to the Annual General Meeting the distribution of a dividend of €2.40 per HeidelbergCement share.

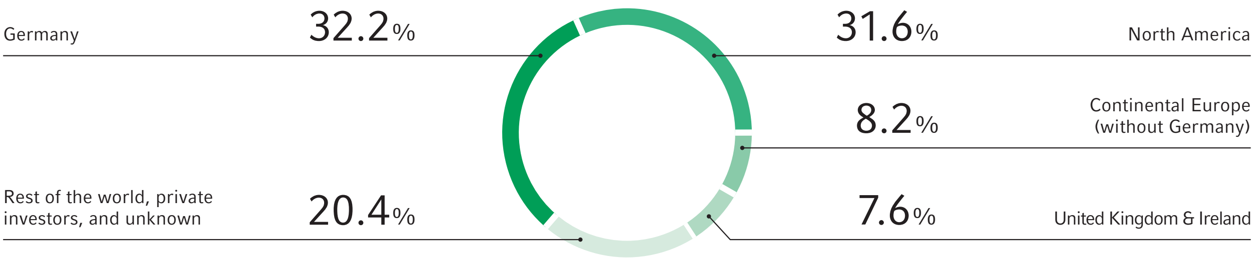
Dividend key figures	2017	2018	2019	2020	2021
Dividend per share in €	1.90	2.10	0.60	2.20	**2.40** [1]
Dividend yield [2] in %	2.3	3.0	1.2	2.8	**4.0**
Group share of profit in €m [3]	917.7	1,143.0	1,090.0	1,365.1	**1,560.6**
Total dividend amount in €m [4]	377.0	416.7	119.0	436.5	**462.5**
Payout ratio in % [4]	41.1	36.5	10.9	32.0	**29.6**

1) To be proposed to the Annual General Meeting on 12 May 2022
2) Dividend per share/share price on the day of the Annual General Meeting; for the 2021 financial year: dividend per share/share price at the end of the financial year
3) 2020 and 2021 amount: Group share of adjusted profit (see Earnings position section)
4) On the basis of the shares entitled to dividend on 20 March 2022.

Shareholder structure

A study conducted at the end of 2021 showed that the proportion of North American investors had risen in comparison with the previous year, while the proportion of investors from continental Europe (excluding Germany) had declined. The investor base has shifted slightly towards growth-focused investors. In December 2021, investors from Germany formed the largest investor group at 32.2 %, followed by investors from North America at 31.6 %, continental Europe excluding Germany at 8.2 %, and the United Kingdom and Ireland at 7.6 %.

Geographical distribution of shareholders (as of December 2021)



Shareholder structure	
(Date of the voting rights notification)	**31 Dec. 2021**
Ludwig Merckle (2 November 2021) via Spohn Cement Beteiligungen GmbH, Zossen/Germany	**26.73 %** [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]
The Capital Group Companies, Inc., Los Angeles/USA (20 April 2021)	**3.07 %**
Black Creek Investment, Toronto/Canada (12.11.2021)	**3.01 %**

1) Thereof 25.01 % pursuant to section 34 of the German Securities Trading Law (Wertpapierhandelsgesetz, WpHG) (Instruments) and 1.71 % 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 2021	595,249	198,416,477
31 December 2021	**595,249**	**198,416,477**

Ratings

Details of HeidelbergCement's 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 on our website **https://www.heidelbergcement.com/en/rating-und-rankings.**

Investor Relations

In 2021, our investor relations work mainly focused on fostering existing investor relations, as well as attracting new, long-term investors. Another point of focus was on active contact with ESG investors and analysts.

During the reporting year, we met more than 240 investors at virtual conferences, roadshows, as well as one-on-one and group discussions. Besides the business figures, the topics of the events and discussions were, in particular, the Group strategy with regard to portfolio management and the transformational topics of sustainability and digitalisation, as well as the company's financial management. Our progress towards carbon neutrality was discussed intensively. Price developments in the energy markets were another area of focus. The investor relations team also maintained regular contact with analysts in 2021. The number of analysts covering HeidelbergCement remained unchanged at 29 at the end of the reporting year.

HeidelbergCement 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 Group and our share.

2 Combined management report of HeidelbergCement Group and HeidelbergCement AG

Due to rounding, numbers presented in the Annual Report may not add up precisely to the totals provided.

Relevant changes in reporting

This combined management report contains the management reports of the HeidelbergCement Group and HeidelbergCement AG. The statements apply equally to the HeidelbergCement Group and HeidelbergCement AG. For information on HeidelbergCement AG, 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. Since the 2021 business year, the disclosures in accordance with EU Taxonomy Regulation (EU) 2020/852 have also been included here.

With the mandatory application of the 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), HeidelbergCement has decided to leave the remuneration report as part of the management report and to have its content audited by the auditor. The remuneration report can be found in the Corporate Governance chapter.

In 2021, there were no other relevant changes in reporting. Unless expressly indicated otherwise, all statements and figures refer to the continuing operations of HeidelbergCement. Acquisitions and disposals of business lines are also explained in the Notes in sections 5.1 Business combinations and 5.2 Divestments.

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.

Fundamentals of the Group

Business model

HeidelbergCement is one of the world's largest building materials companies 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.

Our core activities include the production and distribution of cement, aggregates, ready-mixed concrete, and asphalt. Furthermore, HeidelbergCement offers services such as worldwide trading especially in cement and clinker by sea.

Products
Our core products cement, aggregates (sand, gravel, and crushed rock), 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 100% clinker, there are so-called composite cements, in

Organisational structure

HEIDELBERGCEMENT

Western and Southern Europe	Northern and Eastern Europe-Central Asia	North America	Asia-Pacific	Africa-Eastern Mediterranean Basin	Group Services
Belgium, France, Germany, Italy, Netherlands, Spain, United Kingdom	Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Czechia, Denmark, Estonia, Georgia, Greece, Hungary, Iceland, Kazakhstan, Latvia, Lithuania, Norway, Poland, Romania, Russia, Sweden, Slovakia	Canada, USA	Bangladesh, Brunei, China, India, Indonesia, Malaysia, Singapore, Thailand Australia	Benin, Burkina Faso, DR Congo, Egypt, Gambia, Ghana, Liberia, Morocco, Mozambique, South Africa, Tanzania, Togo Israel, Turkey	

Finance

Sustainability

Digital Transformation

Functional responsibilities: Cement, Aggregates, Ready-mixed concrete-asphalt, Service-joint ventures-other 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 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 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 less than 100 km. Consequently, we have local production sites in more than 50 countries in which we offer building materials.

We operate 130 cement plants (plus 19 as part of joint ventures), more than 600 quarries and aggregates pits as well as around 1,410 ready-mixed concrete production sites worldwide. In total, the Group employs 51,209 people at around 2,570 locations on five continents. There are additionally around 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 (see organisational structure for allocation of countries). 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. In the business lines of cement and aggregates, we report on the essential raw materials that are required for the manufacture of downstream activities like ready-mixed concrete and asphalt, which are combined in the third business line. The fourth business line, service-joint ventures-other, primarily covers the activities of our joint ventures. It also includes building products that are only manufactured in a few countries.

Business processes

HeidelbergCement 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, obtaining mining concessions and environmental certifications, the construction of manufacturing facilities in cooperation with external service providers, as well as the actual production of building materials, including the extraction of raw materials and the maintenance of the facilities.

Impact of the business model on non-financial aspects

As of 1 December 2021, the Sustainability Office was established under the direction of Dr Nicola Kimm, Chief Sustainability Officer. In taking this step, we are pursuing our goal of leading the change in the construction industry. We are driving the path to sustainable construction and carbon neutrality while applying high standards of social and environmental responsibility. By doing so, we aim to create a more sustainable world for our customers, stakeholders, and society.

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.

Because HeidelbergCement is a manufacturing company, occupational health and safety is a priority. 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.

As we usually produce locally, we also create local jobs in rural areas and make a contribution in the communities to which our locations belong.

HeidelbergCement is committed to responsible corporate governance, which includes respect for human rights as well as zero tolerance for corruption and antitrust violations.

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

External factors of influence

The most significant external factors influencing the economic development of the HeidelbergCement Group are weather conditions, economic and population growth, as well as the development of the regulatory environment and the competition in the markets in which we operate.

Strategy

"Material to build our future"
With its building materials and solutions, HeidelbergCement has been contributing to global progress for approximately 150 years. The corporate 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 corporate purpose and the four culture principles are integral to the Group strategy "Beyond 2020".

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 action areas and targets
Our strategy is based on various action areas. We aim to simplify and continuously improve our core business in the three areas of business excellence, portfolio management, as well as people and organisation. Meanwhile, the innovation topics of sustainability and digital transformation have an overarching role. This is underpinned by responsible capital allocation.

We aim to achieve our strategic corporate goals by concentrating on these areas. The key performance indicators with which we measure our business success include the result from current operations (RCO), the return on invested capital (ROIC), and the specific CO_2 emissions. You can find more information on the key performance indicators and targets relevant for control in the chapter Control system and indicators.

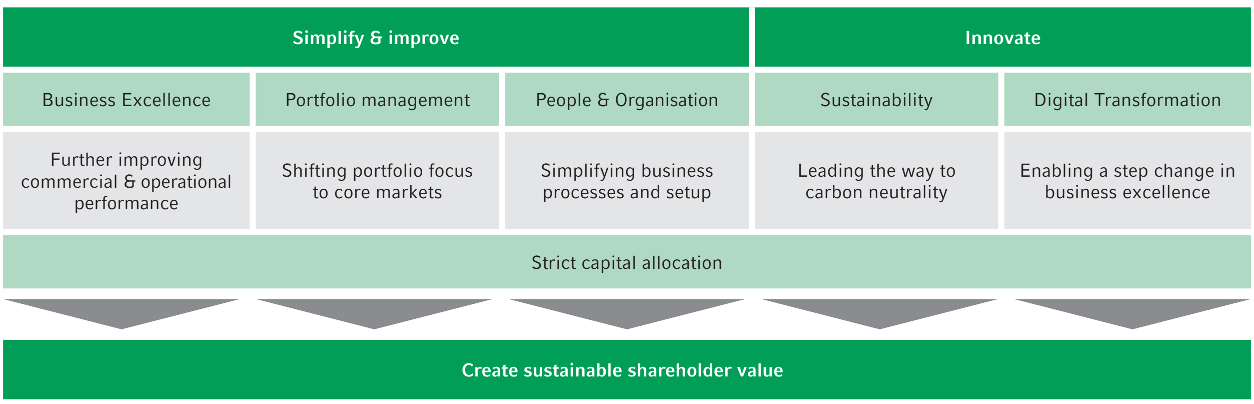
Beyond 2020 – strategic framework

Business excellence
In a market with heavily standardised products, customer focus and service quality are crucial in order to successfully market our products and services. By further developing our product and customer portfolio, we are striving for organic growth in line with our climate protection goals. In particular, we rely on the market knowledge and entrepreneurial spirit of our local management. Sustainable products and services play a special role in improving margins.

The basis and prerequisite for business excellence is a culture of continuous improvement. We compare performance both internally and in relation to competitors, in order to identify improvement potential. In production, a "Global Operating Model" enables the business lines cement, aggregates, and ready-mixed concrete-asphalt to standardise processes and achieve additional efficiency gains.

Portfolio management
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.

People and organisation
HeidelbergCement 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



objectives 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. 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. In 2021, separate Managing Board responsibilities were established for the strategic transformation topics of sustainability and digitalisation. 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 HeidelbergCement. The aim is to create a high-performance and sustainable organisation throughout the Group.

Sustainability

Environmental and social targets and good corporate governance (Environmental Social Governance, ESG) are integrated alongside economic targets into our Group strategy and the remuneration systems of our management. The fundamental principles of our sustainability strategy are set out in the Sustainability Commitments 2030 (see Non-financial statement chapter). We treat natural resources – the foundation of our business – responsibly and are actively involved in the communities surrounding our locations. This is also reflected in the newly created ESG governance structure, which was introduced in connection with the sustainability targets (see Non-financial statement chapter).

Our ambitious climate protection goals have a special strategic role to play. We want to be the industry leader when it comes to achieving carbon neutrality. We want to significantly reduce our CO_2 emissions by using proven techniques and measures such as maximising the use of alternative fuels, optimising the product mix, or improving the efficiency of our plants. We aim to be carbon neutral by 2050 at the latest. To achieve this, however, the existing techniques and measures alone are not sufficient. We are therefore intensively researching and testing several new technologies such as the capture, utilisation, and storage (CCUS) of CO_2 (see Research and development section).

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. The CO_2 component is set up as a multiplier, that is multiplied by the target achievement of the company's financial targets. This underlines the strategic relevance of our climate protection targets.

We see the increasing importance of resource efficiency and the circular economy as an opportunity to develop new business models. HeidelbergCement 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.

Digital transformation

Throughout our entire value chain, from raw materials mining, production, and logistics to the interface with the customers, digitalisation plays a crucial role. HeidelbergCement has set itself the target of becoming the leading technology group in the building materials industry. By introducing digital solutions, we intend to significantly increase our efficiency and reduce costs in production and administration. Our digital transformation strategy is centered on the three digital pillars HConnect, HProduce, and HService. While HConnect aims to cover more than 75 % of our global sales volume via digital interfaces to customers by 2025, HProduce and HService will focus primarily on improving efficiency and reducing costs.

By acquiring 45 % of the shares – subject to official approval – in Command Alkon, the world's leading provider of comprehensive supply chain technology solutions for building materials, HeidelbergCement will contribute to the digital transformation in the building materials industry. Together, we will develop the digital ecosystem of the future for the building materials industry and participate in the creation of value as an anchor investor.

Capital allocation

Our entrepreneurial activity is accompanied by a consistent allocation of capital.

With net investments of up to €1.2 billion per year, we have reached the required level of investment to operate our production facilities efficiently and to meet market requirements.

We make investments with a focus on improving our margins and meeting our sustainability targets. We are continually developing our company 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 HeidelbergCement's intensified focus on shareholder return.

Control system and indicators

Components and functionality of the control system

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

The control system at HeidelbergCement 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 individual operational plans 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 financial status 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 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 taxes over a period of five years.

With its permanent investment grade credit rating, HeidelbergCement aims 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.

Financial targets and management indicators

The key financial performance indicators for HeidelbergCement 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.

Key financial and non-financial performance indicators

Indicator	Target	Term
RCO	Slight rise	**2022**
ROIC	Clearly above 8 %	**2025**
CO_2 emissions	< 525 kg CO_2/t cementitious material	**2025**[1]

1) Target of < 500 kg CO_2/t cementitious material by 2030

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.

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 goal is to achieve a ROIC of 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. You will find the calculation of ROIC 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 goal of reducing our ecological footprint across the Group is at the forefront of all operational processes. By taking the specific CO_2 emissions into account in management remuneration, the Managing Board has defined this as key non-financial performance indicator. By 2025, we want to reduce the carbon footprint of our cement products by 30 % compared with 1990, to a target value of less than 525 kg CO_2 per tonne of cementitious material. By 2030, we want to achieve a further reduction to less than 500 kg CO_2 per tonne of cementitious material

Leading indicators

HeidelbergCement's core business is in standardised mass products that are generally ordered at short notice. Suppliers of such products are generally 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 HeidelbergCement is to develop innovative products, new product formulations, and process improvements, in order to minimise the use of energy, CO_2 emissions, and hence costs.

Focus and intensity of our research and development activities

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

- Innovative concrete systems: The main priority is the development and improvement of binders and concretes with optimised properties and innovative functionalities. In 2021, we focused on further developing 3D concrete printing technology.

- 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 with concrete: We are working on innovative recycling technologies that will make it possible to completely reuse waste concrete in fresh concrete. We are also researching processes to incorporate CO_2 in our products by means of carbonation, which allows us to use building materials for CO_2 storage.

- Development of new technologies for CO_2 reduction: We are raising the proportion of biomass fuels, exploring the use of hydrogen, and increasing the electrification of our processes. We are developing projects for carbon capture, utilisation, and storage (CCUS).

  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.

Organisation and fields of activities in the area of R&D and innovation

Our global competence centers Competence Center Cement (CCC), Competence Center Materials (CCM), Competence Center Readymix (CCR), as well as the Global Research & Development (GRD) and Technologies & Partnerships teams pool the knowledge in our Group and make it available to all operating units.

Technology and innovation

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.

Similarly, the CCM supports the aggregates business area 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. In addition, the CCM offers training and further training.

The CCR, a comparable organisation for the ready-mixed concrete business line, focuses on the continuous optimisation of raw materials and logistics costs and of the profit margin.

Expenses for research and development

Total expenses on research and development amounted to €123.6 million (previous year: 120.0) in the reporting year, corresponding to 0.7 % of Group revenue. The following table shows a breakdown of expenses for the last five years for each field of activities.

Expenses for research and development

€m	2017	2018	2019	2020	2021
Central R&D and innovation [1]	21.9	18.3	15.3	13.4	**12.8**
Technology and innovation	61.7	64.0	61.6	52.3	**50.7**
Customer-related development and technical service	57.4	63.4	56.7	54.3	**60.1**
Total	141.0	145.7	133.5	120.0	**123.6**

1) Including capitalised expenses

Expenses for the development of basic technologies are shown under Central R&D and innovation. Expenses for process innovations can be found in 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 as well as new composite cements. In 2021, capitalised development costs totalled €0.8 million (previous year: 1.0), which corresponds to around 0.7 % of total expenses on research and development.

Employees in research and technology

In the 2021 financial year, a total of 1,024 people (previous year: 1,031) were employed in research and development. The personnel breakdown and development over the last five years is shown in the following table.

Employees in research and development					
	2017	2018	2019	2020	2021
Central R&D and innovation	127	109	97	91	**75**
Technology and innovation	348	357	342	309	**298**
Customer-related development and technical service	661	690	644	631	**651**
Total	1,136	1,156	1,083	1,031	**1,024**

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 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.

Major projects for the preservation of resources, recycling, and CO_2 capture

Use of alternative energies

To reduce HeidelbergCement's carbon footprint and increase the use of alternative fuels, we initiated the Alternative Fuel Master Plan in 2018. Information on the progress in the use of alternative fuels in the reporting year is available in the Non-financial statement chapter.

Cements with lower proportions of clinker

We have made further progress in the development of cements with less clinker, thereby achieving a reduction in both CO_2 emissions and costs. 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.

Incorporation of CO_2 into concrete

Throughout its entire service life, concrete binds CO_2 from the air to form limestone. 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. As part of this project, a pilot installation for optimised concrete recycling was commissioned near Berlin in mid-2021.

Capture, utilisation, and storage of CO_2

The world's first large-scale facility for carbon capture 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 and storage (CCS) 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 to scale up the amine technology so that 100 % of the cement plant's CO_2 emissions can be captured and stored. The cement plants in Edmonton (Canada), Padeswood (United Kingdom), and Slite (Sweden) have made particularly good progress with their feasibility studies.

We are planning a carbon capture facility at our Padeswood cement plant in the United Kingdom. In cooperation with the government-sponsored consortium HyNet North West, it will be connected to the planned CO_2 transport and storage system. This project will be implemented using hydrogen as an energy source. A CCS feasibility study is already being conducted at the site to establish a clear basis for planning and provide a cost estimate for the next phase.

The first phase of the LEILAC project in Lixhe, Belgium, was completed in 2021. 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 consortium and the EU have been met. HeidelbergCement has carried out a feasibility study together with the Australian technology company Calix and a European consortium to build a facility four times as large as the pilot installation in Lixhe. It will be integrated into the Hanover plant in Germany. This study aims to develop new solutions in terms of fuel flexibility, heat requirements, and CO_2 purity.

Another method of carbon capture uses oxyfuel technology. Together with three other European cement manufacturers, HeidelbergCement 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.

HeidelbergCement continues to work on optimising the technology to convert CO_2 into microalgae for the manufacture of fish food and other animal feed. In cooperation with Omega Green, we are already producing 50,000 kg of dried microalgae annually on a 1 ha area at our Moroccan cement plant in Safi. Preparations are under way to market the algae that we produce.

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

Our areas of development include among others cement- and concrete-based construction technologies. The special mortar i.tech 3D, a product for 3D printing concrete, has been licensed by the building supervisory authorities. A single-family house and a multi-family residential unit have already been printed as pilot projects in Germany.

2021 economic report

Evaluation of the economic situation by Group management

The 2021 business year was a very good year for HeidelbergCement, despite all the challenges. The effects of the coronavirus pandemic did not significantly affect construction activities and thus the demand for our building materials. The positive market dynamics in many of HeidelbergCement's key markets led to an overall good development of sales volumes. Sales volumes increased in all business lines in comparison with the previous year.

Correspondingly, revenue increased by 6.3 %. Although energy prices rose significantly, particularly in the second half of the year, the result from current operations increased by 10.6 %.

The optimisation of the portfolio was successfully continued. In particular, the sale of the business activities in the West region in the USA led to a profit of € 482 million. The profit for the financial year was €1,902 million (previous year: net loss of €-2,009 million).

ROIC and the leverage ratio were further improved significantly.

In July 2021, HeidelbergCement launched a share buyback programme with a total volume of up to €1 billion. The first tranche of the programme, amounting to €350 million, was completed on 2 December 2021.

The Managing Board considers HeidelbergCement's operational and financial development in the 2021 business year to be successful.

Economic environment

General economic conditions

2021 was still dominated by the coronavirus pandemic, which affected the global economy and international trade to a lesser extent than in the previous year. Supply chain problems, high inflation, especially in respect of energy costs, and the consequences of the rapid spread of the Omicron virus variant slowed the global economic recovery in the second half of the year.

In Europe, the economy recovered over the course of 2021 from the pandemic-related stagnation of the previous winter. In its January 2022 forecast, the International Monetary Fund (IMF) expects an increase in GDP for the eurozone of 5.2% in 2021. France and Italy in particular should develop positively. Germany's economy continued its recovery in the course of summer and is expected to have grown by 2.7%. In the United Kingdom, the IMF expects GDP to increase by 7.2%.

In the USA, the economy was hardly affected by the pandemic at the beginning of the year, but weakened from autumn onwards due to an increase in the incidence of infections. According to the IMF, the US economy is expected to have grown by 5.6 % overall in 2021.

The emerging countries of Asia and Africa developed better than in the previous year also on account of China's rapid recovery (expected growth of 8.1 %). 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.

In 2021, the value of the euro showed a growing picture, rising in particular against the US dollar, the Indonesian rupiah, and the Indian rupee. Meanwhile, the value of the euro fell against the Australian dollar, the Canadian dollar, the British pound, and the Moroccan dirham.

Increased fuel costs led to considerable price rises for most energy sources (electricity, diesel, etc.) in many countries. Electricity prices increased compared with pre-pandemic levels as a result of a number of factors, including significantly higher CO_2, coal, and natural gas prices.

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 production benchmarks, as long as they are affected by the risk of production being shifted abroad (carbon leakage). Every company has to surrender enough emission certificates to cover its total emissions for the preceding financial year by a compliance deadline in April. In EU ETS, if a company does not have enough emission certificates by the compliance deadline due to increased production, it must purchase additional certificates – or face heavy penalties. All of HeidelbergCement's cement production facilities in Europe are part of the EU ETS.

The adoption of the EU climate protection programme "Fit for 55" (Green Deal) in 2021 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. After an initial significant price drop at the beginning of the coronavirus pandemic to around €15 per tonne of CO_2, by early 2021 the prices had recovered to over €30. They then rose to €90 at times over the course of 2021, before reaching around €75 per tonne of CO_2 at the end of the year. HeidelbergCement is still standing by its intention not to sell surplus emission rights, but to keep them for future use within the fourth trading period.

Development of sales volumes

In 2021, the impact of the coronavirus pandemic did not significantly affect construction activity and thus demand for our building materials. The positive market dynamics in many of HeidelbergCement's key markets led to good development of sales volumes during the reporting year. With the exception of asphalt, sales volumes rose overall in comparison with the previous year and developed differently in the individual Group areas.

Consolidation effects resulted from divestments as part of the optimisation of our portfolio. On 24 January 2021, we sold our cement and ready-mixed concrete activities in Kuwait. In the USA, we sold our cement, aggregates, ready-mixed concrete, and asphalt operations in the West region on 1 October 2021. In Sierra Leone, we disposed of our cement business on 29 November 2021.

In 2021, cement and clinker sales volumes rose by 3.7 % to 126.5 million tonnes (previous year: 122.0). With the exception of Africa-Eastern Mediterranean Basin, where deliveries remained at the previous year's level, all Group areas recorded growth in sales volumes. The strongest increase was recorded by Western and Southern Europe, followed by Asia-Pacific. Excluding changes to the scope of consolidation, cement and clinker sales volumes in 2021 were 4.6 % above the previous year.

At 306.4 million tonnes (previous year: 296.3), sales of aggregates were 3.4 % higher than the previous year's level. On a like-for-like basis – i.e. excluding consolidation effects – sales volumes increased by 4.4 %. Deliveries of aggregates were above the previous year's level in all Group areas. Western and Southern Europe recorded the strongest growth.

Ready-mixed concrete sales volumes rose slightly by 0.9 % to 47.4 million cubic metres (previous year: 46.9). Excluding consolidation effects, the increase amounted to 2.5 %. While deliveries decreased in Asia-Pacific and as a result of consolidation in North America, sales volumes in the other Group areas were above those of the previous year.

Asphalt deliveries decreased by 5.8 % in the reporting year to 10.4 million tonnes (previous year: 11.0). Excluding consolidation effects, they remained at the previous year's level. Sales volumes in Western and Southern Europe were significantly higher than in the previous year. However, they declined in the other Group areas. Africa-Eastern Mediterranean Basin recorded the heaviest losses.

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

Sales volumes

	2020	2021	Change	On a like-for-like basis [1]
Cement and clinker (million tonnes)	122.0	**126.5**	+3.7 %	+4.6 %
Aggregates (million tonnes)	296.3	**306.4**	+3.4 %	+4.4 %
Ready-mixed concrete (million cubic metres)	46.9	**47.4**	+0.9 %	+2.5 %
Asphalt (million tonnes)	11.0	**10.4**	-5.8 %	0.0 %

1) Excluding consolidation effects

Earnings position

Group revenue increased by 6.3 % in comparison with the previous year to €18,720 million (previous year: 17,606). Excluding consolidation and exchange rate effects, the increase amounted to 8.0 %. Revenue growth resulted primarily from price effects and positive market dynamics in many key markets of HeidelbergCement. Changes to the scope of consolidation of €220 million and exchange rate effects of €74 million had a negative impact on revenue.

In the reporting year, material costs increased by 12.7 % to €7,305 million (previous year: 6,483). This rise resulted in particular from higher costs of energy. Excluding consolidation and exchange rate effects, material costs went up by 15.4 %. The material cost ratio rose from 36.8 % to 39.0 %. The balance of other operating expenses and income was 5.3 % above the previous year's level at €-4,875 million (previous year: -4,628). Excluding exchange rate and consolidation effects, the increase amounted to 6.3 %, which was essentially due to higher freight costs. Personnel costs increased by 2.7 % to €3,108 million (previous year: 3,025). The personnel cost ratio decreased to 16.6 % (previous year: 17.2 %). The result from equity accounted investments (REI) increased by 27.9 % to €356 million (previous year: 279).

The result from current operations before depreciation and amortisation (RCOBD) rose by 4.5 % to €3,875 million (previous year: 3,707). Excluding consolidation and exchange rate effects, the growth was 5.9 % in comparison with the previous year. The result from current operations increased by 10.6 % to €2,614 million (previous year: 2,363). Changes to the scope of consolidation of €14 million and exchange rate effects of €17 million had a negative impact on the result from current operations. On a like-for-like basis, it improved by 12.0 %. The RCOBD margin fell slightly to 20.7 % (previous year: 21.1 %). Price increases and efficiency improvements could not fully compensate for higher energy costs.

The additional ordinary result of €481 million (previous year: -3,678) is essentially attributable to the profit of €482 million from the sale of our business activities in the West region in the USA. The previous year's result was affected by impairment of goodwill amounting to €2.7 billion and other intangible assets and property, plant, and equipment of around €0.8 billion. In the context of the coronavirus pandemic, HeidelbergCement had comprehensively reviewed the business prospects for all significant local business units of the Group in the previous year. Earnings before interest and taxes (EBIT) rose accordingly by €4,410 million to €3,095 million (previous year: -1,315).

The financial result improved by €86 million to €-201 million (previous year: -287). In particular, the €52 million improvement in the other financial result, which was mainly due to interest effects from the valuation of other provisions, and the €21 million improvement in the currency result had a positive effect in comparison with the previous year.

Profit before tax from continuing operations grew by €4,496 million to €2,894 million (previous year: -1,602), especially because of the positive additional ordinary result.

At €947 million (previous year: 335), expenses for income taxes were €612 million above the previous year's level. 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 in North America. In addition, the pandemic-related impairments on non-current assets, which resulted in deferred tax income of €174 million, had a positive impact in the previous year. Net income from continuing operations rose accordingly by €3,884 million to €1,947 million (previous year: -1,937).

Net loss from discontinued operations amounted to €-46 million (previous year: -72) and was mainly attributable to business lines of the Hanson Group that were discontinued in prior years. The previous year's result included a loss of €44 million from the valuation of the contingent purchase price receivable from the disposal of the business line Hanson Building Products in 2015.

Overall, the profit for the financial year amounted to €1,902 million (previous year: net loss of -2,009). The result relating to non-controlling interests increased by €13 million to €143 million (previous year: 130). The Group share of profit therefore amounts to €1,759 million (previous year: Group share of loss -2,139).

Excluding the additional ordinary result – which was particularly influenced by the sale of the business activities in the West region in North America in the reporting year and, in 2020, consisted largely of the non-recurring effects from the described impairments and related non-recurring tax effects – the Group share of profit increased by 14.3 % to €1,561 million (previous year: 1,365).

Earnings per share attributable to the shareholders of HeidelbergCement AG grew by €19.69 to €8.91 (previous year: -10.78). Excluding the additional ordinary result and the non-recurring tax effects, the earnings per share rose by €1.03 to €7.91 (previous year: 6.88).

The Managing Board and Supervisory Board will propose to the Annual General Meeting the distribution of a dividend of €2,40 (previous year: 2.20) per share.

Consolidated income statement (short form)

€m	2020	2021	Change
Revenue	17,606	**18,720**	6 %
Result from current operations before depreciation and amortisation (RCOBD)	3,707	**3,875**	5 %
Depreciation and amortisation	-1,344	**-1,261**	-6 %
Result from current operations	2,363	**2,614**	11 %
Additional ordinary result	-3,678	**481**	
Earnings before interest and taxes (EBIT)	-1,315	**3,095**	
Financial result	-287	**-201**	
Profit/loss before tax from continuing operations	-1,602	**2,894**	
Income taxes	-335	**-947**	
Net income/loss from continuing operations	-1,937	**1,947**	
Net loss from discontinued operations	-72	**-46**	
Profit/loss for the financial year	-2,009	**1,902**	
Group share of profit/loss	-2,139	**1,759**	
Group share of profit - adjusted [1]	1,365	**1,561**	14 %

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

HeidelbergCement 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 – as well as asphalt in the United Kingdom and precast concrete parts/concrete products in Germany.

HeidelbergCement focused on its core markets again in the 2021 financial year. In Spain, subject to official approval, we sold aggregates and ready-mixed concrete activities in the Catalonia, Madrid, Asturias, Balearics, and Andalusia regions as well as the cement plant in Malaga.

Economic development in the countries of the Western and Southern Europe Group area was consistently positive in the reporting year, according to available IMF data (January 2022 forecast). The strongest recovery was seen in the countries that were particularly affected by the coronavirus pandemic in the previous year: Italy is likely to see an increase in GDP of 6.2 %, France 6.7 %, and the United Kingdom 7.2 %. Growth in GDP of 4.9 % is expected in Spain and 2.7 % in Germany. According to the IMF's October 2021 forecast, economic output in Belgium and the Netherlands is predicted to increase by 5.6 % and 3.8 % respectively.

The economic recovery during the reporting year was also reflected in construction activity in the countries of the Group area. According to Euroconstruct's November 2021 forecast, this ranged from an increase of 15.1 % in Italy, 13.4 % in the United Kingdom, and 10.3 % in Belgium to more moderate rises in France and Spain of 6.7 % and 6.5 % respectively. In the Netherlands, construction industry grew by only 0.8 %, while in Germany it decreased by 0.7 %, mainly due to the decline in public construction.

In all of the countries in the Group area, high cost inflation in relation to energy and logistics in particular as well as supply bottlenecks from the second half of the year onwards led to a substantial increase in consumer prices and price increases for construction materials.

Cement business line
In 2021, the Western and Southern Europe Group area's cement and clinker sales volumes rose by 7.8 % to 30.4 million tonnes (previous year: 28.2). All of the countries benefited from the sustained recovery in the construction industry following the pandemic-related lockdowns of the previous year. Increases in sales volumes were favoured by good weather in the first half of the year and infrastructure projects in several countries, such as the construction of the HS2 high-speed rail line in the United Kingdom. Some countries have already benefited from the NextGenerationEU recovery plan.

In addition to the good development of sales volumes, all countries were able to increase their sales prices significantly. Revenue of the cement business line in the Western and Southern Europe Group area rose by 14.0 % to €2,881 million (previous year: 2,527).

We made progress with the modernisation and reorganisation of the sites in France. For example, we successfully completed the modernisation at our cement plant in Couvrot over the course of the year. These measures led to an increase in both production capacity and the use of alternative fuels. The replacement of the clinker cooler began at the cement plant in Bussac. A landslide resulted in temporary production losses at our cement plant in Tavernola, Italy.

Aggregates business line
The Group area's deliveries of aggregates increased by 7.5 % to 84.0 million tonnes (previous year: 78.2). While sales volumes rose in the United Kingdom and France, they declined in Germany, mainly due to bad weather conditions.

As a result of positive price development in all countries, especially the United Kingdom, revenue in the aggregates business line at €1,278 million (previous year: 1,077) was 18.7 % above the previous year.

Ready-mixed concrete-asphalt business line
Ready-mixed concrete sales volumes grew by 5.8 % to 18.2 million cubic metres (previous year: 17.2) in the reporting year. Development of sales volumes was mainly positive in all countries. Moreover, all countries were able to implement price increases.

Asphalt activities in the Group area are limited to the United Kingdom, where asphalt sales volumes exceeded the previous year by 8.0 % at 3.7 million tonnes (previous year: 3.5).

Revenue of the ready-mixed concrete-asphalt business line grew by 10.9 % to €2,131 million (previous year: 1,922).

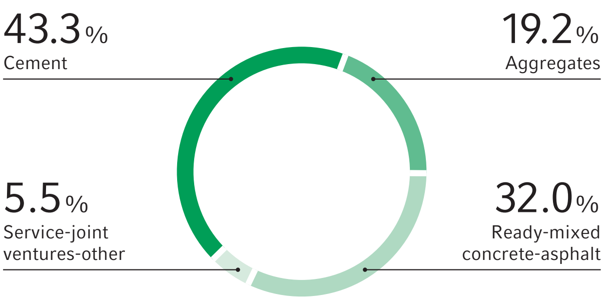
Service-joint ventures-other business line
The service-joint ventures-other business line essentially includes the precast concrete parts and concrete products operating lines in Germany. At €367 million (previous year: 373), revenue of the business line was 1.6 % below the previous year.

Revenue and results
Thanks to strong development in sales volumes and prices, revenue of the Western and Southern Europe Group area rose by 12.0 % to €5,557 million (previous year: 4,960).

Good sales volumes, benefiting from the economic recovery following the pandemic-related decline in the previous year, together with dynamic price increases and strict cost management led to a strong improvement in results in the Group area. At €937 million (previous year: 859), the result from current operations before depreciation and amortisation was 9.1 % above the level of the previous year. The result from current operations rose by 21.2 % to €561 million (previous year: 463).

Key data Western and Southern Europe			
€m	2020	2021	Change
Revenue	4,960	**5,557**	12.0 %
Result from current operations before depreciation and amortisation	859	**937**	9.1 %
Result from current operations	463	**561**	21.2 %
Cement and clinker sales volumes (Mt)	28.2	**30.4**	7.8 %
Aggregates sales volumes (Mt)	78.2	**84.0**	7.5 %
Ready-mixed concrete sales volumes (Mm^3)	17.2	**18.2**	5.8 %
Asphalt sales volumes (Mt)	3.5	**3.7**	8.0 %
Employees as at 31 December	15,250	**15,040**	-1.4 %

Revenue Western and Southern Europe 2021



Northern and Eastern Europe-Central Asia

HeidelbergCement is active in 20 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 developed positively in the course of the coronavirus pandemic in 2021. In Estonia, Georgia, and Hungary, economic output is estimated to have increased by 8.5 %, 7.7 %, and 7.6 % respectively. GDP growth of 7.0 %, 6.5 %, 5.1 %, and 4.7 % is forecast for Romania, Greece, Poland, and Russia, respectively. In comparison with the previous year, Sweden and Czechia recorded 4.0 % and 3.8 % higher economic growth, respectively. The GDP in Norway and Kazakhstan is expected to have increased by 3.0 % and 3.3 % respectively in comparison with the previous year.

Construction activity in the countries of the Northern and Eastern Europe-Central Asia Group area developed positively in 2021, according to Euroconstruct's November forecast. The countries of Northern Europe recorded higher growth rates than those in Eastern Europe-Central Asia. The construction industry in Sweden is expected to grow by 8.3 % and was strengthened by residential construction in particular. In Norway, the previous year's level is expected to have been exceeded by 6.2 % thanks to the positive development in residential construction and, in particular, infrastructure construction.

Following a strong decrease in the previous year, Euroconstruct expects growth of 3.3 % in the Hungarian construction sector in 2021, with positive development in all construction sectors. An increase of 3.0 % is predicted for the Polish construction industry, primarily supported by residential and non-residential construction. A slight rise of 0.6 % is anticipated in Czechia. Residential and infrastructure construction did not compensate for the negative development in public and commercial construction.

As part of our portfolio and structural optimisations, we sold five ready-mixed concrete plants in Slovakia in 2021. Furthermore, we have signed an agreement to sell our aggregates business and two ready-mixed concrete plants in Greece.

Cement business line

The cement and clinker sales volumes of the Northern and Eastern Europe-Central Asia Group area rose by 4.2 % to 24.6 million tonnes (previous year: 23.6).

While sales volumes increased in all the countries of Northern Europe and the majority of the Eastern European countries, they decreased in Greece and Romania. The Russian market benefited from strong demand for real estate and low mortgage interest rates. Cement demand, particularly in Czechia and Norway, benefited from infrastructure projects.

Revenue of the cement business line was significantly above the previous year's level, with an increase of 6.5 % to €1,631 million (previous year: 1,532).

In 2021, several projects aimed at modernising our production facilities were continued. These include, for example, the replacement of electrostatic precipitators with new bag filters in Romania, thereby reducing dust emissions, and the modernisation of a coal mill in Georgia. Construction of a CO_2 capture and storage (CCS) facility has started at the Brevik cement plant in Norway, which will be completed in 2024 and will lead to a reduction of 400,000 tonnes of CO_2 per year.

Aggregates business line

The main markets of the Northern and Eastern Europe-Central Asia Group area in the aggregates business line are in Northern Europe as well as in Czechia and Poland. In 2021, our aggregates production sites were modernised further, and we commissioned new locations in Poland and Czechia.

Deliveries of aggregates in 2021 rose overall by 2.2 % to 49.8 million tonnes (previous year: 48.7), with varied development across the countries of the Group area. While most countries – particularly Norway, Sweden, and Romania – recorded volume decreases, sales volumes grew in Czechia. The cross-border Mibau Group, which has by far the largest sales volume in the Group area, also achieved an increase.

Revenue in the aggregates business line rose by 7.5 % to €564 million (previous year: 525).

Ready-mixed concrete-asphalt business line

We produce ready-mixed concrete in all countries in the Northern and Eastern Europe-Central Asia Group area with the exception of Russia and Albania. However, we are not active in the asphalt business in this region.

In 2021, we built or modernised new and existing ready-mixed concrete plants and commissioned semi-automatic concrete mixing plants.

Ready-mixed concrete deliveries in the Group area rose by 3.7 % to 6.2 million cubic metres (previous year: 6.0).

Revenue of the ready-mixed concrete-asphalt business line grew by 9.6 % to €614 million (previous year: 560).

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, Germany, Poland, Estonia, Norway, and Sweden.

In Norway and Sweden, NPG was severely affected by the coronavirus pandemic, both through high levels of employee sick leave and declines in orders for residential and commercial construction. Measures to further automate our production sites were continued.

The joint ventures are located in Georgia, Hungary, and Bosnia-Herzegovina. Cement sales volumes in all three countries rose in comparison with the previous year, with significant increases in some cases. 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 10.8 % to €485 million (previous year: 437). Revenue of our joint ventures is not included here, as these are accounted for at equity.

Revenue and results

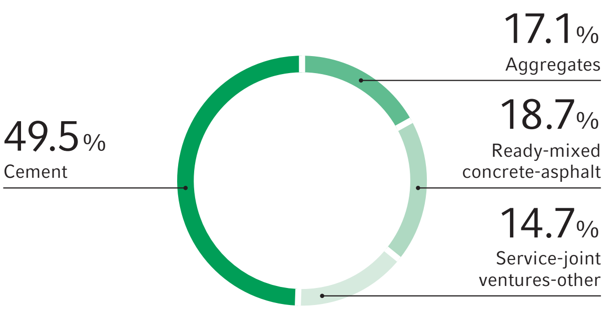
Revenue of the Northern and Eastern Europe-Central Asia Group area grew by 8.1 % to €3,084 million (previous year: 2,854). Excluding consolidation and exchange rate effects, it rose by 7.5 %.

Price increases in all product lines combined with higher sales volumes compensated for the negative effect of rising energy costs on an annual basis. The joint ventures contributed positively to the development of results. At €737 million (previous year: 718), the result from current operations before depreciation and amortisation was 2.6 % above the level of the previous year. The result from current operations rose by 3.3 % to €544 million (previous year: 526).

Key data Northern and Eastern Europe-Central Asia

€m	2020	2021	Change
Revenue	2,854	**3,084**	8.1 %
Result from current operations before depreciation and amortisation	718	**737**	2.6 %
Result from current operations	526	**544**	3.3 %
Cement and clinker sales volumes (Mt)	23.6	**24.6**	4.2 %
Aggregates sales volumes (Mt)	48.7	**49.8**	2.2 %
Ready-mixed concrete sales volumes (Mm^3)	6.0	**6.2**	3.7 %
Employees as at 31 December	11,097	**11,101**	0,0 %

Revenue Northern and Eastern Europe-Central Asia 2021



North America

The United States of America and Canada form the North America Group area. In this market region, HeidelbergCement produces cement, aggregates, ready-mixed concrete, and asphalt. Additionally, concrete pipes are produced in Canada. We operate a cement plant in Buda, Texas, via a joint venture.

As part of our portfolio optimisation and margin improvement programme, we made both acquisitions and divestments. On 31 December 2021, we acquired Corliss Resources, Inc., an aggregates and ready-mixed concrete company in the US state of Washington. To strengthen our market position in the Canadian province of Ontario, we acquired the operations of the ready-mixed concrete company Brant Concrete on 1 December 2021 as part of an asset deal.

On 1 October 2021, we sold our American business activities in the West region (California, Arizona, Oregon, and Nevada). The transaction comprised two cement production facilities with associated distribution terminals, 17 active aggregates sites, and several downstream operations in the ready-mixed concrete and asphalt sectors.

In 2021, the American and Canadian economies were able to recover from the downturn at the start of the pandemic, mainly due to higher consumer spending, investments, and exports. In its January 2022 forecast, the International Monetary Fund (IMF) expects an increase of 5.6% in the USA's gross domestic product in 2021. For Canada, the IMF anticipates economic growth of 4.7%.

The American Portland Cement Association (PCA) projects that construction activity will have risen by 1.5% in 2021. The growth rate of 13.1% in residential construction is expected to be offset by declines of 7.7% in non-residential construction and 6.1% in public construction. In the Canadian province of British Columbia, the construction industry was stimulated by a number of major projects. In the province of Alberta, strong impetus came from the renewable energies sector, which benefited from high demand and increased raw material prices.

Cement business line

Cement and clinker sales volumes of our plants were slightly above the previous year, up 0.7 % at 15.7 million tonnes (previous year: 15.6). In the first quarter, sales declined due to weather conditions, but these declines were offset over the course of the year. Excluding consolidation effects from the sale of the West region, cement and clinker sales volumes grew by 4.4 %.

Demand increased in all regions, especially Canada and the Northeast and Midwest regions. Sales volumes in the South region recovered from the extreme weather conditions in Texas at the beginning of the year and exceeded the previous year's level. During the reporting year, we were able to implement price increases in all regions.

Revenue of the cement business line rose by 2.8 % to €1,828 million (previous year: 1,778) in 2021. Excluding consolidation and exchange rate effects, the rise amounted to 8.7 %.

Several projects aimed at modernising our production facilities continued in the reporting year. In particular, we made progress with the reconstruction and modernisation of the Mitchell, Indiana, cement plant. The construction of the clinker dome, as well as all main foundations and above-ground concrete work have been completed. The plant is scheduled for completion in 2023.

Aggregates business line

In the USA and Canada, HeidelbergCement has a network of production sites for sand, gravel, and hard rock. Aggregates sales volumes rose by 1.9 % in 2021 to 128.3 million tonnes (previous year: 125.9). Excluding consolidation effects, sales volumes were 4.2 % above the previous year's level.

We recorded volume increases in all regions, with the strongest growth in demand in the US states of Washington and Pennsylvania, where construction activity had to be temporarily suspended in the previous year due to the pandemic. Price increases were implemented successfully in all market regions of the USA and Canada.

Revenue of the aggregates business line decreased by 2.6 % to €1,718 million (previous year: 1,765). Excluding consolidation and exchange rate effects, revenue increased by 2.7 %.

Ready-mixed concrete-asphalt business line

Sales volumes of ready-mixed concrete fell by 5.4 % in 2021 to 7.4 million cubic metres (previous year: 7.8). Excluding consolidation effects, sales volumes of ready-mixed concrete were at the previous year's level. Demand rose particularly sharply in the Northeast region, especially in the Ontario market region. While sales volumes also improved slightly in Canada, they fell in the South region as a result of adverse weather conditions. Price increases were implemented in all market regions of the USA and Canada.

Asphalt deliveries decreased by 11.8 % to 4.4 million tonnes (previous year: 5.0). Excluding consolidation effects, asphalt sales volumes rose slightly by 1.2 %.

Revenue of the ready-mixed concrete-asphalt business line fell by 4.3 % to €1,231 million (previous year: 1,286). Excluding consolidation and exchange rate effects, however, an increase of 3.9 % was recorded.

Service-joint ventures-other business line

In 2021, the cement sales volumes of our joint venture Texas Lehigh fell by 9.6 % compared with the previous year as a result of adverse weather conditions.

Revenue in the business line, which includes the concrete pipes operating line in Canada and other associated activities, decreased by 5.2 % to €279 million (previous year: 294). Revenue of our joint ventures is not included here, as these are accounted for at equity.

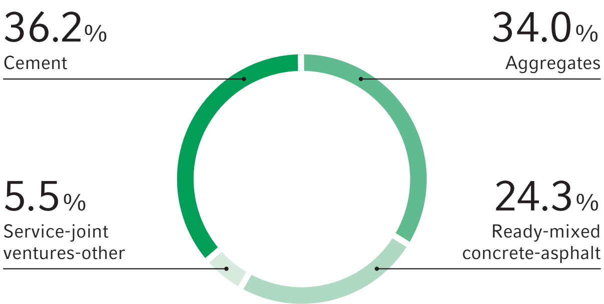
Revenue and results

Total revenue in the North America Group area decreased by 1.4 % to €4,551 million (previous year: 4,617). Excluding consolidation and exchange rate effects, revenue was up 5.0 % on the previous year.

The result from current operations before depreciation and amortisation increased by 2.3 % to €1,042 million (previous year: 1,019). The result from current operations rose by 10.6 % to €722 million (previous year: 653). Excluding consolidation and exchange rate effects, the result from current operations before depreciation and amortisation increased by 7.0 % and the result from current operations by 15.4 %.

Key data North America			
€m	2020	2021	Change
Revenue	4,617	**4,551**	-1.4 %
Result from current operations before depreciation and amortisation	1,019	**1,042**	2.3 %
Result from current operations	653	**722**	10.6 %
Cement and clinker sales volumes (Mt)	15.6	**15.7**	0.7 %
Aggregates sales volumes (Mt)	125.9	**128.3**	1.9 %
Ready-mixed concrete sales volumes (Mm^3)	7.8	**7.4**	-5.4 %
Asphalt sales volumes (Mt)	5.0	**4.4**	-11.8 %
Employees as at 31 December	8,585	**7,637**	-11.0 %

Revenue North America 2021



Asia-Pacific

The Asia-Pacific Group area comprises nine countries. In India, Bangladesh, and Brunei, our activities focus on cement production. In Thailand, we operate a downstream ready-mixed concrete business in addition to cement production. In Indonesia, we are vertically integrated in the areas of cement, aggregates, and ready-mixed concrete. In Australia and Malaysia, we are active in the areas of aggregates, ready-mixed concrete, and asphalt. 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 2021 forecast, the IMF predicted economic growth of 6.5 % in the Asia and Pacific region in 2021. The availability of COVID-19 vaccines, government support measures, and the continuing favourable financial conditions contributed to this growth. Supply chain disruptions, a rise in raw material prices, and the devaluation of currencies in most emerging countries in the Asia-Pacific region had a slowing effect on economic growth, according to the IMF. In China, the growth rate of 8 % was slightly weakened by the curtailment of public investment. Increased consumer confidence and government support measures led to expected growth of 9.5 % in India. The IMF anticipates growth of 3.2 % and 3.5 % respectively in Indonesia and Malaysia. Thailand's economic recovery will only be 1.0 % because of its heavy dependence on tourism. According to the IMF, Australia's economy has recovered strongly, primarily thanks to good raw material prices, and will record growth of 3.5 % in 2021 despite pandemic-related restrictions.

Cement business line

Cement and clinker sales volumes in the Asia-Pacific Group area increased by 5.4 % in 2021 to 34.7 million tonnes (previous year: 32.9). Cement deliveries from our joint ventures were slightly above the previous year's level.

In Indonesia, cement consumption rose by an estimated 4.5 % in 2021. This growth was mainly in bagged cement, which was favoured by residential construction. On the other hand, declining infrastructure and commercial projects led to intense competition in the bulk cement market. Cement and clinker sales volumes of our subsidiary Indocement increased by 5.0 % to 18.0 million tonnes (previous year: 17.1). The significant rise in energy and fuel prices during the course of the year could not be fully offset by price increases.

Supported by government spending on infrastructure and the revival of residential construction, the construction industry in India recorded estimated growth of 11 %. Our total cement and clinker deliveries in India rose by 5.0 %. Fuel costs increased significantly owing to the scarcity of coal and petroleum coke, with the additional costs not being fully covered by the sales prices. Our investments in solar energy during the business year and the new waste heat recovery facility at the Yerraguntla plant are expected to increase energy efficiency from the second quarter of 2022.

In Thailand, the construction industry was again adversely affected as a result of the pandemic-related construction site closures and labour shortages. The cement sales volumes of our plants declined by 4.5 %. Weak market demand across the construction industry combined with flooding put sales prices under pressure as fuel costs increased.

In Bangladesh, the economy recovered strongly in the first half of 2021 from the pandemic-related effects but weakened slightly over the remainder of the year as a result of price increases for building materials. The cement sales volumes of our plants grew by 38.5 % compared with the previous year. Although sales prices were increased, margins deteriorated because of the sharp increase in transport and external clinker costs.

The cement market in Brunei continues to be affected by the lack of major projects. However, the cement sales volumes of our grinding plant improved in comparison with the previous year, since we were able to take over market shares from importers.

Revenue of the cement business line rose by 3.8 % to €1,678 million (previous year: 1,617).

Aggregates business line
In 2021, total aggregates deliveries grew slightly by 1.3 % to 36.6 million tonnes (previous year: 36.1).

In Australia, aggregates sales volumes held up well despite the national lockdowns in important markets and the unseasonal rainy weather towards the end of the year. Sales prices were above the previous year's level. In Malaysia, our deliveries declined repeatedly as a result of further lockdowns. In Indonesia, our new quarry in Pamoyanan, West Java, contributed significantly to the strong volume growth.

Revenue of the aggregates business line grew by 10.0 % to €563 million (previous year: 512).

Ready-mixed concrete-asphalt business line
Sales volumes of ready-mixed concrete fell slightly by 1.0 % in 2021 to 10.4 million cubic metres (previous year: 10.6). While Australia and Indonesia benefited from an improvement in construction activity, Malaysia and Thailand were severely affected by lockdowns, which were directly reflected in volume losses and price pressure.

Asphalt deliveries decreased by 11.8 % to 2.0 million tonnes (previous year: 2.3). This was due to weaker demand from major projects in Australia as well as lower sales volumes in Malaysia as a result of the lockdowns.

Revenue of the ready-mixed concrete-asphalt business line grew by 3.2 % to €1,141 million (previous year: 1,106).

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 as well as in Hong Kong and of our Australian joint venture, Cement Australia. These are accounted for at equity.

As a result of the significantly slower growth in real estate investments in China, total sales volumes of the two companies in 2021 were slightly below the previous year's level. Nevertheless, price increases were implemented successfully.

In Australia, our joint venture Cement Australia benefited from both increased deliveries and higher sales prices.

Revenue of the business line, which is mainly generated from recycled aggregates in Australia, rose slightly by 2.4 % to €45 million (previous year: 44). Revenue of our joint ventures is not included here, as these are accounted for at equity.

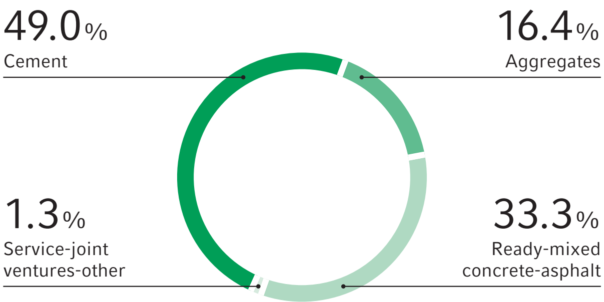
Revenue and results
Revenue of the Asia-Pacific Group area rose by 4.3 % to €3,126 million (previous year: 2,998). Excluding consolidation and exchange rate effects, the increase amounted to 3.9 %.

Price increases did not fully offset cost inflation for fuels, energy, and international freight rates. The result from current operations before depreciation and amortisation decreased by 3.5 % compared with the previous year to €670 million (previous year: 694). The result from current operations decreased by 2.4 % to €435 million (previous year: 446).

Key data Asia-Pacific

€m	2020	2021	Change
Revenue	2,998	**3,126**	4.3 %
Result from current operations before depreciation and amortisation	694	**670**	-3.5 %
Result from current operations	446	**435**	-2.4 %
Cement and clinker sales volumes (Mt)	32.9	**34.7**	5.4 %
Aggregates sales volumes (Mt)	36.1	**36.6**	1.3 %
Ready-mixed concrete sales volumes (Mm^3)	10.6	**10.4**	-1.0 %
Asphalt sales volumes (Mt)	2.3	**2.0**	-11.8 %
Employees as at 31 December	12,629	**12,460**	-1.3 %

Revenue Asia-Pacific 2021



Africa-Eastern Mediterranean Basin

HeidelbergCement operates in 15 countries in the Africa-Eastern Mediterranean Basin Group area. We mainly manufacture cement in the ten countries south of the Sahara: Benin, Burkina Faso, DR Congo, Gambia, Ghana, Liberia, Mozambique, South Africa, Tanzania, and Togo. We are one of the four biggest cement producers in all countries. In South Africa, we have a stake in a grinding plant through a joint venture. 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, as well as a company in Palestine for the local market. 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.

In November 2021, we sold our grinding plant in Sierra Leone as part of our portfolio optimisation.

According to the October 2021 forecast of the IMF, the economy in sub-Saharan Africa recovered by an estimated 3.7 % in 2021. Strong population growth, urbanisation, and negotiations on free trade agreements were among the main drivers. In our largest markets, growth rates of 4.7 % in Ghana, 4.0 % in Tanzania, and 4.8 % in Togo are expected. For the remaining countries, growth expectations range between 6.7 % for Burkina Faso and 2.5 % for Mozambique.

Demand for building materials in the countries south of the Sahara saw largely positive development in 2021. The market environment was characterised by robust local economic development with a young and rapidly growing population, as well as increasing immigration 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.

The construction industry in Morocco has recovered from its downturn after the start of the pandemic. According to the IMF's October 2021 forecast, gross domestic product is estimated to have increased by 5.7 % in 2021. Egypt is expected to have achieved economic growth of 3.3 % in 2021 despite a volatile economic situation and the effects of the coronavirus pandemic. The development of the Egyptian cement market continues to be determined by government intervention. Among others, a production cartel was introduced that partially alleviates local cost pressure. To further reduce competitive pressure, we also here continued the restructuring programme with cost savings in 2021.

According to the IMF's October forecast, GDP in Turkey recovered in 2021, with an estimated increase of 9.0 %.

After several lockdowns in the previous year connected with the coronavirus pandemic, Israel is expected to have increased its economic output by 7.1 % in 2021.

Cement business line

At 21.1 million tonnes (previous year: 21.2), the cement and clinker sales volumes of the Africa-Eastern Mediterranean Basin Group area in the reporting year remained almost at the previous year's level.

In most countries south of the Sahara, total cement and clinker deliveries rose in 2021.

Cement and clinker deliveries recovered in North Africa in the reporting year and increased again in Morocco. The sharp decline in sales volumes in Egypt is due to the introduction of the government's production cartel.

In addition, we expanded our cement activities in some of the fast-growing countries. Our investments in Togo enabled us to increase local clinker production in order to cover the growing demand in the region – Burkina Faso, Benin, and Togo. In Israel, we further consolidated our vertically integrated market position in cement, aggregates, and ready-mixed concrete. Another focus of our investments was on improving fuel flexibility and alternative fuel usage in some core markets in order to optimise our position for expected market growth and sustainable competition.

Revenue of the cement business line increased by 9.5 % to €1,585 million (previous year: 1,448).

Aggregates business line

In Israel, our volumes declined significantly as a result of limited reserves. In Morocco, aggregates sales volumes were far above the previous year. Total aggregates deliveries of the Group area rose in the reporting year by 3.4 % to 7.7 million tonnes (previous year: 7.4).

At €78 million (previous year: 78), revenue of the aggregates business line remained at the previous year's level.

Ready-mixed concrete-asphalt business line

At 5.1 million cubic metres (previous year: 5.0), deliveries of ready-mixed concrete increased by 1.6 % in 2021. In Israel, asphalt sales volumes fell by 19.5 % to 0.3 million tonnes (previous year: 0.3).

Total revenue of the ready-mixed concrete-asphalt business line remained just above the previous year's level, with a slight increase of 0.5 % to €352 million (previous year: 350).

Service-joint ventures-other business line

The domestic cement sales volumes of our Turkish joint venture Akçansa fell in 2021, in line with the general economic situation in the country. The focus was on exports of cement and clinker. Total cement and clinker sales volumes decreased by 4.5 % in comparison with the previous year.

Revenue of the business line, which is only generated by a few additional non-core activities, rose by 5.6 % to €42 million (previous year: 40). Revenue of our activities in Turkey is not included here, as these are accounted for at equity.

Revenue and results

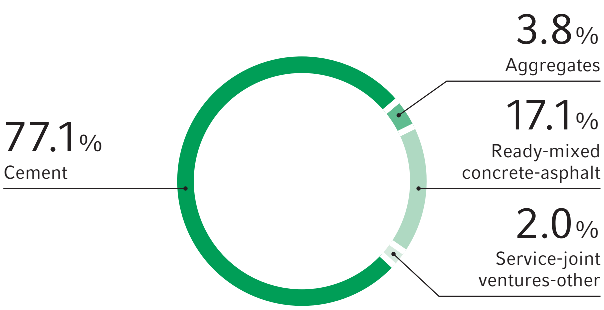
Revenue of the Africa-Eastern Mediterranean Basin Group area rose by 8.2 % to €1,909 million (previous year: 1,765). Excluding consolidation and exchange rate effects, revenue was up 9.8 % on the previous year's level.

The result from current operations before depreciation and amortisation increased by 8.7 % to €490 million (previous year: 451) owing to lower fixed costs and the increase in sales volumes, particularly in the countries south of the Sahara. At €384 million (previous year: 342), the result from current operations was 12.4 % above the previous year's level. Excluding consolidation and exchange rate effects, the rise amounted to 14.3 %.

Key data Africa-Eastern Mediterranean Basin

€m	2020	2021	Change
Revenue	1,765	**1,909**	8.2 %
Result from current operations before depreciation and amortisation	451	**490**	8.7 %
Result from current operations	342	**384**	12.4 %
Cement and clinker sales volumes (Mt)	21.2	**21.1**	-0.3 %
Aggregates sales volumes (Mt)	7.4	**7.7**	3.4 %
Ready-mixed concrete sales volumes (Mm³)	5.0	**5.1**	1.6 %
Asphalt sales volumes (Mt)	0.3	**0.3**	-19.5 %
Employees as at 31 December	5,174	**4,886**	-5.6 %

Revenue Africa-Eastern Mediterranean Basin 2021



Group Services

The Group Services business unit mainly comprises the activities of the HC Trading Group (HCT) – one of the largest trading companies worldwide for cement, clinker, and secondary cementitious materials, but also for solid and alternative fuels. HCT has its headquarters in Heidelberg, Germany. Customers in Europe and Africa have been supplied from Heidelberg since 2021. The new location 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 is provided centrally from Istanbul.

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

In the reporting year, HCT's trading volume rose by 12.0% to 26.0 million tonnes (previous year: 23.2), primarily due to trading in the core business of cement, clinker, and secondary cementitious materials. In the reporting year, HCT supplied customers in more than 70 importing countries with more than 1,200 shipments from over 40 exporting countries. The majority of the deliveries went to Africa and Asia as well as North America. The main export countries include Turkey, Spain, Vietnam, Saudi Arabia, and the USA.

In January 2021, we sold our cement and ready-mixed concrete activities in Kuwait as part of our portfolio optimisation.

Revenue and results

Revenue of the Group Services business unit rose sharply, by 40.7 % in comparison with the previous year, to €1,421 million (previous year: 1,010), primarily as a result of increased material prices and freight rates, as well as more successful trading in the core business of cement, clinker, and secondary cementitious materials. Excluding consolidation and exchange rate effects, the increase amounted to 44.8 %.

The result from current operations before depreciation and amortisation was €30 million (previous year: 24), a significant increase of 29.6 % compared to the previous year; on a like-for-like basis, growth amounted to 36.9 %. The result from current operations also increased significantly by 53.2 % to €30 million (previous year: 20); on a like-for-like basis, the rise amounted to 45.4 %. This increase in the reporting year was mainly due to higher trading volumes combined with stable margins and the successful strategic realignment of HCT.

Key data Group Services

€m	2020	2021	Change
Revenue	1,010	**1,421**	40.7 %
Result from current operations before depreciation and amortisation	24	**30**	29.6 %
Result from current operations	20	**30**	53.2 %
Trading volumes (Mt)	23.2	**26.0**	12.1 %
Employees as at 31 December	388	**85**	-78.1 %

Statement of cash flows

The cash inflow from operating activities of continuing operations in the 2021 financial year was negatively affected by the non-recurring tax payment in connection with the sale of the West region in the USA and the increase in working capital. It thus decreased significantly by €573 million to €2,473 million (previous year: 3,046).

Dividends received, which were higher than the previous year's level at €302 million (previous year: 223), mainly included payouts from joint ventures and associates. Interest received decreased by €27 million compared with 2020 to €75 million (previous year: 102). The decline of €80 million in interest payments to €288 million (previous year: 368) was mainly due to more favourable financing conditions and lower net debt, although the early repayment of a bond in December 2021 had a negative impact with a non-recurring interest payment of €32 million. This item also includes interest payments of €32 million (previous year: 38) attributable to leases. Compared with the previous year, income taxes paid rose significantly by €406 million to €747 million (previous year: 341). This includes tax payments totalling €306 million in connection with the sale of the business activities in the West region. In addition, a tax surplus of €42 million, resulting

Consolidated statement of cash flows (short form)

€m	2020	2021	Difference
Cash flow	3,139	**2,925**	-214
Changes in working capital	236	**-207**	-442
Decrease in provisions through cash payments	-328	**-245**	83
Cash flow from operating activities – continuing operations	3,046	**2,473**	-573
Cash flow from operating activities – discontinued operations	-20	**-77**	-58
Cash flow from operating activities	3,027	**2,396**	-631
Investments (cash outflow)	-1,067	**-1,599**	-532
Divestments (cash inflow)	118	**2,219**	2,101
Cash flow from investing activities	-949	**620**	1,569
Capital increase / decrease – non-controlling interests	-10	**-1**	10
Dividend payments	-323	**-618**	-295
Acquisition of treasury shares		**-350**	-350
Changes in ownership interests in subsidiaries	-20	**-100**	-80
Net change in bonds, loans and lease liabilities	-2,288	**-1,772**	516
Cash flow from financing activities	-2,641	**-2,840**	-199
Effect of exchange rate changes	-108	**65**	173
Change in cash and cash equivalents	-672	**241**	912

from coronavirus-related measures in the previous year, had a negative impact in the reporting year.

Cash outflows from the utilisation of provisions decreased by €83 million to €245 million (previous year: 328). After a decrease in the previous year, working capital rose by €207 million in the financial year (previous year: decrease of 236), which had a significant negative impact on the cash flow from operating activities. An increase in working capital of €278 million (previous year: 30) is attributable to the reduction in factoring programmes.

The cash flow from operating activities – discontinued operations of €77 million (previous year: 20) relates primarily to cash flows in connection with the settlement of the damages and environmental obligations arising from the takeover of the Hanson Group.

In the financial year, there was a cash inflow from investing activities of €620 million (previous year: cash outflow of 949). Cash-relevant investments grew by €532 million to €1,599 million (previous year: 1,067). This increase is especially attributable to the higher payments for the purchase of property, plant, and equipment amounting to €1,392 million (previous year: 922). Payments for the acquisition of subsidiaries and other business units also rose by €69 million in comparison with the previous year to €145 million (previous year: 76). These mainly relate to the acquisition of Corliss Resources, LLC in North America. In the previous year, the payments resulted mainly from the acquisition of the Norwegian-Swedish Kynningsrud Group and of Les Cimenteries Marocaines du Sud S.A., Laâyoune. Investments for maintenance and optimising our capacities amounted to €1,084 million (previous year: 833), and €516 million (previous year: 234) related to capacity expansions. Cash-relevant divestments increased significantly in comparison with the previous year by €2,101 million to €2,219 million (previous year: 118). The main reason for this increase was the cash inflow from the disposal of subsidiaries and other business units in connection with the sale of our business activities in the West region and of our subsidiaries in Hong Kong, Kuwait, and Sierra Leone. Proceeds from the sale of intangible assets and property, plant, and equipment also increased by €117 million to €184 million (previous year: 67), primarily as a result of the disposal of real estate. The disposal of financial assets, associates, and joint ventures as well as the repayment of loans resulted in payments received of €30 million (previous year: 49).

Financing activities generated a cash outflow of €2,840 million in 2021 (previous year: 2,641). The cash outflow arising from the net proceeds from and repayment of bonds and loans of €1,772 million (previous year: 2,288) included in this figure covers the change in long- and short-term interest-bearing liabilities, mainly comprising the repayment of two bonds with a total value of €1.5 billion, and the repayment of lease liabilities amounting to €253 million. This item also includes borrowings and payments relating to bank loans and debt certificates, as well as changes to other short-term interest-bearing liabilities with high turnover rate. In the previous year, a bond with a value of €650 million was issued and four bonds with a total value of €2.6 billion were repaid, as were lease liabilities of €271 million. The payments of €103 million (previous year: 22) made to increase ownership interests in subsidiaries were mainly related to the 1.9% increase of our share in PT Indocement Tunggal Prakarsa Tbk., Indonesia, through the acquisition of own shares. In the previous year, this item included the purchase of 21.0% of the shares in Suez Cement Company S.A.E., Egypt, amounting to €15 million, and of 18.5% of the shares in Tourah Portland Cement Company S.A.E., Egypt, amounting to €5 million. Dividend payments led to an overall cash outflow of €618 million (previous year: 323). The significant increase in comparison with the previous year is due to the return to a progressive dividend policy of HeidelbergCement AG of €2.20 (previous year: 0.60) per share, resulting in a total dividend payment of €437 million (previous year: 119). The first tranche of the HeidelbergCement AG share buyback programme resulted in payments for the acquisition of own shares totalling €350 million during the financial year.

In the 2021 financial year, HeidelbergCement was able to meet its payment obligations at all times.

Investments

In the 2021 business year, HeidelbergCement continued the portfolio optimisation as part of the "Beyond 2020" strategy and made subsequent investments and disinvestments.

Cash-relevant investments increased by €532 million compared with the previous year to €1,599 million (previous year: 1,067). On the other hand, there were cash-relevant divestments of €2,219 million (previous year: 118). Cash-relevant net divestments amounted to €620 million (previous year: net investments of 949).

Investments in property, plant, and equipment (including intangible assets) accounted for €1,419 million (previous year: 969). Investments in property, plant, and equipment related on the one hand to maintenance, optimisation, and environmental protection measures at our production sites. One focus of our investment activities continued to be on improving environmental protection. This includes, among others, the construction of a CO_2 capture and storage system (CCS) in the Brevik cement plant in Norway, the replacement of electrostatic precipitators with new bag filters in Romania, as well as investments in solar energy and the construction of a waste heat recovery system in the Yerraguntla plant in India. Major capital expenditure also related to the modernisation and reorganisation of the cement plants in France as well as the increase in fuel flexibility and use of alternative fuels in the cement plants of the Africa-Eastern Mediterranean Basin Group area.

On the other hand, we also made targeted investments in profitable growth in selected markets in 2021 in line with our long-term growth strategy. These included, among others, the large-scale project to convert and modernise the Mitchell cement plant in Indiana, USA, and the optimisation of production capacities in Togo.

Net investments in property, plant, and equipment (investments in and divestments of property, plant, and equipment) amounted to €1,208 million in the 2021 business year.

Investments in financial assets, associates and joint ventures, as well as investments in subsidiaries and other business units increased to €180 million (previous year: 98). This mainly comprised the acquisition of Corliss Resources, LLC, USA, and smaller acquisitions in the Western and Southern Europe, North America, and Asia-Pacific Group areas.

In January 2021, we sold our majority stake of 51 % in the cement and ready-mixed concrete company Hilal Cement in Kuwait.

As at 1 October 2021, we sold the cement, aggregates, ready-mixed concrete, and asphalt business activities of our North American subsidiary Lehigh Hanson in the West region (California, Arizona, Oregon, and Nevada). The sales price of US$ 2.3 billion was received in cash.

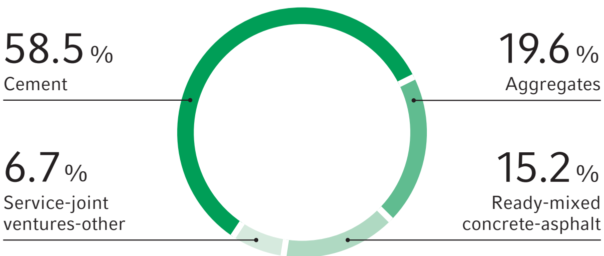
At the end of November 2021, we divested our business in Sierra Leone and sold the 50 % stake in the cement grinding plant Sierra Leone Cement Corporation.

The divestments in Greece and Spain as well as the expansion of our cement activities in Tanzania had not been completed by the end of 2021. Also subject to regulatory approval is the acquisition of a 45 % stake in Command Alkon (see Strategy section).

Investments

€m	2020	2021	Change
Western and Southern Europe	296	**426**	43.9 %
Northern and Eastern Europe-Central Asia	160	**172**	7.7 %
North America	281	**498**	77.3 %
Asia-Pacific	133	**208**	55.5 %
Africa-Eastern Mediterranean Basin	95	**109**	14.8 %
Group Services	4	**6**	67.2 %
Financial assets and other business units	98	**180**	83.4 %
Total	1,067	**1,599**	49.8 %

Investments in property, plant, and equipment[1] by business lines in 2021



1) Incl. intangible assets.

Consolidated balance sheet

In comparison with 31 December 2020, the balance sheet total increased by €1,376 million to €33,711 million (previous year: 32,335) as at 31 December 2021.

Non-current assets increased by €545 million to €25,568 million (previous year: 25,023). Adjusted for positive exchange rate effects of €987 million, there was a decrease of €442 million. This resulted in particular from the sale of non-current assets of the West region in the USA, amounting to €1,326 million. On the other hand, there were net additions from further changes to the scope of consolidation of €453 million. These related in particular to the reconsolidation of the Permanente Group and the first-time consolidation of Corliss Resources, LLC, in the USA.

Intangible assets decreased by €578 million to €8,372 million (previous year: 8,950). Adjusted for positive exchange rate effects of €379 million, the drop amounted to €957 million, which is largely due to the goodwill of €872 million from the West region in the USA.

The carrying amount of the property, plant, and equipment rose by €818 million to €13,631 million (previous year: 12,813). Exchange rate effects of €499 million had a positive impact on this figure. The growth of €548 million in prepayments and assets under construction to €1,383 million (previous year: 835) resulted in particular from the increased investment activities in the North America and Western and Southern Europe Group areas. The reconsolidation of the Permanente Group and the first-time consolidation of Corliss Resources, LLC, in North America led to an increase of €302 million in property, plant, and equipment. Scheduled depreciation and amortisation totalled €1,215 million. In connection with the sale of the West region in the USA, property, plant, and equipment with a carrying amount of €449 million left the scope of consolidation.

Financial assets rose by €130 million to €2,123 million (previous year: 1,992). Adjusted for positive exchange rate effects of €41 million, the increase amounted to €89 million. The carrying amounts of shares in joint ventures and associates increased by €55 million, adjusted for currency effects. Financial investments rose by €69 million. The carrying amounts of loans and derivative financial instruments fell by €35 million, mainly as a result of the reclassification of loans under current assets.

Other non-current assets increased by €175 million to €1,443 million (previous year: 1,268). While deferred tax assets decreased by €80 million, overfunding of pension plans increased by €244 million, primarily as a result of the revaluation at the end of the year.

Current assets grew by €748 million to €8,017 million (previous year: 7,270). Adjusted for positive exchange rate effects of €226 million, the increase amounted to €522 million. Inventories increased by €240 million to €2,211 million (previous year: 1,971), particularly in connection with the acquisition of CO_2 certificates and increased raw material prices and costs. Trade receivables rose by €275 million to €1,837 million (previous year: 1,562), primarily as a result of the reduction in the financing volume for the factoring programmes. Tax refund claims also increased by €67 million to €148 million (previous year: 81), while cash and cash equivalents rose by €258 million to €3,115 million (previous year: 2,857). In contrast, other operating receivables decreased by €63 million to €535 million (previous year: 598). This decline is largely due to the reconsolidation of the Permanente Group.

The assets held for sale amounting to €125 million include, in particular, the assets of the Spanish business activities in Catalonia, Madrid, and southern Spain.

On the equity and liabilities side, equity increased by €2,111 million to €16,659 million (previous year: 14,548). Total comprehensive income amounted to €3,187 million, which is composed in particular of the profit for the financial year amounting to €1,902 million, positive currency translation effects of €1,082 million, and positive effects from the revaluation of defined benefit pension plans amounting to €203 million. The acquisition of own shares totalling €350 million, dividends of €437 million paid to shareholders of HeidelbergCement AG, and dividends of €181 million paid to non-controlling interests had a negative effect on equity. Furthermore, changes in ownership interests in subsidiaries led to a reduction of €100 million in equity, which was mainly connected with our increased share in PT Indocement Tunggal Prakarsa Tbk., Indonesia.

Interest-bearing liabilities decreased by €1,678 million to €8,226 million (previous year: 9,904). In the financial year, two bonds totalling €1,500 million were repaid, as were lease liabilities of €253 million.

Net debt was reduced by €1,894 million to €4,999 million (previous year: 6,893). This was due in particular to the operating cashflow and cash inflow from the sale of the West region in the USA.

As at 31 December 2021, the leverage ratio was 1.29x (previous year: 1.86x).

Total provisions increased by €325 million to €2,824 million (previous year: 2,499). Adjusted for exchange rate effects of €91 million, the increase amounted to €234 million. Pension provisions decreased by €121 million to €999 million (previous year: 1,120). Other provisions increased by €446 million to €1,825 million (previous year: 1,379). The increase of €377 million adjusted for currency effects is attributable to other environmental provisions of the Permanente Group, amounting to €280 million.

Operating liabilities, including liabilities from income taxes, rose by €362 million to €5,144 million (previous year: 4,783). Adjusted for positive exchange rate effects of €154 million, the rise amounted to €561 million. Of this figure, €479 million was attributable to trade payables.

The liabilities associated with assets held for sale amounting to €25 million primarily concern the liabilities of the disposal groups in Spain.

Consolidated balance sheet (short form)

€m	31 Dec. 2020	31 Dec. 2021	Part of balance sheet total 2021
Assets			
Intangible assets and property, plant, and equipment	21,763	**22,002**	65 %
Financial assets	1,992	**2,123**	6 %
Other non-current assets	1,268	**1,443**	4 %
Current assets	7,270	**8,017**	24 %
Assets held for sale	42	**125**	0 %
Balance sheet total	32,335	**33,711**	100 %
Equity and liabilities			
Shareholders' equity and non-controlling interests	14,548	**16,659**	49 %
Non-current liabilities	11,909	**10,005**	30 %
Current liabilities	5,861	**7,021**	21 %
Liabilities associated with assets held for sale	17	**25**	0 %
Balance sheet total	32,335	**33,711**	100 %

Key financial ratios

	2020	2021
Assets and capital structure		
Equity/balance sheet total	45.0 %	**49.4 %**
Net debt/balance sheet total	21.3 %	**14.8 %**
Equity + non-current liabilities/fixed assets	111.4 %	**110.5 %**
Leverage ratio	1.86x	**1.29x**
Gearing (net debt/equity)	47.4 %	**30.0 %**
Earnings per share		
Earnings per share (€)	-10.78	**8.91**
Profitability		
Return on total assets before taxes [1]	-4.2 %	**9.2 %**
Return on equity [2]	-13.3 %	**11.7 %**
Return on revenue [3]	-11.0 %	**10.4 %**

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 2021 financial year, ROIC (return on invested capital) was 9.3 % (previous year: 7.9 %). The disposal of the West region in the USA had a significant non-recurring effect on ROIC in 2021. Excluding the effects, especially the tax expenses of this disposal, ROIC was 9.9 %.

The calculation of ROIC is detailed in the following table.

Return on Invested Capital (ROIC)

€m	2020	2021
Result from current operations	2,363.2	**2,614.2**
Adjusted current tax expense on result from current operations	-476.4	**-627.0**
Net operating profit after taxes	1,886.8	**1,987.2**
Equity (incl. non-controlling interests)	14,548.4	**16,659.4**
Net debt	6,892.8	**4,999.4**
Loans and financial investments	-181.5	**-241.6**
Current interest-bearing receivables	-85.9	**-76.4**
Invested capital	21,173.8	**21,340.9**
Average invested capital	23,822.4	**21,257.3**
Return on Invested Capital (ROIC)	7.9 %	**9.3 %**

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 objective of financial management at HeidelbergCement is to ensure sufficient liquidity for the Group 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, i.e. 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 2021, our subsidiaries were financed primarily by HC Finance Luxembourg S.A.

The following table shows the repayments of HeidelbergCement Group in 2021.

Repayments of HeidelbergCement 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 9.5	1.00 %
Repayment	2013-12-12	7 years	2021-04-21	€m 500	3.25 %
Repayment	2016-03-30	6 years	2021-12-22	€m 1,000	2.25 %

The following tables show the financial liabilities of HeidelbergCement Group as at 31 December 2021.

Bonds payable						
Issuer (€m)	Nominal volume	Book value	Coupon rate in %	Offering date	Maturity date	ISIN
HC Finance Luxembourg S.A.	750.0	753.8	0.500	2018-08-09	2022-08-09	XS1863994981
HeidelbergCement AG	750.0	756.3	2.250	2016-06-03	2024-06-03	XS1425274484
HC Finance Luxembourg S.A.	650.0	650.7	2.500	2020-04-09	2024-10-09	XS2154336338
HeidelbergCement AG	1,000.0	1,006.5	1.500	2016-12-07	2025-02-07	XS1529515584
HC Finance Luxembourg S.A.	1,000.0	1,008.9	1.625	2017-04-04	2026-04-07	XS1589806907
HC Finance Luxembourg S.A.	500.0	500.1	1.500	2017-06-14	2027-06-14	XS1629387462
HC Finance Luxembourg S.A.	750.0	741.6	1.125	2019-07-01	2027-12-01	XS2018637327
HC Finance Luxembourg S.A.	750.0	752.0	1.750	2018-04-24	2028-04-24	XS1810653540
Total		**6,169.9**				

Bank loans					
Issuer (€m)	Nominal volume	Book value	Coupon rate in %	Offering date	Maturity date
Debt certificates					
HeidelbergCement AG	360.5	366.8	1.850	2016-01-20	2022-01-20
Syndicated facility					
HeidelbergCement AG	6.0	2.4		2018-01-12	2025-01-10
KfW-promoted loan					
HeidelbergCement AG		28.8	1.290	2016-06-24	2023-06-30
European Investment Bank-promoted loan					
HeidelbergCement AG	180.0	180.0		2018-01-04	2023-01-04
KfW-promoted loan					
HeidelbergCement AG		76.5	1.000	2019-08-08	2029-03-30
Others					
Other Group companies		82.0			
Total		**736.4**			

Other interest-bearing liabilities	
Issuer (€m)	Book value
Finance lease liabilities	
HeidelbergCement Group	1,059.1
Derivative financial instruments	
HeidelbergCement Group	89.8
Others	
HeidelbergCement Group	91.3
Total	**1,240.1**

Non-controlling interests with put options	
€m	Book value
Non-controlling interests with put options	79.9
Total	**79.9**

In some cases, the Group Treasury department also arranges credit lines for subsidiaries with local banks in order to accommodate legal, tax, or other conditions. Local financing is mainly used for particularly small volumes.

Financing measures
With available excess liquidity and the sale proceeds from portfolio optimisation, we were able to repay two bonds early: the €500 million bond with an original term until 21 October 2021, which was already repaid on 21 April 2021, and the €1 billion bond originally maturing on 30 March 2023, which was repaid early on 22 December 2021.

On 9 August, a share buyback programme was launched with a volume of up to €1 billion and a term ending on 30 September 2023. Under the first tranche of this programme, which was completed on 6 December, 5,324,577 shares were repurchased for €349.7 million and held as treasury shares. In January 2022, the Managing Board resolved to cancel all shares acquired within the first tranche (see Notes item 9.8).

We were able to successfully continue issuance activity in the money market and issued a total volume of €1.3 billion via our €2 billion Euro Commercial Paper Programme over the course of 2021. At the end of the year, issuance activity under the Commercial Paper Programme was gradually reduced in order to limit excess liquidity at the end of the year. As at 31 December 2021, none of the commercial papers issued by HeidelbergCement AG remained outstanding.

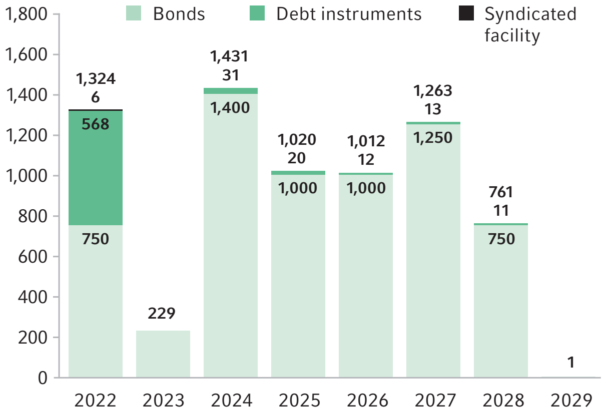
The revolving syndicated credit facility of €3 billion was available to HeidelbergCement as a liquidity reserve. As at 31 December 2021, the facility had only been drawn upon in the amount of €142.4 million. The free credit line thus amounted to €2,857.6 million at the end of 2021 (see following table). The credit line runs until January 2025. Factoring and reverse factoring programmes are also used. The financing volume of the factoring programmes amounted to €711 million (previous year: 947) as at the reporting date. As at the reporting date, there were trade payables of €378 million (previous year: 312) 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 new investments.

Credit line

€m	31 Dec. 2021
Syndicated Credit Facility (SFA)	3,000.0
Utilisation (cash)	6.0
Utilisation (guarantee)	136.4
Free credit line	**2,857.6**

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

Debt maturity profile as at 31 December 2021 [1] (€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.

As HeidelbergCement is rated investment grade, the covenant regarding the limitation on incurring additional debt, which applies if the consolidated coverage ratio of the Heidelberg-Cement Group is below 2, was cancelled pursuant to the terms and conditions of the bonds as well as the terms and conditions of the debt certificate. The consolidated EBITDA of €3,703 million and the consolidated interest result of €195 million are calculated on a pro forma basis pursuant to the terms and conditions of the bonds. At the end of 2021, the consolidated coverage ratio amounted to 19,02. The leverage ratio according to the credit agreements of the syndicated credit facility amounted to 1.32x (previous year: 1.90x).

The following table shows the main liquidity instruments as at 31 December 2021.

Liquidity instruments

€m	31 Dec. 2021
Cash and cash equivalents	3,115.1
Liquidable financial investments and derivative financial instruments	111.8
Free credit line	2,857.6
Free liquidity	**6,084.5**

Rating

In the 2021 financial year, the company's credit rating by the rating agencies Moody's Investors Service and S&P Global Ratings improved from Baa3 to Baa2 and from BBB- to BBB, respectively. The outlook for our credit rating is assessed as stable.

Ratings as at 31 December 2021

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

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

In particular, price effects in the fourth quarter as well as the solid sales volumes development led to the significant revenue and results growth and were thus in part significantly above the 2020 forecast. ROIC increased to 9.3% in 2021 in line with the forecast. The leverage ratio decreased to 1.29x and developed better than originally forecast.

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

	2020	Outlook 2020 (adjustments during the year)	2021
Revenue (€m)	17,606	Slight increase	18,720 (+6.3 %)
RCO (€m)	2,363	Slight increase (6M: strong increase)	2,614 (+10.6 %)
ROIC	7.9 %	Above 8 % (6M: clearly above 8 %; 9M: >9 %)	9.3 %
Leverage ratio	1.86x	Between 1.5x to 2.0x (6M: at the lower end of 1.5x-2.0x; 9M: below 1.5x)	1.29x

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 HeidelbergCement 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 HeidelbergCement 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 5.9 % in 2021 to €720 million (previous year: 680) as a result of both increases in sales volumes and higher prices. Revenue from intra-Group services rose by 13.0 % to €217 million (previous year: 192) as a result of extensive tasks in the context of HeidelbergCement AG's 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 €65 million to €937 million (previous year: 872).

Other operating income increased by €3 million to €18 million (previous year: 15) as a result of higher income from disposals of property, plant, and equipment.

Material costs increased significantly by €93 million to €387 million (previous year: 294) compared with 2020. This was attributable in particular to higher costs of energy and raw materials, as well as the expenses for emission certificates, which were recorded under material costs for the first time in the reporting year (previous year: reported under other operating expenses). Expenditure on wages, salaries, and social security costs decreased by €7 million to €257 million, despite the annual wage and salary adjustments due to the addition to personnel-related provisions in the previous year in connection with restructuring measures. Overall, personnel costs rose by €12 million to €277 million (previous year: 265), mainly as a result of the increase in the valuation parameter "pension increase rate" to 1.75 % p.a. (previous year: 1.50) connected with the revaluation of pension provisions. Other operating expenses decreased by €27 million to €239 million (previous year: 266), in particular due to the fact that expenses for emission certificates were recorded under material costs for the first time in the reporting year. Overall, earnings before interest and taxes (EBIT) remained almost unchanged at €13 million (previous year: 14).

The income from profit transfer agreements of €607 million (previous year: loss of €0.5) was received exclusively by HeidelbergCement International Holding GmbH, whose profit for the financial year was significantly influenced by dividends of €604.5 million from its subsidiaries. At €50 million (previous year: 49), results from participations remained almost at the previous year's level.

Income from loans declined by €16 million to €32 million (previous year: 48). Other interest and similar income decreased by €29 million to €98 million (previous year: 127). Write-downs of financial assets totalling €144 million (previous year: 0) relate in particular to the impairment of the participation Akçansa Çimento Sanayi ve Ticaret A.S. Turkey, amounting to €143 million. Interest and similar expenses fell by €54 million to €206 million (previous year: 260). The change in income from loans, other interest and similar income, as well as interest and similar expenses is due to the lower interest rate level for bonds and loans from intra-Group financing activities.

Through the in-house banking activities, the financing measures of the subsidiaries lead to currency positions 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 €15 million. Positive market values of €42 million are not recognised as assets. The currency result in the 2021 financial year deteriorated to €-24 million (previous year: -13).

Expenses for income taxes of €36 million (previous year: 48) include adjustments of €27 million (previous year: 34) in connection with a company audit for open assessment periods from 2005 onwards. Net profit for the 2021 financial year amounted to €392 million (previous year: net loss of -86), while balance sheet profit was €496 million (previous year: 440).

Adjusted for the special items from the reporting year, including in particular the income from the profit transfer agreement with HeidelbergCement International Holding GmbH and the impairment of the participation Akçansa Çimento Sanayi ve Ticaret A.S., the profit for the financial year remained at the previous year's level.

Balance sheet

The balance sheet total increased by €0.9 billion compared with the previous year to €27.4 billion (previous year: 26.5).

Total fixed assets remained unchanged from the previous year at €23.2 billion (previous year: 23.2). Inventories grew by €82 million to €172 million (previous year: 90). In addition to an increase in raw materials and consumables, this growth was due in particular to purchases of CO_2 emission rights. Trade receivables were slightly above the previous year's level at €8.7 million (previous year: 6.9). Receivables and other assets rose to €2.6 billion (previous year: 1.9), which was largely due to the increase in receivables from affiliated companies to €2.5 billion (previous year: 1.9). Cash at bank and in hand increased by €295 million to €1.5 billion (previous year: 1.2).

On the equity and liabilities side, the dividend distribution and expenses connected with the share buyback programme of €0.4 billion each, which were offset by a profit for the financial year of €0.4 billion, reduced equity by a total of €0.4 billion to €11.8 billion (previous year: 12.2). Provisions increased in comparison with the previous year to €0.9 billion (previous year: 0.8), mainly due to the €33 million increase in pension provisions and the €24 million increase in tax provisions. Liabilities rose by €1.3 billion to €14.8 billion (previous year: 13.5). This was mainly due to the increase of €2.3 billion in loans to affiliated companies to €12.2 billion (previous year: 9.9) in connection with intra-Group financial transactions. This was offset by the repayment of a bond in the amount of €1 billion.

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

The moderate increase in cement revenue compared with the previous year as well as the expected rise in intra-Group service charges led to an increase in total revenue, while our previous year's forecast assumed a slight decline.

As a result of the increased revenue, the adjusted net profit of HeidelbergCement AG was at the previous year's level (2020 forecast: slightly below the level of 2020).

Anticipated earnings

For 2022, we expect moderate revenue growth from intra-Group services. A reliable forecast of our operating business activities is currently not possible due to the very dynamic situation surrounding the Ukraine-Russia conflict. However, negative impacts on EBIT can be expected indirectly as a result of the very high volatility on the energy markets caused by the crisis.

Additional statements

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

On 31 December 2021, the subscribed share capital of HeidelbergCement AG amounted to €595,249,431. It is divided into 198,416,477 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, 25.01 % of the voting rights of shares in the company as well as rights of retransfer from securities lending to a further 1.71 % (instruments in the sense of section 38(1) no. 1 of the WpHG), together 26.73 %, according to the notifications available to the company as at 31 December 2021 in accordance with the German Securities Trading Law (Wertpapierhandelsgesetz, 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

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 12 January 2018	Credit and aval credit facility	3,000 [1]	to the extent still outstanding €150 million by 12 January 2024 and €2,850 million by 10 January 2025	(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)
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				
0.5 % bond 2018/2022	Debenture bond	750	to the extent still outstanding by 9 August 2022	(2)
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)
Debt certificates issued by HeidelbergCement AG				
of 20 January/10 February 2016	Debt certificate	361	to the extent still outstanding by 20 January 2022	(2)

1) Of this figure, €142.4 million was outstanding as at 31 December 2021.
2) Of this figure, €76.5 million was outstanding as at 31 December 2021.

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 2021, 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 purposes of acquisition of companies, or in the context of implementing of a dividend in kind/dividend option. As at 31 December 2021, the Authorised Capital 2020 had not been used.

Conditional Share Capital
In addition, the Conditional Share Capital described below existed as at 31 December 2021. 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 2021, 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 2021. 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. The company has made partial use of the authorisation since 10 August 2021 and has 5,324,577 own shares as at 31 December 2021, corresponding to 2.68 % of the share capital. Details on the own shares acquired in the financial year 2021 and held as treasury shares are given in the Notes item 9.8. On 13 January 2022, the Managing Board decided to cancel all acquired own shares by reducing the share capital. Details can be found in the Notes item 11.8 Events after the end of the 2021 financial year.

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 table on the previous page, pursuant to sections 289a sentence 1 no. 8 and 315a sentence 1 no. 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.

As at 31 December 2021, the following significant agreements of HeidelbergCement AG were contingent on a change of control within HeidelbergCement AG resulting from a takeover bid.

The relevant change of control clauses give the contractual partner or bearer of the bonds or debt certificates the right to immediately accelerate and to demand repayment of the agreement or outstanding loans, debenture bonds, or debt certificates 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 12 January 2018 and the loan agreements dated 4 December 2017 and 14 November 2019, all three 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 and debt certificates marked (2) in the type of clause column give each bearer of the debenture bond or debt certificate 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, in the case of the debt certificate, 100 % of the nominal amount or, in the case of debenture bonds, 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, or

- 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 request negotiations on the suitability of the safeguarding of the pension cover and these can be verified by means of a clearance procedure before the supervisory authority, which may lead to the adjustment of the securities.

The service agreements of the members of the Managing Board of HeidelbergCement AG provide for a severance payment in the case of early termination of membership of the Managing Board following a change of control, which is limited to 150 % of the severance pay cap. 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 2021 financial year

Information on the events occurring after the close of the 2021 financial year is provided in the Notes item 11.8.

Employees

Employee development
At the end of 2021, the number of employees at HeidelbergCement stood at 51,209 (previous year: 53,122). The decrease of around 1,900 employees essentially results from two opposing developments. On the one hand, around 2,600 jobs were cut across the Group as a result of portfolio optimisations, the realisation of synergies, efficiency increases in sales and administration, as well as location optimisations. On the other hand, around 700 new employees joined the Group, among others in North America, Australia, and at the Nordic Precast Group in Northern Europe.

Details of the headcount in the Group areas can be found in the segment reporting.

Corporate purpose and culture
In light of our "Beyond 2020" strategy and the increasingly fast pace of change in the business world, it is important to provide guidance to employees. With our corporate purpose "Material to build our future", we strengthen our common identity and emphasise what we stand for and what we want to stand for as a company. In addition, our culture principles serve as a guide in the Group for cooperation and the canon for values. An open feedback culture and the participation of our employees are important pillars of our culture principles. In June 2021, we therefore surveyed all employees at our headquarters on their views of aspects of strategy, culture, and leadership as well as their level of well-being and commitment. For more information on our corporate purpose and culture principles, please refer to the Strategy section.

Dialogue with employees
Qualified, motivated, and capable employees are a prerequisite for the sustainable success of HeidelbergCement. Identifying our employees' talents, developing them, and – in competition with other companies – retaining those employees with us are therefore at the core of the Group-wide personnel policy. This is supported by the HeidelbergCement competence model, which defines the essential professional and personal capabilities and skills that are critical for the success of our business. We aim to achieve the following three goals:

- to internally fill key positions with top-class personalities worldwide,
- to develop top talents at HeidelbergCement in a targeted way, and
- to prepare employees for management functions in the long term through individual development planning and thereby binding them to the Group

Ongoing training
Sustainable HR management means consistently investing in training, i.e. employing and training qualified talent. The outbreak of the coronavirus pandemic and the accompanying restrictions on contact have affected our training programmes. Despite the pandemic, the number of training participants has increased while the total number of training hours has decreased compared to the previous year. The expansion of virtual formats enabled training to be offered despite the restrictions of the pandemic.

As in the previous year, a focus of our training programmes throughout the Group was on occupational safety. Other priorities were specialist and technical training.

We devoted special attention to the challenges of mobile working. Training and information materials were offered on the professional use of digital programmes for virtual communication and cooperation as well as on how to deal personally with the new work and life situation and on the topics of mental health and resilience.

Management training
The motivation and skills of our managers play a crucial role in determining how well HeidelbergCement positions itself among its global competitors and how well-prepared the Group is for future challenges. In order to prepare our managers for their future tasks, we offer training programmes both for traditional topics, such as strategy, leadership, and management, or the method of capital expenditure budgeting, and special training topics, for instance in the area of technology. Coordinated training content ensures that a common understanding of strategy, integrated management approach, and leadership is developed everywhere.

Securing and advancing future executives
In 2021, we continued our efforts to advance future executives. We offer university graduates international trainee programmes focusing on the areas of technology, sales, finance, HR, and purchasing, as well as interdisciplinary trainee programmes with a special emphasis on digitalisation. Moreover, we continued to work on expanding our programmes for the advancement of future executives and strengthening our recruitment of university graduates and graduates with first professional experience worldwide.

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. The Aggregates Academy of the Competence Center Materials (CCM) offers training for the employees in the aggregates business line.

Demographic development
The age structure of our employees is as follows: About half of the employees are aged between 30 and 49. Just under 40% are over 50 years old and around 10% are younger than 30.

Diversity as a factor for success
In the Group-wide personnel policy, we aim for a mix of diverse nationalities, personalities, skills, and experience when putting together teams. 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. It is also reflected in our presence in international markets and our business environment. 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, thus increasing the overall performance of our company. We aim to achieve diversity in the following ways:

– local country management and an international management team,

– international workforce at the Group headquarters,

– complementary composition in our management and of teams (internationality, expertise, experience, age, gender, etc.).

– women in management positions reflecting the proportion of women in the total workforce in Germany.

With the international composition of our management team, we intend to benefit from a broad range of experience from different cultural backgrounds. This is linked to our goal of being able 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 the Group headquarters, we consciously aim to ensure that the workforce is composed of employees from the countries in which we operate, with the intention of thereby improving cooperation with local personnel.

For us, diversity also includes the appointment of women and men to management positions, thereby providing a true reflection of our employee structure. In accordance with legal requirements, we have set targets for the proportion of women in the first and second leadership levels below the Managing Board: by 30 June 2022, the proportion of women in Germany in the first and second leadership levels below the Managing Board is to be increased to 15 % each. In addition, at least one woman is to be a member of the Managing Board by 2025.

In Germany, we again increased the share of women in the first (17 %) and second (19 %) leadership levels below the Managing Board in 2021, thus achieving a value above the target value, as already in the previous year. In addition, Dr Nicola Kimm became the first woman to be appointed to the Managing Board with effect from 1 September 2021.

We want to continue this positive trend. In the first half of 2022, the Managing Board will determine a correspondingly adjusted target for the proportion of women in leadership positions in Germany in the first two levels below the Managing Board.

Share of women in Germany

	2018	2019	2020	2021
First leadership level	12 %	10 %	16 %	**17 %**
Second leadership level	13 %	14 %	16 %	**19 %**

We have worked specifically on the promotion of women in the last few years and are seeing the corresponding success. A big challenge remains the development in operational functions, such as sales and plant management, especially since the proportion of women studying technical subjects relevant for building materials production is comparatively low. Experience in these areas is a key qualification for assuming higher leading positions.

Work-life balance
In the competition for the best employees, we adapt ourselves to social changes worldwide. In our offerings to promote a good work-life balance, we focus on flexible working time models, digital forms of work, and a hybrid work culture

Non-financial statement

About this statement

Pursuant to sections 289b and 315b of the German Commercial Code (HGB), HeidelbergCement prepares a combined non-financial statement for HeidelbergCement Group 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 investment, and amending Regulation (EU) 2019/2088 (hereinafter: Taxonomy Regulation). For this Annual Report, HeidelbergCement 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 preparation of the non-financial statement is based on the GRI standards (2016) of the Global Reporting Initiative, which serve as a framework for HeidelbergCement's annual Sustainability Report, regarding compiling data on the material topics and presenting management concepts. The concepts and the explanations on the aspects are based on the structure of the GRI management approaches (GRI 103 Management Approach). The Sustainability Report 2021 will be published in May 2022.

Business model
Information on HeidelbergCement's 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 the Notes item 9.14.

Materiality analysis
We identified the topics that are relevant for HeidelbergCement as part of a materiality analysis, which was carried out in the fourth quarter of 2020. The Chief Sustainability Officer has confirmed that this analysis is also valid for the 2021 financial year. As part of the analysis, we compared the sustainability topics identified in the past with the topic series of the 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 and determining the impact and business relevance.

The relevance of sustainability topics to HeidelbergCement's non-financial statement results from their materiality in terms of their impact on the legally defined non-financial aspects:

- Environmental matters: environmental responsibility (the material topics of climate and emission protection, biological diversity, and sustainable products were assigned to this point),
- Employee matters: occupational health and safety,
- Social matters: social responsibility,
- Respect for human rights and anti-corruption and bribery matters: compliance (the material topic of compliance with competition law was assigned to this point).

Circular economy occurs as an interdisciplinary theme in several of the material topics listed above under Environmental protection.

The Environmental responsibility section also contains the information required by the EU Taxonomy Regulation. Pursuant to Article 10(3) and Article 11(3) of the Taxonomy Regulation, we report on the taxonomy-eligible revenues, investments, and operational expenses under the objectives of climate change mitigation and climate change adaptation.

Identification of risks
HeidelbergCement's 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 will be covered in the Sustainability Report 2021. HeidelbergCement has not identified any other significant 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 its own business development.

Environmental responsibility

The continuous improvement of climate and emission protection measures, the promotion of biodiversity, and the development of sustainable products are very important to us. HeidelbergCement's business model encompasses the entire value chain, from the extraction of raw materials to further processing into cement and the end product, concrete. The production of cement in particular is an energy-intensive process in which carbon dioxide (CO_2) and other substances are emitted.

Climate and emission protection

The 2015 Paris Climate Agreement aims to limit global warming to well below 2°C compared with pre-industrial levels. The agreement reached at the 26th UN Climate Change Conference in Glasgow in November 2021 confirmed that further limiting the temperature increase to 1.5°C would appreciably reduce the effects of climate change. To achieve this goal, 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 this is continually reduced over time.

For HeidelbergCement, CO_2 emissions play an important role in cement production. During the production of cement, the raw material, which consists primarily of limestone, is heated to around 1,450° C. This high temperature is achieved by burning fossil and alternative fuels, such as industrial and household waste. When the raw material's temperature exceeds 800° C during heating, the CO_2 in the limestone is released. These process-related CO_2 emissions make up around 60 % of the total emissions generated by cement production, according to the Global Cement and Concrete Association (GCCA); the remaining 40 % results from the combustion of the fuel used. The intermediate product created during the burning process is called clinker. This is combined with gypsum and other additives and ground into cement – the binder used in concrete – in a subsequent step.

Because concrete – the end product created with cement – is the most used substance on the planet after water, cement production makes up 6 % to 8 % of global CO_2 emissions, with over 4 billion tonnes of cement produced worldwide every year (of which more than 50 % in China), according to GCCA. The specific CO_2 output per tonne of cementitious material is currently 565 kg for HeidelbergCement, which is below the global average of 608 kg per tonne of cementitious material[1].

In addition to the issues of CO_2 emissions, dust, and noise, HeidelbergCement faces a particular challenge in terms of the air pollutant emissions from the cement business line. Air pollutants such as carbon monoxide (CO), sulphur oxides (SO_x), and nitrogen oxides (NO_x) as well as trace elements and hydrocarbon compounds are emitted during cement production. While dust and noise are emitted from different points in the production process, nitrogen oxides, sulphur oxides, and other air pollutants are mainly emitted from kiln lines.

Targets and commitments

We accept our share of the global responsibility to limit the rise in worldwide temperature to below 1.5° C. Our target is therefore to reduce our specific CO_2 emissions per tonne of cementitious material by 30 % compared with the 1990 level by 2025, and to achieve specific CO_2 emissions of well below 500 kg per tonne of cementitious material by 2030. By the end of 2021, a reduction of approximately 25 %[2] had already been achieved.

The above-mentioned reduction targets are based on calculations in accordance with the GCCA standard. They were reviewed in 2018 by the Science-Based Targets initiative (SBTi) using their calculation system, validated, and recognised as science-based in 2019. The SBTi referred to the reduction status already achieved by 2016 and based the verification on a reduction target for the remaining 15 % by 2030, based on the 2016 reference year.

To further reinforce our commitment to climate protection, HeidelbergCement signed the Business Ambition for 1.5° C commitment in June 2021 and, as part of this global initiative, committed to reducing our CO_2 emissions to net zero by 2050 at the latest. The company additionally joined the UN Race to Zero campaign in the run-up to the 2021 climate summit in Glasgow. We also actively support the SBTi's efforts to develop a roadmap and criteria for the cement industry in line with the 1.5° C target.

To reduce our carbon footprint, we will, for instance, increase the proportion of alternative fuels in the fuel mix to 43 % by 2030. At the same time, we plan to further intensify the use of alternative raw materials in order to decrease the clinker ratio – i.e. the proportion of clinker in cement. By using waste materials and by-products from other industries as alternative raw materials and fuels, we also promote the circular economy.

We also aim to reduce the specific SO_x and NO_x emissions per tonne of clinker generated in our cement production by 40 % in comparison with 2008[2]. The target of reducing specific dust emissions per tonne of clinker by 80 % was already achieved in 2019. In general, we aim to continuously reduce all other air emissions.

For the third time in a row, the global environmental non-profit organisation CDP awarded HeidelbergCement the highest rating "A" in the area of climate protection in its 2021 company rankings for its contribution to reducing emissions, mitigating climate risks, and promoting a low-carbon economy.

Responsibility and organisation

Environmental protection is an integral element of HeidelbergCement's business strategy. Since September 2021, responsibility for sustainability has been assigned to a new Managing Board member. The Chief Sustainability Officer (CSO) heads various internal working groups that deal with the different areas of focus of sustainability at HeidelbergCement. These working groups include experts for the various areas of focus, the directors of the Group departments ESG (Environmental Social Governance), Group Strategy & Development/M&A, and Group Communication & Investor Relations, as well as the directors of the technical competence centers. The task of the working groups is to accelerate the progress of operating activities with regard to sustainability and position HeidelbergCement as a company with clearly defined sustainability targets, as formulated in the Sustainability Commitments 2030, for example. The Supervisory Board also addresses different topics connected with sustainability and environmental protection on a regular basis. For the 2021 financial year, the Supervisory Board has introduced a CO_2 component into management remuneration. This links the reduction in CO_2 emissions to the annual bonus (see Remuneration report chapter).

The Group departments of the Sustainability Office, which was newly created in December 2021 and 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

1) According to GCCA data for 2019.
2) The reference values for the base years 1990 and 2008 are not included in the external voluntary audit to obtain limited assurance.

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.

As HeidelbergCement 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 HeidelbergCement is obligated to provide by law or by regulations, or has committed itself to providing voluntarily. The site management is essentially responsible for the environmental protection management of their respective plant.

The internal monitoring of all operating data relevant to the environment is carried out by the competence centers of the various business lines. The data is also checked by the ESG Group department and an external certifier before being published.

Processes

The internal sustainability working groups analyse the progress of the operating activities with regard to sustainability, report on the status of research projects and research cooperation arrangements, and further research measures are discussed 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.

Decisions on major investment projects such as the investment and reorganisation programme in France include an internal CO_2 price as a key decision criterion. 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.

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 to display 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 achieve our reduction targets for CO_2 emissions. The competence centers are responsible for providing the specialist advice and monitoring required in this area. Alongside the monthly reports, the Managing Board also regularly checks the progress made on achieving our objectives during on-site visits. Pandemic-related the majority of these visits had to be conducted virtually in the reporting year.

Policies

Environmental responsibility is a fundamental part of our Group strategy. Our Sustainability Commitments 2030 and our Code of Business Conduct demonstrate the central importance of environmental protection for the sustainable development of HeidelbergCement's business activities.

With our Climate Policy, updated in 2021, HeidelbergCement has set targets for reducing its own carbon footprint. 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 are reducing the specific CO_2 emissions of our products. Reducing our CO_2 emissions helps to safeguard the Group's future viability.

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. Compliance with these limits is a priority for HeidelbergCement. Failure to comply with the legal regulations could result in us losing our operating licence or jeopardise the renewal of our mining concessions. As part of its Sustainability Commitments 2030, HeidelbergCement has also pledged to reduce air pollutants.

Measures and progress

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. HeidelbergCement therefore invests in particular in studies into innovative techniques for the capture and utilisation of CO_2: 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. We test a variety of minerals for CO_2 absorption and the possibility of using them to produce marketable building products. You can find details of the most important ongoing projects in the Research and development section.

In 2021, we also further 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 household waste or biomass (e.g. dried sewage sludge or waste wood), as well as by-products and waste products from other industries. In scenarios like this, co-processing in clinker kilns for energy recovery is regarded as a worthwhile option that supports a circular economy, as this not only uses the waste's energy content but also embeds its mineral components into the clinker as raw material. The advantage is that the waste is co-processed without any residue, and our plants comply with the same strict emission standards as waste incineration plants.

During the reporting year, we also implemented measures to increase the use of alternative fuels. For example, in our cement plant in Couvrot, France, we realised a project to feed alternative fuels into the calciner. A sewage sludge dryer was built and commissioned at the Geseke cement plant in Germany.

Emissions of air pollutants are monitored 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.

In 2021, existing electrostatic precipitators were replaced by modern fabric filters in order to reduce dust emissions at various cement plants, including Deva in Romania, Citeureup in Indonesia, and Pukrang in Thailand. We also modernised the kiln cooler filters at the Ketton cement plant in the United Kingdom and, at the end of the year, began the same process at the plant in Bukhtarma, Kazakhstan.

In order to reduce NO_x emissions, selective non-catalytic reduction (SNCR) systems were commissioned and optimised at our Jingyang, Fufeng, and Zhujiang cement plants in China during the reporting year.

Performance indicators
In the 2021 business year, HeidelbergCement was able to reduce the specific net CO_2 emissions by a further 1.9 % to 565 (previous year: 576) kg CO_2/t of cementitious material. We achieved to further increase the share of alternative fuels while working at the same time on increasing the efficiency of the kiln lines. The clinker factor was reduced by 1.4 percentage points. Especially in regions with high clinker factors, an improvement was achieved by optimising the product portfolio.

Climate protection HeidelbergCement Group [1]

	2019	2020	2021
Specific net CO_2 emissions (kg CO_2/t cementitious material)	590	576	**565**
Alternative fuel rate	24.0 %	25.7 %	**26.4 %**
Clinker ratio	74.5 %	74.3 %	**72.9 %**

1) Previous year's figures are presented as published in the reporting year.

Specific dust emissions increased slightly compared to the previous year. This is mainly due to a defective filter in Kazakhstan, which could only be repaired with a time delay due to pandemic-related supply problems of spare parts.

Specific SO_x and NO_x emissions also increased slightly. The reason for this was the recording of specific SO_x and NO_x emissions of meanwhile 99 % (previous year: 94) of the emissions of all kiln lines worldwide, some of which have not yet been modernised. The part not yet covered in 2020 was included in the calculation with a Group average value that was lower than the values measured on site in the reporting year.

Emission control HeidelbergCement Group

	2019	2020	2021
Specific SO_x emissions (g/t clinker)	366	321	**333**
Specific NO_x emissions (g/t clinker)	1,273	1,230	**1,235**
Specific dust emissions (g/t clinker)	63	36	**39**

Biodiversity

HeidelbergCement operates mining sites worldwide, resulting in temporary changes in land use and both positive and negative impacts on a variety of locally specific habitats and species. 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 resemble the 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 different forms of subsequent use. In Europe in particular, our quarries are important refuges and stepping-stone habitats for protected species such as the sand martin, the yellow-bellied toad, the eagle owl, and the Eurasian otter.

We only extract worthwhile deposits if they can be exploited in an environmentally compatible and economical manner. Before making any decision concerning the development of a new quarry or the expansion of an existing one, the company first conducts an extensive approval process in line with the corresponding laws and regulations. Our sites are operated in accordance with relevant international, national, and local environmental legislation, and environmental impact assessments are generally prepared as a pre-requisite for the approval of quarrying activities.

Targets and commitments
As outlined in our Sustainability Commitments 2030, our 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 community. We also plan to integrate recommendations for the promotion of biodiversity into every new after-use plan. We want to implement biodiversity management plans at all locations within one kilometre of a recognised area of high biodiversity value. In the case of quarrying sites with nature-oriented after-use plans, we aim for a positive impact on species diversity.

Responsibility and organisation
The topic of biodiversity is assigned to the Group department ESG (Environmental Social Governance) Programs. This is part of the Sustainability Office, which was created in December 2021 and is 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.

Processes and policies
Knowledge transfer is an important part of the strategy as it underpins the operation of the quarrying sites and helps to ensure that the topic of biodiversity is given full consideration throughout the company. 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 quarrying sites. HeidelbergCement has formulated ten key biodiversity principles, which are set out in the Biodiversity Handbook. These principles guide those responsible on site on how to manage nature, make responsible decisions, and involve external stakeholders. In addition, we regularly obtain the Integrated Biodiversity Assessment Tool (IBAT), which provides decision makers with up-to-date information on biodiversity.

Measures and progress
As early as 2010, we began to collect and analyse information about the biodiversity value of our quarries. We collect data about the proportion of active quarries in areas with a high level of biodiversity and for which biodiversity management plans are being implemented. We are steadily extending biodiversity monitoring to more and more quarries.

The fifth edition of the Quarry Life Award, HeidelbergCement's nature-based research and education competition, was launched in May 2021. It aims to raise and further improve awareness of the environmental value of quarrying sites. The company uses the projects carried out within the framework of the Quarry Life Award as a basis for developing best practices and innovative ideas for the management of extraction sites. These practices and ideas are then discussed in the Biodiversity Expert Group and their implementation is reviewed.

In 2021, we marked the tenth anniversary of our partnership with BirdLife International. To celebrate this milestone, a virtual event took place in October at which a cooperation agreement was signed for the next three years and a joint statement on restoration was published. In advance of the anticipated EU nature restoration law, this joint statement calls on the European Commission to develop legally binding and scientifically substantiated goals for restoring nature based on strong governance mechanisms. It also contains a number of demands directed at policymakers to support the raw materials sector's contribution to restoration throughout Europe.

As part of a collaboration initiated by HeidelbergCement between our industrial sector and BirdLife Europe, a code of conduct for species protection was drawn up and then approved by the European Commission in October 2021. This code of conduct offers a standardised approach to maximising biodiversity in quarries, while at the same time complying with European legislation and allowing quarrying activities to continue. The code of conduct and the guidelines published by the European Commission in 2021 are the first step in promoting acceptance of the concept of "temporary nature" and support Member States in incorporating species protection into their national laws. The code is intended to stimulate discussions at country level between regulatory authorities and quarrying companies in order to help establish a legally compliant pathway towards nature conservation in active quarries.

Sustainable products

Sustainable construction is made possible to a large extent by the use of sustainable building materials. We are therefore working on innovative, environmentally and socially responsible products that help buildings to be more sustainable over their life cycle (see the 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 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 in many of our alternative products also allows us to make an active contribution to the circular economy.

Our products comply with current local product standards, such as EN 197-1 for cements in Europe. In the reporting year, we expanded our activities in the field of sustainable products, combined previous initiatives, and laid the foundation for a Group-wide approach to the topic. Under the leadership of the CSO, a working group was formed specifically to define relevant sustainability criteria for HeidelbergCement that will serve as a future benchmark for our building materials cement, concrete, aggregates, and asphalt. The focus is on the carbon footprint and the circular economy capability of the individual products.

Targets and commitments

Sustainable building materials with the lowest possible carbon footprint are playing an increasingly important role for us and our customers. In line with our Sustainability Commitments 2030, we investment in researching and developing innovative low-carbon production technologies and products, and advancing a portfolio of sustainable products in every Group country. In the various Group countries is to be ensured that the portfolios are assessed consistently with regard to sustainable products and that the revenues generated with those products are recorded on a standardised basis[1]. In 2022, we will establish initial definitions for individual product categories and implement reporting.

We are also involved in Green Building Councils (such as the German Sustainable Building Council) and similar organisations in order to advance the development of sustainable products together with our customers.

Responsibility and organisation

In dialogue with our customers, the responsible staff in the Group countries explore the need for new sustainable products for their respective markets. The development of these products is often supported by the Group's central Research and Development department.

The topic of sustainable products is assigned to the Group department ESG (Environmental Social Governance) Programs. This is part of the Sustainability Office, which was created in December 2021 and is headed by the Chief Sustainability Officer (CSO).

Processes and policies

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. 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.

Measures and progress

The use of by-products from other industrial sectors for the production of clinker and cement or the recycling of demolition concrete enable us to manufacture concrete in a more resource-efficient way and with lower CO_2 emissions. 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 also Research and development section).

In 2021, ready-mixed concrete plants in Germany, Italy, and the USA obtained CSC certification, as did cement plants in Germany, Italy, and Turkey, and sand and gravel plants in Germany, Belgium, and the Netherlands. Our cement plant in Lengfurt, Germany, was the first cement production site in the world to be awarded a CSC platinum certificate – the highest level of certification. Likewise, our subsidiary Heidelberger Beton GmbH was the first concrete manufacturer in the world to receive this top certification for two of its production sites.

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 are actively involved in the German Sustainable Building Council (DGNB) and as an official partner in the Europe Regional 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 EU Whole Life Carbon Roadmap Technical Working Group, 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 through personnel resources in various national Green Building Councils, the European Construction Technology Platform, and other associations in order to support and accelerate developments in the area of sustainable construction and the associated market transformation.

Information according to the 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.

In 2020, we set up an interdisciplinary working group to implement the taxonomy requirements across the Group. In preparation for the entry into force of the full reporting obligations within the framework of the Taxonomy Regulation, we have audited our locations for the requirements of the "substantial" contribution and the "do no significant harm" criteria, as far as already possible. We have also adjusted internal reporting structures so that we will be

1) The revenues that we will allocate here to our sustainable products are not aligned with the definitions of the EU Taxonomy Regulation.

able to report taxonomy-aligned revenue, investments, and operating expenses from the 2022 reporting year. At the same time, we are working in close cooperation with our locations in order to achieve the EU's ambitious objectives as comprehensively as possible throughout the Group.

Reporting for the 2021 financial year is in accordance with the requirements of Article 8 of the Taxonomy Regulation. According to the Delegated Acts pursuant to Article 10(3) and Article 11(3) of the Taxonomy Regulation on the objectives of "climate change mitigation" and "climate change adaptation" is the manufacture of cement (3.7) the only recognised taxonomy-eligible economic activity at HeidelbergCement. Aggregates, ready-mixed concrete, asphalt production, and other business activities are not taxonomy-eligible within the scope of these two objectives. The environmental objective "climate change mitigation" is particularly relevant for HeidelbergCement.

For 2021, the ratio of taxonomy-eligible economic activities to taxonomy-non-eligible economic activities must be reported. According to our interpretation of the requirements, this includes:

- Revenue of the cement business line in relation to the total revenue of HeidelbergCement
- Investments (CapEx) of the cement business line in relation to the total CapEx of HeidelbergCement
- Operating expenses (OpEx) of the cement business line in relation to the total OpEx of HeidelbergCement.

The "Draft Commission notice on the interpretation of certain legal provisions of the Disclosures Delegated Act under Article 8 of EU Taxonomy Regulation" (hereinafter: FAQs) published by the EU on 2 February 2022 shows a significantly broader interpretation of taxonomy eligibility for CapEx and OpEx. For our other business lines (besides the cement business line), investments or operating expenses resulting from purchases of products from taxonomy-eligible economic activities or individual measures to improve energy efficiency can also be classified as taxonomy-eligible according to the Taxonomy Regulation. This interpretation, which contradicts HeidelbergCement's previous interpretation, could not be implemented retrospectively due to the publication of the FAQs during the preparation of the financial statements, which was already at an advanced stage.

The detailed data collection process for the taxonomy is documented in a separate internal process instruction. In order to determine the cement business line's key figures of revenue and OpEx, which are based on components of the income statement, reference is also made to a further internal guideline, which states that the section from revenue to earnings before interest and taxes (EBIT) is to be reported by business line as standard. This separate disclosure by business line applies analogously to CapEx. By using the standard reporting system in the income statement and CapEx, including the accounts and business lines available there, double counting of revenues, investments, or operating expenses in more than one of the categories described below can be avoided.

Revenue is defined as the revenue shown in the consolidated income statement that relates to revenue from contracts with customers pursuant to IFRS 15. The taxonomy-eligible revenues are in accordance with the breakdown of revenue by business line in the Notes under item 7.1.

Additions of tangible and intangible assets (including as a result of business combinations) before depreciation, amortisation, and impairment are regarded as CapEx pursuant to IAS 16 (Property, Plant and Equipment), IAS 38 (Intangible Assets), and IFRS 16 (Leases). The right-of-use assets to be accounted for by the lessee are therefore also recorded as CapEx for the purpose of the Taxonomy Regulation. The taxonomy-eligible investments differ from the breakdown of investments by business line in the Investments section, as only the cash-relevant investments in property, plant, and equipment, including intangible assets (in accordance with the cash flow statement), are broken down here. Investments from business combinations, additions from right-of-use assets and non-cash-relevant investments are not part of this reporting.

The presentation of intangible assets (Note 9.1) and property, plant, and equipment including "right-of-use assets" (Note 9.2) in the notes to the balance sheet includes additions from ordinary business operations (see line "Additions") as well as additions from business combinations. However, the additions from business combinations are not shown separately, but accumulated with the disposals from divestments in the amount of € 11.6 million (see line "Change in consolidation scope").

The following non-capitalised expenses are considered OpEx:

- Research and development:
  Expenditure on the development of basic technologies, process innovations, and the optimisation of products and applications 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 expenses for short-term leases and low-value assets:
  Expenses that meet 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 expenses 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 expenses 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 expenses for repair and maintenance).

- All other direct expenses relating to the daily maintenance of property, plant and equipment necessary to ensure the continuous and effective functioning of these assets: Expenditure on external consulting fees relating to production, technology, and operational improvements.

When calculating the taxonomy-eligible OpEx, only the expenses attributable to the cement business line are taken into account for the numerator.

With regard to the full application of the Taxonomy Regulation from the 2022 reporting year, we anticipate a large difference in percentages between taxonomy-eligible and taxonomy-aligned revenue, investments, and operating expenses, owing to the strict criteria of the Regulation.

Revenue, investments, and operating expenses according to the Taxonomy Regulation HeidelbergCement Group in 2021

%	Taxonomy-eligible in %	Taxonomy-non-eligible in %	Total €m
Revenue	51.2	48.8	**18,719.9**
Investments [1]	57.0	43.0	**1,954.4**
Operating expenses	55.9	44.1	**1,470.3**

1) Excluding financial investments

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. Occupational illnesses range from temporary illnesses such as back problems to permanent health problems 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 continuously strive to minimise the risks for our employees, contractors, and third parties and to achieve our target of zero harm, which we also confirmed in our Sustainability Commitments 2030.

Responsibility and organisation

At HeidelbergCement, 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. The Managing Board members responsible for the different Group areas are in turn supported by H&S advisors who report to them.

Each country also has an H&S advisor reporting directly to the country manager, who 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 measures are part of the personal target agreements of the members of the Managing Board and operating top management in the countries, who break down these measures to the relevant target groups at location level. Last but not least, all employees, contractors, and visitors are responsible for following the occupational safety regulations.

Processes

Occupational health and safety management systems, such as the internationally accepted ISO 45001 standard, have already been implemented in 98 % 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 solution in which all accidents are recorded, and their investigation and necessary corrective actions are documented and tracked. An accident event cannot be closed in HC Protect until the causes of the accident have been analysed and corrective or preventive actions have been defined. We share the findings across the Group in the form of safety alerts in order to prevent similar accidents at other locations. Fatal accidents are also discussed by the Managing Board.

In addition, we use HC Protect to record and analyse other occupational safety aspects in order to derive actions from them. This data is used at all management levels for monthly reporting.

Policies

In all countries, occupational health and safety is subject to various strict legal requirements that have to be fulfilled. Furthermore, as a member of the Global Cement and Concrete Association (GCCA), HeidelbergCement complies with its requirements. 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 and must be translated into local regulations.

In 2021, we introduced a further Group standard, which harmonises preventive health care with regard to protection against dust, noise, and vibrations and the previous local approaches. This standard addresses hazards that are responsible for most occupational illnesses and provides management with guidelines for monitoring these hazards.

Measures and progress

As a first step towards implementing the new standard on preventive health care, all countries carried out target/actual analyses in the reporting year and defined measures to address the identified gaps.

We have also placed a stronger 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 then be investigated in full, even if no one was harmed. The incident can only be approved and closed by a manager once a complete root cause analysis has been carried out and corrective actions have been defined.

The steps taken in 2020 regarding travel restrictions and protective measures at the individual locations in response to the coronavirus pandemic were continued in the reporting year and adapted to the relevant local infection situations and regulations in order to prevent the spread of the virus. These steps included training staff on hygiene measures, providing disinfectants, installing physical partitions, dividing working groups into smaller teams, switching to virtual meetings, closing canteens, and, if permitted by local authorities, having employees vaccinated by company doctors. We record all coronavirus cases in the Group so that we can respond appropriately to each outbreak.

In 2021, we trained our employees in a range of occupational safety topics that are both legally mandated and defined internally. We want to raise awareness of risks and reduce the number of accidents, especially those resulting in fatalities. After a fatal accident at the end of 2020, for example, we shot an educational film to make employees aware of the risks involved in working on assembly lines. This film has been incorporated into various training activities.

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. Owing to the pandemic-related restrictions, face-to-face training only took place in 2021 if hygiene and distancing rules could be observed. Occupational safety topics account for around 52 % of all training hours at HeidelbergCement, corresponding to an average of approximately 13 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. We record the results of these conversations in HC Protect so that, for example, we can detect local pockets of unsafe behaviour. Since 2017, we have more than tripled the number of safety conversations held within the Group.

Performance indicators

In 2021, we decreased the accident frequency rate across the Group only slightly by 1,7 %. However, there were no (previous year: 2) fatalities among our own employees due to occupational accidents. This is the first time that we have achieved a major subgoal of our Sustainability Commitments 2030. Although we were also able to reduce the number of deaths of employees from external companies, a (previous year: 3) fatal accident did occur in which an employee from an external company was killed in a fall at one of our plants.

Accident trends HeidelbergCement Group

	2019	2020	2021
Lost time injury frequency rate[1]	1.5	1.6	**1.6**
Lost time injury severity rate[2]	80	86	**95**
Fatality rate[3]	0.7	0.4	**0.0**

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

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. At our locations, local employees are given management responsibility wherever possible. In the reporting year, the proportion of local employees in top and senior management teams amounted to around 80 % as in prior years. Our plants collaborate closely with local suppliers and service providers. And we continue to 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).

Because of the long periods of operation, people in the communities where we operate expect us to contribute to the areas surrounding our production sites by regularly providing information about our business activities and our commitment to local social, economic, and environmental development. In the course of our business activities, there may 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.

Targets and commitments

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 want to ensure 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.

Responsibility and organisation

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 officer, is responsible for social engagement in each country. At Group level, the topic of CSR is assigned to the Group department ESG (Environmental Social Governance) Programs. This is part of the Sustainability Office, which was created in December 2021 and is headed by the Chief Sustainability Officer (CSO).

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.

Processes

We involve local communities in our business activities through various dialogue formats as well as community engagement plans. These strategies also include long-term partnerships with non-governmental organisations. In addition, we keep the local communities and stakeholders informed via newsletters or at open days. However, because of the pandemic-related restrictions many activities were limited or did not take place at all during the reporting year. Internal guidelines and experience sharing are useful sources of design and implementation strategies for dialogue formats, partnerships, and charitable engagement for countries and locations.

Policies

The internal CSR Policy defines the benchmarks and objectives related to our social engagement. This engagement is focused on areas in which we have specific expertise:

- Environment: we support initiatives that promote environmental protection and strengthen the diversity of nature at our locations.
- Education: in this area, we are guided by the specific needs of our locations.
- Infrastructure: we provide practical help in the construction of buildings and infrastructure by making products, financial means, and expertise available.

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.

In 2021, the Group took further steps to strengthen its management and reporting processes and improve the structure of our social engagement in the various countries. The aim is to make this engagement more systematic and more transparent, as well as more efficient and targeted. In addition to developing internal guidelines on structuring CSR programmes and on the topic of corporate volunteering, we have delivered appropriate training. Our cooperation with Group Internal Audit has been expanded and further audits have been carried out, particularly in connection with donations and CSR activities.

Measures and progress

We took various measures and promoted various initiatives during the reporting year. At our plants in Egypt, we supported local communities, for example by donating clothing and food in connection with Eid al-Fitr. Another focus in 2021 was on strengthening and initiating corporate volunteering programmes. At some locations, neighbourhood initiatives were implemented in 2021 through corporate volunteering. For example, programmes were set up in Bosnia-Herzegovina and for employees at our headquarters through which they have been able to engage in community activities during working hours.

Performance indicators

As part of our Sustainability Commitments 2030, we defined specific performance indicators that will allow us to measure the quality of our relationships with the communities at our locations. These indicators are already being tracked internally but cannot yet be reported externally owing to the variety of source data and recording systems used across the Group. This will be possible in the future thanks to a digital management and reporting system, which we introduced at the end of 2021. We therefore plan to report on the following performance indicators in the future:

- percentage of locations with a community engagement plan (target: >99 %),
- total value of annual donations (monetary/material donations),
- number and type of development programmes supported by HeidelbergCement,
- hours of corporate volunteering per year (target: 60,000 hours per year).

Compliance

Main priorities

Corruption

HeidelbergCement's business activity involves significant cash flows, particularly in sales, purchasing, financing, and investments, providing opportunities for corruption in all countries of the world. Applying Transparency International's Corruption Perceptions Index as a benchmark, it follows that many of the countries in which HeidelbergCement operates have an increased risk of corruption because of the Group's broad geographical positioning.

Competition law

As HeidelbergCement's products are largely standardised, competition is heavily dictated by price. In addition, the markets in which HeidelbergCement operates 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

At HeidelbergCement, working with heavy machinery or in logistics poses a potential risk to safe working conditions. This is also a significant human rights risk at our suppliers and service providers. The extraction of raw materials can lead to conflicts with the rights of the population.

Targets and commitments

All laws and internal guidelines relating to corruption and human rights must be observed. We apply a zero tolerance policy to violations. We also aim to completely prevent all violations of antitrust law.

HeidelbergCement is committed to upholding the principles of the eight core labour standards of the International Labour Organisation (ILO), the OECD Guidelines for Multinational Enterprises, and the United Nations Guiding Principles on Business and Human Rights. We expect our employees and business partners worldwide to comply with these central guidelines and recommendations. Suppliers are also obligated to comply with our Supplier Code of Business Conduct.

As a member of the UN Global Compact, we are committed to incorporating the ten universal principles in the areas of human rights, labour standards, environmental protection, and corruption prevention as integral elements of our strategy, corporate culture, and day-to-day business. In this context, we will increase our involvement in community projects in order to play our part in achieving the development goals of the United Nations, particularly the sustainability goals. We report annually in our Sustainability Report on our progress on the implementation of projects and the achievement of objectives, in accordance with the rules of the UN Global Compact.

Responsibility and organisation
The compliance programme, which is firmly 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 HeidelbergCement has identified as relevant in the compliance risk assessment. These include, in particular, anti-corruption, competition law, and human rights.

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 with a direct reporting line to the country manager. However, responsibility for ensuring that employees' conduct complies with the law and regulations lies with all managers and ultimately with the employees themselves.

Processes
The compliance programme integrated across the Group serves as a cornerstone for achieving our compliance goals. 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 to regular communication of these guidelines, there are compliance letters and video messages to the management and the entire workforce, such as the annual letter from the Chairman of the Managing Board and memoranda on current issues, to raise awareness of the topic of compliance. 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 must be completed by specified groups of employees, covers topics such as the Code of Business Conduct (e.g. discrimination and harassment at the workplace), competition law, and the prevention of corruption. In order to achieve the goal of 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 e-mail address or employees of specific departments and/or managers. These training courses are mandatory for new hires and are repeated approximately every two years. In addition, training sessions were conducted on other compliance topics such as human rights or money laundering. Pandemic-related these sessions were also increasingly offered online.

The entire compliance programme is reviewed on an ongoing basis for any necessary adjustments with regard to current legal and social developments, and it is improved and developed accordingly. Violations of applicable laws and internal guidelines will be sanctioned. In addition, suitable corrective and preventive measures are taken to help prevent similar incidents in the future.

Group-wide implementation of the compliance programme is monitored by regular and special audits by Group Internal Audit as well as via special half-yearly compliance 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 regularly informs the Managing Board members with regional responsibility about the most important compliance incidents in their Group areas. The adequacy of the compliance management system of HeidelbergCement AG was audited with a focus on corruption prevention by an external auditing company in 2021 on the basis of the auditing standard IDW PS980.

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 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 antitrust 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 Antitrust Compliance Programme by a specialist law firm is conducted every three years.

We also carry out risk assessments on the topic of human rights in our country organisations. Among other issues, this explicitly examines the risk of violating the rights of indigenous peoples. The analysis includes identifying potential risks and existing measures as well as determining additional measures to be implemented. The aim is to repeat these risk assessments regularly at an interval of approximately three years. The commitment to human rights aspects as a central selection criterion for suppliers is consistently driven forward by our supplier management system. This requires our partners to commit to our Supplier Code of Conduct, which requires, for example, compliance with the ILO's core labour standards. We also work with an external sustainability partner with whom we assess the top-selling suppliers in North America, Germany, and the United Kingdom, as well as the global suppliers in the Group. This involves analysing the suppliers in terms of the sustainability of their operations – including questions about compliance with human rights. Additional local and global measures to evaluate suppliers from a sustainability perspective are laid down in the Group-wide purchasing policy. Already at the end of 2021, we have started to expand our system of risk-based supplier management, thereby meeting the requirements of the German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz, LkSG) in good time.

Policies

In all the countries in which we operate, we comply with and respect the applicable laws and provisions. They form the legal basis for our business activity.

Our compliance principles are anchored in the Code of Business Conduct, which among other things also addresses the handling of company property and business secrets.

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 HeidelbergCement 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. Internally, HeidelbergCement has made an express commitment to strict compliance with antitrust laws in its Code of Business Conduct as well as with the Group Competition Law Guideline and the national antitrust law guidelines that are based on them.

HeidelbergCement's position on human rights is a commitment by the Group to respect human rights. It addresses employees' working conditions, responsibility at our locations (including the rights of indigenous peoples), the selection of suppliers and customers, and the implementation and monitoring of compliance with human rights targets.

Our Group Compliance Incident Reporting & Case Management Guideline defines the principles for reporting compliance issues, for processing and investigating submitted complaints, and for protecting those reporting the incidents.

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 HeidelbergCement or require them to meet certain test conditions. 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 2021, the preventive activities of the compliance officers once again placed great emphasis on compliance with the provisions of competition law and anti-corruption regulations. This was backed by appropriate auditing and training measures in these areas.

Owing to the health protection measures introduced in connection with the coronavirus pandemic, less face-to-face training was conducted, and we were unable to compensate fully for this by means of virtual training measures. Compliance audits by Group Internal Audit could only be carried out virtually, which meant that individual audits that needed to be carried out on-site had to be postponed.

In 2021, we continued to systematically assess human rights risks and compile key indicators relating to human rights in each country. The results are analysed jointly by the respective country organisation and Group Compliance. The implementation of the agreed action plans for further risk reduction is reviewed.

Performance indicators

In 2021, a total of 238 incidents were reported in our case management system and investigated under the supervision of compliance employees in the country organisation or by Group Compliance. 74 % of these cases were reported via our compliance reporting system "SpeakUp", of which 79 % were reported online and 21 % by telephone. In the case of 26 % of all incidents, the reporters used other channels such as e-mails or letters. Most reports concerned employee relations, accounting for 40 % of the total number of cases. 15 % of the reports related to health and safety, 8 % concerned fraud, theft, or embezzlement, and 9 % pertained to corruption or conflicts of interest. Other incident categories accounted for lower percentages of the total. Of the 238 incidents reported, 50 % proved to be unfounded, while for 16 %, no final investigation result had been determined by the editorial deadline. In the case of 35 % 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 were taken and for 64 % of these incidents, preventive measures were implemented.

During the reporting year, the compliance e-learning programmes given to employees across the Group, covering the Code of Business Conduct and anti-corruption issues, had completion rates of 94 % and 95 % respectively.

In the reporting year, electronic training on antitrust law was also assigned to employees who work in sales or purchasing, have management responsibility, or otherwise have contact with competitors, customers and suppliers, achieving a completion rate of 92 %. There were also other compliance activities in the area of antitrust law (seminars, lectures, and other measures).

The country organisations are required to report performance indicators on the human rights situation. Apart from cases on health and occupational safety, three cases of discrimination were reported in relation to human rights issues, one of which was confirmed, and two cases of harassment, also with one justified complaint. The confirmed cases were responded to with disciplinary measures, targeted support for those affected and preventive measures. We also investigated one case of complaints about unfair working conditions at suppliers working for us in Togo. In consultation with the suppliers' management, an action plan to ensure employee rights was established and implemented.

Procurement

In the reporting year, goods and services with a total value of €12,470 million were procured at HeidelbergCement. This corresponds to 66.6 % of total revenue.

Procurement management
Our lead buyer organisation facilitates the procurement of important commodity groups at Group level. This means that 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 lead buyers 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.

Procurement of energy
Overall, HeidelbergCement 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. HeidelbergCement also continuously optimises the fuel mix according to market price fluctuations.

Outlook

The expected economic environment and the future development of the HeidelbergCement Group in 2022 are described in the following. In this context, please note that this outlook contains forward-looking statements based on the information presently available and the current assumptions and forecasts of the Group management of HeidelbergCement. Such statements are naturally subject to risks and uncertainties and may therefore deviate 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 geopolitical, macroeconomic, regulatory, and weather-related factors. This outlook is based on the assumption that the global political environment will not undergo any critical changes during the outlook period.

This assumption has already been overtaken by Russia's war against Ukraine. At the time of preparing the consolidated financial statements, the specific dimension of the war and the consequences for our business activities in the full year 2022 cannot be estimated. These can therefore not be considered in detail. We continue to assume that the coronavirus pandemic will become endemic due to vaccination progress and that there will be no new increase in infection with drastic restrictions on the economy due to further mutations of the virus. Possible further international tensions are also not included in our forecast.

Crucial factors for the development of the construction industry include the local economic cycle, weather conditions, the level of public investments, and the credit costs for real estate financing. 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 earnings positions 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 supply chain problems, high inflation, particularly in energy prices, and the consequences of the Omicron wave, the International Monetary Fund (IMF) expected in its January 2022 forecast a plus of 4.4 % for global economic output in 2022.

Euroconstruct and PCA, among others, also forecast a predominantly positive development for worldwide construction activity in 2022, which should also benefit HeidelbergCement.

At the time of preparing the Group financial statements, the global political situation had changed drastically due to the Russian invasion in Ukraine. Due to the very dynamic development of the situation, it is currently not possible to make a reliable forecast about the dimension of the impact on our business activity. The Managing Board expects smaller direct impacts on HeidelbergCement's business activity. HeidelbergCement is no longer represented in Ukraine since the disposal of its activities in 2019. In Russia, we operate three cement plants that supply their respective local markets and do not export. The contribution of our Russian activities to Group revenue amounts to around 1 %. However, negative impacts also on the key performance indicators can be expected indirectly as a result of the very high volatility on the energy markets, particularly in Europe, caused by the crisis.

For the key performance indicators, the company expects – subject to further developments in the Russia-Ukraine war – a slight improvement in the 2022 business year.

The Managing Board continues to assess HeidelbergCement's 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 opportunities report).

Economic environment

General economic development

The situation after the Russian attack on Ukraine is developing very dynamically. Therefore, forecasts of further developments are subject to considerable uncertainty. Already now, the global economic consequences are very serious. Energy and commodity prices have risen significantly in a very short time and are adding to the inflationary pressure created by supply chain problems and the consequences of the pandemic. The international sanctions against Russia and price shocks will also have a significant impact on the global economy and financial markets.

In its January 2022 forecast, the International Monetary Fund (IMF) expected global economic output to increase by 4.4% after an estimated growth of 5.9% in the previous year. Various factors will determine the dimension of the recovery of national economies, such as access to vaccines and the effectiveness of political measures against the pandemic. The further development of the Russia-Ukraine war will play a central role for international trade relations as well as energy and commodity prices.

In its October 2021 and January 2022 forecasts, the IMF expects the following growth rates for HeidelbergCement's most important sales markets:

Expected growth in real GDP [1]

in %	2022	in %	2022
Western and Southern Europe		**North America**	
Eurozone	+3.9	Canada	+4.1
Germany	+3.8	USA	+4.0
France	+3.5	**Asia-Pacific**	
Italy	+3.8	Australia	+4.1
United Kingdom	+4.7	China	+4.8
Northern and Eastern Europe-Central Asia		India	+9.0
		Indonesia	+5.9
Czechia	+4.5	**Africa-Eastern Mediterranean Basin**	
Norway	+4.1	Egypt	+5.2
Poland	+5.1	Ghana	+6.2
Russia	+2.8	Morocco	+3.1
Sweden	+3.4	Tanzania	+5.1
		Togo	+5.9

1) Source: International Monetary Fund (IMF), October 2021 and January 2022 forecasts

For the business year 2022, we expect energy prices to be significantly influenced by the Russia-Ukraine war and related sanctions, but also by China's coal import and price policy and OPEC's oil production policy.

Since September 2021, energy prices for electricity, natural gas, coal, petroleum coke and oil have already risen massively. This trend has intensified since the end of February with the start of the Russia-Ukraine war. Based on our current contract portfolio, expected price volatility and a mix of forward market and spot purchases, we expect energy prices to rise sharply for the full year 2022 - for electricity in Europe, globally for diesel and in all Group areas except North America for coal. Due to the strong increase in electricity prices in Europe, the Group areas Western and Southern Europe as well as Northern and Eastern Europe-Central Asia will be particularly affected by the cost increases based on the current market situation.

Development of the construction industry
The development of economic output is also reflected in the expectations for the construction industry.

In its November 2021 forecast, Euroconstruct predicts a further increase in construction activity in Europe in all construction sectors in 2022. Positive development in the construction sector is expected in Belgium, the Netherlands, France, the United Kingdom, and Germany, while construction activity in Sweden is expected to decline slightly.

According to the autumn forecast of the American cement association PCA, a slight increase in construction activity is expected in the USA for 2022. Growth will be driven primarily by residential construction.

The Australia Construction Industry Forum expects an increase of 2.0 % for the Australian construction industry. This will be supported in particular by rising public-sector infrastructure spending.

In contrast to the mature and developed countries, the GDP growth forecasts and data on population growth are frequently used indicators for construction development in the growth markets of emerging countries in Africa and Asia.

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 61%. The existing benchmarks will apply to the first half of the fourth trading period. For the years from 2026 onwards, changes are anticipated that will lead to a further significant shortage of CO_2 certificates in general and free allocations in particular.

In addition, a Carbon Border Adjustment Mechanism (CBAM) has been announced, which is to be gradually implemented from 2026 and will impact the cement industry, among others. A ten-year implementation phase is currently planned, with a successive reduction in the level of free allocations by 10 % per year. At the same time, a CO_2 import fee is to be successively levied on cement imports, with an annual price increase of 10 % until it reaches 100 % in 2035

Due to the announced measures within the EU ETS, a significant shortage in the allocation of CO_2 emission rights is to be expected within the fourth trading period. Prices for emission rights have already risen sharply from 2020 to 2021. A further price increase in the fourth trading period will lead to additional costs for covering the required emission rights, accompanied by a decrease in the freely allocated quantities. So far, HeidelbergCement has had a sufficient number of emission rights across the Group in the fourth trading period. However, among the individual countries there are already shortages of emission rights, which are covered by intra-Group trading. For further information, refer to the Risk and opportunity report chapter.

Outlook 2022

On 24 February 2022, the Managing Board provided an outlook for the 2022 business year as part of the publication of the preliminary business figures. Then, it was not yet able to estimate the dimension of the Russian attack on Ukraine. At the time of preparing the consolidated financial statements on 23 March 2022, the situation in the energy sector had worsened significantly. The prices for energy have increased drastically within a few days, and the further development cannot be predicted at present. The international sanctions against Russia have intensified the supply bottlenecks for essential energy sources and raw materials.

However, due to the currently very volatile impacts on the energy markets, the Managing Board assumes a negative effect also on the key performance indicators.

The following forecast reflects the Managing Board's assessment without taking into account the economic developments in connection with the Russia-Ukraine war.

Forecast of the key performance indicators
Based on the assumption of continued high energy cost inflation, the Managing Board expects a slight rise in result from current operations before consolidation and exchange rate effects. ROIC is expected to be around 9 %.

HeidelbergCement expects a further slight reduction in specific net CO_2 emissions per tonne of cementitious material as part of the CO_2 roadmap for 2022.

Supplementary forecast of other financial figures

Earnings position
Assuming increasing demand in all business lines as well as a good price development in all markets, the Managing Board expects a significant increase in revenue for the business year 2022, excluding consolidation and exchange rate effects.

Dividend
For the financial year 2021, the Managing Board and the Supervisory Board propose to the Annual General Meeting the distribution of a dividend of € 2.40 per share. HeidelbergCement will also continue to pursue a progressive dividend policy.

Investments

In the 2022 financial year, HeidelbergCement plans to continue its disciplined investment policy based on active portfolio management. The focus is on simplifying the country portfolio and prioritising the strongest market positions. This includes divestments if return expectations cannot be achieved in the medium term and attractive sales options present themselves. Selective acquisitions must meet high return expectations. The main focus of investments is on the maintenance and modernisation of property, plant, and equipment, the reduction of CO_2 emissions and the improvement of environmental protection, digitalisation as well as the construction of new and the conversion of existing production facilities.

The company forecasts net investments in property, plant, and equipment (investments in and divestments of property, plant, and equipment) in the 2022 business year less than € 1.2 billion

Financing

HeidelbergCement has repaid the €360.5 million debt certificate maturing in January 2022 using available liquidity. In addition, the company plans to repay the €750 million bond maturing in August and the financial liabilities expiring in 2022 using free cash flow and available liquidity.

With the €2 billion Euro 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.

The increasing market maturity for sustainability-related forms of financing opens up new capital sources for the company to achieve its sustainability strategy.

HeidelbergCement 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

HeidelbergCement's risk policy is based on the Group strategy, which focuses on sustainably preserving and increasing enterprise value. HeidelbergCement 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.

Risk and opportunity management at HeidelbergCement is closely linked by Group-wide 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 goals 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 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 internal control and risk management system. The Managing Board also has overall responsibility for the scope and organisation of the established systems. The Supervisory Board and its Audit Committee also monitor the effectiveness of the risk management system on a regular basis.

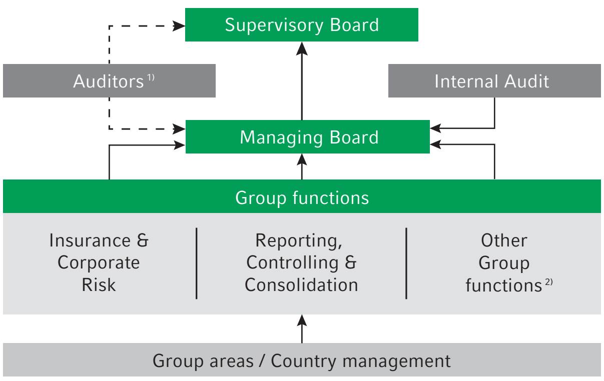
HeidelbergCement has installed transparent regulations to govern competences and responsibilities for risk management that are based on the Group's structure. A code of conduct, guidelines, and principles apply across the Group for the implementation of systematic and effective risk management. The risk management system primarily serves to record and analyse risks. Potential opportunities are taken into account in the planning processes, where appropriate. Our risk management process reflects the decentralised structure of the company and identifies 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 Guideline, 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,
- monitoring of local risk management processes, including risk identification and assessment by local operational management,
- direct information and open communication of identified risks between the Managing Board and country management,
- involvement of the relevant Group departments in identifying and recording strategic and long-term risks,
- standardised and regular reporting at Group and country level,
- promotion of Group-wide risk awareness.

Organisation of risk management at HeidelbergCement



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

In order to optimise risk management and incorporate it into our 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.

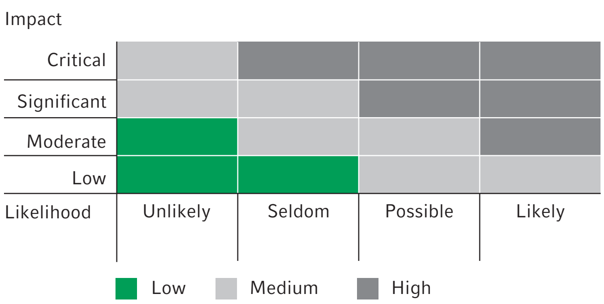
Identification and assessment of risks

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	21 % to 40 %
Possible	41 % to 60 %
Likely	61 % to 100 %

Impact	**Definition of impact on business activity, financial performance and results of operations, 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 (environmental social governance) 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 extent of damage 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.

Aggregating, reporting, monitoring, and controlling risks
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. The regular management meetings provide a platform for the Managing Board and responsible country managers to discuss and determine risk control 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.

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 a company can take without jeopardising its continued existence 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 functions in a central risk map at the quarterly management meetings. The Group's consolidated risk report is presented to the Managing Board once a year. In addition, reporting to the Supervisory Board is effected every six months.

Monitoring and adjustments
The Group Internal Audit department examines and assesses 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 of identifying at an early stage any issues that could threaten the Group's existence. 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), the internal control system within the HeidelbergCement Group 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 within the HeidelbergCement Group consists of process-independent and process-integrated control measures. The process-integrated auditing activities include controls that are incorporated into the process (e.g. 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).

Pursuant to sections 289(4) and 315(4) of the German Commercial Code (HGB), the internal control system within the HeidelbergCement Group 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 within the HeidelbergCement Group consists of process-independent and process-integrated control measures. The process-integrated auditing activities include controls such as 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 an 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 HeidelbergCement, 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 Financial Director and country controlling. The central checking is undertaken by the Group departments Reporting, Controlling and Consolidation, Tax, and Treasury.

HeidelbergCement's 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 programme.

Process-independent checks are carried out by the Audit Committee of the Supervisory Board and by Group Internal Audit. 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 Audit Committee.

Measures for identifying, assessing, and limiting risks
In order to identify and assess risks, individual business transactions at HeidelbergCement 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 and hedge them in cooperation with Group Treasury on the basis of these guidelines.

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 outbreak of coronavirus pandemic at the start of 2020, 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 currency swaps and forward exchange contracts for this purpose. Through our in-house banking activities, the borrowing and investment of liquidity of the subsidiaries lead to currency positions that are hedged by external currency 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. However, a downgrading of our credit rating by the rating agencies could increase the interest margins in the event of a refinancing measure. On the basis of the balanced maturity profile of financial liabilities (see graph in the Group financial management section) and the expected cash inflow from operating activities, there is no significant short- or medium-term need to refinance, meaning that no negative effects on the interest result are to be expected. Therefore, we see here a low risk with a seldom likelihood and a low 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 syndicated credit facility with a volume of €3 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 €6.1 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 an unlikely likelihood and a low to significant impact, depending on the capital market situation.

In connection with credit agreements, we agreed to comply with various financial covenants, which were all met in the reporting period. Within the framework of Group planning, compliance with the covenants is monitored consistently, with notification issued to the creditors on a quarterly basis. The most important financial key figures in this context are the dynamic leverage ratio and the consolidated coverage ratio. In the event of a breach of the covenants, the creditors could, under certain conditions, accelerate corresponding loans – irrespective of the contractually agreed terms. Depending on the volume of the relevant loan and the refinancing possibilities in the financial markets, this could lead to a refinancing risk for the Group.

The syndicated credit facility contains covenants, which were agreed at a level that takes into account the current economic environment and our forecasts. 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.

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, HeidelbergCement 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 2022, 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 9.13.

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

In 2021 the global economy began to recover from the effects of the coronavirus pandemic and, according to the IMF’s January 2022 forecast, has grown by 5.9 %. However, due to the emergence of virus variants and still insufficient vaccination of the world’s population, there is still uncertainty regarding the pace of further economic recovery, according to the IMF. In its January forecast, the IMF anticipates growth of 4.4 % for 2022.

According to the IMF, the long-term growth outlook for individual economies varies. Growth in the developed economies is being driven in particular by the removal of pandemic-related restrictions and the provision of comprehensive government stimulus programmes such as the European Union’s NextGenerationEU recovery plan of more than €800 billion or the American Rescue Plan Act worth over US$1.9 trillion. In developing and emerging countries, on the other hand, growth is expected to decline in the long term due to the slow progress of vaccination campaigns and generally lower levels of government support.

In the course of 2021, inflation increased sharply in both industrialised and some emerging countries. This is based on the renewed increase in demand, combined with supply bottlenecks and a strong increase in raw material prices compared with the previous year. In its January forecast for 2022, with these factors persisting, the IMF anticipates that inflation rates will remain elevated in the short term and expects a decline not until 2023. At the same time, forecasts are currently still subject to the generally uncertain outlook for the further course of the pandemic and the development of the aforementioned inflation drivers.

Apart from risks connected with fluctuations in demand, growing competition can increase the pressure on 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 the risk outlook has not changed. HeidelbergCement 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. HeidelbergCement 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 outbreak of war in Ukraine in February 2022 has led to strong international sanctions against Russia, which will severely affect the Russian economy. As a result of this war, the risk of nationalisations of private companies and a slowdown in economic growth in this region has increased.

Furthermore, geopolitical tensions in Africa, the Middle East, or South Asia, and a deterioration in relations between global trading partners, are among the risks that 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 to the previous year, we assume an increased risk due to the war in Ukraine.

HeidelbergCement 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. In 2021, our business activities recovered from the government measures taken in the previous year to combat the spread of the coronavirus pandemic. At the same time, the risk of further restrictions on our activities due to regulatory requirements remains, particularly in connection with the emergence of virus variants and the low vaccination rate in developing and emerging countries. 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 the result 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.

HeidelbergCement 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
HeidelbergCement is closely monitoring the development of alternative binders and is actively researching this area because of the risk that they will replace conventional cement types. 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 CO_2 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 stringent requirements when renewing existing or applying for new mining concessions for natural raw materials.

In addition, there is the risk that concrete is 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. In our view, this is a tail event risk. 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, 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.

Demographic development
While the population is increasing in developing and emerging countries, it is ageing in industrialised countries. In these countries, this trend can result in a lack of qualified workers, lower productivity, and higher personnel expenses, ultimately leading to an increase in 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.

Demographic development can therefore become an industry- and company-specific risk in countries with mature markets, which has a gradual occurrence. We anticipate a higher risk compared with the previous year.

HeidelbergCement 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.

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 the European countries that are subject to the emissions trading system if there are no comparable costs for CO_2 emissions in the export countries outside Europe. The European Commission has proposed the introduction of a carbon border adjustment system for clinker and cement to ensure equal conditions for domestic production and imports. However, it has yet to be designed and implemented.

Risks from acquisitions, partnerships, and investments
HeidelbergCement expands its capacities 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. HeidelbergCement 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, HeidelbergCement can also cooperate with suitable partners, particularly in politically unstable regions.

Investment projects can span several years from the planning phase to completion. In this process, there are particular risks when it comes to obtaining the necessary permission for extracting raw materials, developing infrastructure – including connecting to energy and road networks – and concerning the requirements for after-use plans for quarrying sites.

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 slightly in comparison with the previous year.

Volatility of energy and raw material prices
For an energy-intensive company such as HeidelbergCement, 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. Geopolitical factors such as the current Ukraine-Russia conflict can have a significant impact on commodity prices.

The Russian attack on Ukraine will have a significant impact on raw material prices. The sanctions against Russia in the financial and energy sectors, as well as Europe’s dependence on Russian energy supplies, have already contributed to a sharp rise in gas and oil prices and are correspondingly increasing the cost risk for HeidelbergCement.

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 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 due to the war in Ukraine and a significant impact.

Availability of raw materials and additives
HeidelbergCement requires a considerable amount 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 ground granulated 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 also create a degree 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.

HeidelbergCement 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 at HeidelbergCement improves management knowledge and decision-making through a harmonised definition of raw material reserves and resources across the Group and a broader consideration of development constraints that influence the availability of raw materials. Following this, a Group policy on reserve and resource management, combined with rigorous local processes, should reduce the risk associated with the availability of raw materials. We also aim 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 and unlikely risk with a low impact.

Production-related risks
The cement industry is a facility-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.

HeidelbergCement's 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. HeidelbergCement 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 HeidelbergCement. 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 HeidelbergCement's 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 more than tripled in the past two years. As a result, prices rose from around €30 initially to around €90 at times within the 2021 financial year, before reaching around €75 at the end of the year. 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 reduction target within the EU ETS from 43 % to 61 % compared to 2005 is 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 CO_2 certificates on the market.

HeidelbergCement 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. The US state of California has had a cap-and-trade programme for emission rights since 2012. Our subsidiary Lehigh Hanson has not taken part in the auctions until now because the state of California allocated sufficient emission rights free of charge to the cement industry. On the basis of current production planning, Lehigh Hanson will continue to monitor the cap-and-trade programme closely to assess possible future requirements. 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. Lehigh Hanson is affected by emissions trading schemes in Alberta, Ontario, and Quebec, and by CO_2 taxes in British Columbia. Lehigh Hanson has drawn up action plans as part of the Group-wide CO_2 roadmap in order to keep the CO_2 output 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.

HeidelbergCement is currently affected by a cap-and-trade pilot project in the Chinese province of Guangdong. In the transition from 2020 to 2021, a new national emissions trading system was introduced in China, which will be extended to cover the entire cement industry, as well as other energy-intensive industries such as steel production, at a later date. The full extent of the impact on our cement plants in this country cannot be conclusively assessed at this point; however, it can be assumed that the Chinese emissions trading system will also cover cement production.

Other Group countries have announced the introduction of far-reaching CO_2 regulations for the coming years. In Indonesia, a CO_2 tax is expected from April 2022. In Turkey, a pilot and test phase for a national ETS will begin in the coming years, with plans to develop it into a mandatory ETS from the second half of the decade, which will also apply to the cement industry. Thailand also continues to introduce CO_2 regulations to reduce national emissions and achieve the Paris climate goals within the coming years.

For HeidelbergCement locations that are subject to CO_2 regulations and easily accessible for imports, rising production costs could 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 is expected to cover the period from 2026 to 2035 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. The gradual introduction of further CBAM measures has not yet been decided, but will be relevant for various markets.

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. To comply with the environmental regulations, HeidelbergCement makes substantial 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. Risks could primarily arise from the unavailability of IT systems and the loss or manipulation of information. To minimise these risks, our Group uses back-up procedures as well as standardised IT infrastructures and processes. Furthermore, the critical IT systems in Europe, Asia, and North America are housed in computer centers operated by HeidelbergCement. In all regions, infrastructure-as-a-service offerings on the cloud are also used for disaster recovery.

A 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 standards for applications and infrastructure for the cement plants were developed, rolled out worldwide, and transferred to central operations. In addition, a new service for backing up computers for the plants' control systems has been made available and is being rolled out globally.

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 quickly identified and dealt with at an early stage of development.

Internet security is an integral part of the Group-wide IT security strategy. We prepare, implement, and revise measures to protect data, systems, and networks. The IT security process is structured and divided into guidelines, standards, and recommendations, which help raise our employees' awareness. Through continuous security checks based on a structured risk assessment, we ensure that there is no increased risk to our systems and networks. Our cybersecurity status is regularly presented to the Managing Board and Supervisory Board, and the action areas for the coming months and years are discussed. In addition, we are establishing a cybersecurity management cycle in which risks in the countries are identified regularly and assessed and reduced in consultation with the Group.

We also take measures to counteract the ageing process of equipment and systems technology. The increasing convergence of information technology and operational technology not only opens up opportunities, but also the risk of security breaches due to the integration of areas that were previously kept separate. We are addressing this challenge through measures carried out jointly by IT and the operational departments. In the case of existing applications, we are particularly concerned with business-critical resources (e.g. ERP and logistics applications, network infrastructure), which are consolidated and updated. We consider the risk of system or application outages as a low risk with moderate impact and unlikely likelihood. In view of the increasing external threat and the growing importance of IT for HeidelbergCement, we anticipate an increased risk in the future. In addition, because our increasingly widespread applications are used intensively, there is a growing risk of customer dissatisfaction should these applications fail.

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.

Hanson asbestos-related claims and environmental damage cases

Some of our Hanson 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 the Hanson Group and to HeidelbergCement. 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. Adequate 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 Group balance sheet are offset by corresponding claims against insurers.

Furthermore, there is a considerable number of environmental and product liability claims against former and existing Hanson participations in the USA, which 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 authorised 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 2021, HeidelbergCement 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 HeidelbergCement took over control, in which currently a number of private claims for damages are 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 anticipate the same positive outcome for Helwan and Suez Cement 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 will now carry out the approval process again. For the period up to 31 December 2022, an interim concession has been granted allowing temporary continued use of the quarry. However, this provisional approval can still be challenged in court. If the interim concession is revoked or no follow-on concession is granted after expiry of the interim concession, the Slite plant, as the largest of two cement plants in Sweden, could only maintain its production temporarily through deliveries of raw materials. Overall, we consider the risk of a plant closure becoming necessary in the medium term to be a medium risk.

The legal risks have risen moderately in comparison with the previous year.

Sustainability and compliance risks

As part of its sustainable corporate governance, HeidelbergCement 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.

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.

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 as well as anti-corruption regulations. 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. 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.

The results of our compliance risk assessments show a rather moderate compliance risk for HeidelbergCement. The confirmed compliance incidents recorded in the reporting year indicate a low financial risk from compliance violations for the Group.

For further information, refer to the 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, HeidelbergCement has therefore considered both the current risk potentials and – for the periods to 2030 and 2050 – the recognised Representative Concentration Pathways (RCP) scenarios 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 HeidelbergCement 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.

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 recent years, this has happened both in Central Europe and in Africa, with visible effects on the result of operations of the affected operating units.

There are significant geographical variations in climate risks. According to our analysis, heat and drought seem to be the most critical current climate risks. Weather conditions that can cause fires to spread quickly and widely pose a particular danger. Significant geographical differences are evident here, with countries in drier climates more exposed to heat- and drought-related climate risks. HeidelbergCement counters these risks, for example, by choosing water-saving production techniques. Other significant risks for us are meteorological developments that can lead to high precipitation and the flooding of rivers. In terms of acute risk, river flooding is a major concern for our business. Looking at the time frames 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 heat poses a threat to our production sites, especially in the southern hemisphere. 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 operational units that have so far had a low drought risk will become high-risk sites between 2030 and 2050. We are monitoring these long-term effects and are stepping up measures to mitigate risks and adapt to climate change. Our sustainability target of drawing up water management plans at locations in water-scarce areas will help us to do this.

Transition risks
We have identified the following risks as the most important for HeidelbergCement during the global structural transition to a low-carbon 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 2021, 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 HeidelbergCement, 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 Commission to establish a compensation mechanism for cement and clinker imports to ensure a level playing field. The Carbon Border Adjustment Mechanism (CBAM) concept is intended to establish a level playing field between EU manufacturers and importers by

2035. Some details, particularly in connection with the EU ETS, are still in the process of being clarified. However, in our estimation, they will also have a significant influence on future price developments.

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.

Another technology risk in the transition to a low-carbon economy is investing in processes that may not succeed in the market. This risk exists particularly with new processes such as carbon capture and storage (CCS), which may not prove as that 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.

HeidelbergCement 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 HeidelbergCement gains experience with all 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-carbon economy. Such a change could lead to increased substitution of concrete by other building materials perceived as having a lower carbon footprint, such as wood or steel.

Another market risk stems from rising commodity costs, which could be caused at least in part by the transition to a low-carbon 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 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 present both risks and opportunities. On the one hand, for example, depreciation of the US dollar against the euro leads to a decrease in revenue and result from current operations; on the other hand, the US dollar-based proportion of purchasing costs after translation into euro also decreases. This primarily affects raw materials, which are traded in US dollar on the global market. We see opportunities for the development of results if the euro exchange rate against the other currencies weakens during the course of 2022.

Strategic opportunities

In the medium and long term, as a result of rising population figures, we particularly see opportunities for an increase in demand for building materials in residential, commercial, and public construction, growing prosperity, and the ongoing trend of urbanisation, especially in the growth markets of emerging countries.

Increasing demand for sustainable products (see also Non-financial statement chapter) will benefit the companies that adapt best to these customer demands. We therefore see special opportunities in innovation and the development of new products and product applications for construction in the future (see also Research and development section).

Rising costs for CO_2 emissions, such as in the European countries, will also lead to further rationalisation measures 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 HeidelbergCement, reduce production and administrative costs, and thus improve overall competitiveness. The development of new, digital technology solutions, including solutions for our customers, also opens up opportunities to further expand our leading role in this area and tap into new fields of value creation.

Operational opportunities

Risks from the strong increase in prices for energy, raw materials, and additives are offset by opportunities that can turn the identified factors of influence to our advantage. Overall, the development of the energy prices could be more advantageous than planned if the supply of coal, shale gas, and oil exceeds demand. HeidelbergCement 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 43 % by 2030, which will reduce 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 business strategy. The opportunity exists for all projects to produce higher than anticipated results and margin improvements that exceed previous expectations.

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 risen slightly.

Overall, the Managing Board is not aware of any risks that might jeopardize 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 balance sheet date and the preparation of the 2021 consolidated financial statements. The company has a solid financial base, and its liquidity situation is comfortable.

HeidelbergCement is aware that the risks and opportunities for its business activity as presented in this chapter are based on current assessments that may prove incorrect in the future. The measures described above play a significant role in allowing HeidelbergCement to make use of the opportunities to further develop the Group without losing sight of the risks.

With its integrated product portfolio, its positions in growth markets, and its cost structure, HeidelbergCement considers itself well positioned to overcome any risks that may materialise and benefit from opportunities which will arise.

3 Corporate Governance

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

Corporate Governance statement

The corporate governance statement 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 (Aktiengesetz, 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 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 31 January 2022 and 11 February 2022 respectively, the Supervisory Board and Managing Board submitted the following declaration of compliance pursuant to section 161(1) of the AktG:

Since issuing the last declaration of compliance in February 2021, 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) and will continue to comply with them in the future, with the following exceptions:

– The recommendation in C.4 is 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 exceeds this number. 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 is not fully 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.

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 at **www.heidelbergcement.com/en/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 following 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 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 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 profit distribution, approval of the actions of the members of the Supervisory Board and Managing Board, the conclusion of inter-company agreements, and changes to the Articles of Association, and elects the shareholder representatives to the Supervisory Board as well as 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. A company proxy bound by instructions is 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 held its Annual General Meeting virtually in May 2021. 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.

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. HeidelbergCement's Code of Business Conduct is an important element of our corporate governance and is published on the website **www.heidelbergcement.com/en/corporate-governance**. The Code of Business Conduct is binding on the Managing Board and all employees worldwide. It forms part of HeidelbergCement's 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 business partners,
- strict compliance with all applicable laws,
- the consideration of sustainability and environmental concerns,
- consistent avoidance of conflicts of interest,
- 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,
- fair, non-discriminatory employment conditions and fair dialogue with the employee representatives,
- the provision of healthy and safe workplaces, and
- considerate handling of natural resources.

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 of Managing Board and Supervisory Board, and composition and functioning of the committees of the Supervisory Board

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 Managing Board Rules of Procedure 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, 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 Managing Board Rules of Procedure at www.heidelbergcement.com/en/corporate-governance.

Composition of the Managing Board

With effect from 1 September 2021, the Supervisory Board expanded the Managing Board and created the new Managing Board responsibilities of Chief Digital Officer and Chief Sustainability Officer. Mr Dennis Lentz and Dr Nicola Kimm were appointed to these positions. This means that there are now nine members on the Managing Board of HeidelbergCement AG: the Chairman of the Managing Board, the Chief Financial Officer, the two new 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	End of current appointment
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	30 June 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 2023

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 Supervisory Board and Managing Board chapter. Some personal details can be found in the Managing Board chapter.

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 Managing Board Rules of Procedure.

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 goals, 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
At present, the Supervisory Board of HeidelbergCement AG consists of twelve 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, 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, no. 10 of the HGB can be found in the Supervisory Board and Managing Board chapter.

Composition of the Supervisory Board

Shareholder representatives	Employee representatives
Fritz-Jürgen Heckmann (Chairman)	Heinz Schmitt (Deputy Chairman)
Ludwig Merckle	Barbara Breuninger
Tobias Merckle	Birgit Jochens
Luka Mucic	Dr Ines Ploss
Margret Suckale	Peter Riedel
Prof. Dr Marion Weissenberger-Eibl	Werner Schraeder

The Supervisory Board advises and supervises the Managing Board in the management of the Group. The Managing Board involves the Supervisory Board in all decisions of fundamental importance to the Group. The Supervisory Board has stipulated that certain transactions and measures of particular relevance to the company are subject to its consent. 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, 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.

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 of the HeidelbergCement Group. 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 2021.

Supervisory Board committees
In accordance with the Articles of Association, the Supervisory Board has set up a total of four 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, Ms Birgit Jochens, Mr Luka Mucic, Dr Ines Ploss, 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 programme, 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-yearly report and quarterly statements with the Managing Board before they are published. The Audit Committee monitors the appropriateness and effectiveness of the internal process for related party transactions.

The Chairman of the Audit Committee has specialist knowledge and experience in the application of accounting principles and internal control processes as well as in auditing matters. In addition to the Chairman, the Audit Committee includes at least one independent member with expertise in either accounting or auditing. The Audit Committee comprises Mr Luka Mucic (Chairman), Mr Ludwig Merckle (Deputy Chairman), Ms Barbara Breuninger, Messrs Fritz-Jürgen Heckmann, Peter Riedel, Heinz Schmitt, and Werner Schraeder, as well as Ms Margret Suckale.

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 Prof. 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 Prof. Dr Marion Weissenberger-Eibl (Chairwoman), Mr Fritz-Jürgen Heckmann, Mr Heinz Schmitt, and Dr Ines Ploss.

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 Code. The last such self-assessment took place in November 2021. The self-assessment was performed by means of a detailed questionnaire, which the members of the Supervisory Board completed anonymously, and a subsequent discussion within the Supervisory Board. This self-assessment focused on the substantive structure of cooperation within the Supervisory Board, the quality of cooperation between the Supervisory Board and the Managing Board with regard to the strategic direction of the company, and individual aspects of the workflow within the Supervisory Board. No significant need for change was identified.

Target figures for the gender balance on the Managing Board and in the two management 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 management levels below the Managing Board.

On 18 March 2020, after extensive consideration, the Supervisory Board resolved to set the target figure for the proportion of women on the Managing Board of HeidelbergCement AG to 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 the appointment of Dr Nicola Kimm as a member of the Managing Board as of 1 September 2021, the Supervisory Board's target was achieved early, and the composition of the Managing Board of HeidelbergCement AG thus complies with the above-mentioned legal requirements. The Supervisory Board will further intensify its efforts to identify suitable women who fulfil the requirements for filling a position on the Managing Board of our company. 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. The Managing Board aimed to achieve a target figure of 15 % by 30 June 2022 for the proportion of women in leadership positions in the first two levels below the Managing Board at HeidelbergCement AG. As at 31 December 2021, the proportion of women was 17 % in the first level and 19 % in the second. The company's efforts to promote the appointment of women to management positions are having an effect. In the first half of 2022, the Managing Board will adopt a correspondingly adjusted target for the proportion of women among managers in Germany at the first two leadership levels below the Managing Board. For further information, refer to the Employees chapter.

By law, at least 30 % of the members of the Supervisory Board of HeidelbergCement AG must be men and at least 30 % women. The current composition of the Supervisory Board of HeidelbergCement AG fulfils these requirements.

Diversity concept for the Managing Board and long-term successor planning

Diversity concept for the composition of the Managing Board

The requirements for filling a Managing Board position include, among others, many years of international experience in a leading position in the operational area at plant or country level or in the finance sector at HeidelbergCement or in a comparable position at another company. With the targeted use of programmes for the advancement of future executives, HeidelbergCement is working at creating a pool of qualified candidates. Subject to the achievement of the above-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 international balanced and complementary composition of the Managing Board. This diversity regarding the origin of the members reflects the international and regional positioning of HeidelbergCement. 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. In addition to the requirements of the AktG and the 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.

Competence profile, diversity concept, and targets for the composition of the Supervisory Board

Taking into account the recommendations stated in C.1 of the Code and in section 289f(2)(6) of the HGB (diversity concept), the Supervisory Board agreed specific objectives regarding its composition and a competence profile 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.

Competence profile

The competence profile 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 competence areas:

- competence in industry, leadership, and committees (in particular, familiarity with the building materials industry or closely related industries, leadership activities within companies, membership and leadership of boards/committees),

– personnel competence (in particular, putting together managing bodies, processes for identifying candidates for suitable positions, contractual arrangements with managers),
– regulatory competence (in particular, in the areas of compliance structures and concepts with regard to the legal frameworks and corporate governance), and
– accounting competence (in particular, financial reporting and auditing).

Diversity concept
On the Supervisory Board, the competences listed above should be represented as broadly and in as balanced a way as possible. In addition, the in-depth competences in individual fields held by the individual members of the Supervisory Board should ideally be complemented by the members' personal, national, and/or international backgrounds. It is also important to consider the combination of competences from a diversity perspective, as well as the availability of the Supervisory Board members. The composition of the Supervisory Board shall be an appropriate reflection of the national and international alignment of HeidelbergCement as a leading building materials manufacturer. At least 30 % of the Supervisory Board's members are women and at least 30 % men.

Independence
It is the goal of the Supervisory Board that it includes at least four shareholder representatives who are independent within the meaning of recommendation C.6 of the 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 constitution corresponds to its specified goals and the competence profile. 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 is an appropriate reflection of the national and international alignment of HeidelbergCement as a leading building materials manufacturer. At present, there are five women on the Supervisory Board, of whom two represent the shareholders and three represent the employees. The proportion of women on the Supervisory Board is thus around 42 %. 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 Supervisory Board's assessment, all its current shareholder representatives are independent in the sense of the 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 Messrs Fritz-Jürgen Heckmann, Ludwig Merckle, and Tobias Merckle have each been members of the Supervisory Board for more than twelve years. In the opinion of the Supervisory Board, this length of membership does not lead to a concern of a conflict of interest for any of the three members, as their work in the past years has shown that this length of membership does not give cause for this. The standard retirement age and the regular limit of length of membership of the Supervisory Board have been taken into account.

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, 26.73 % 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.

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 and reports on the remuneration granted and owed to the current and former members of the Managing Board and the Supervisory Board in the 2021 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 16 December 2019.

The remuneration report, as part of the combined management report of HeidelbergCement Group and HeidelbergCement AG, was also audited with reasonable assurance by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft beyond the requirements of section 162(3) of the AktG. Please refer to the corresponding auditors' report.

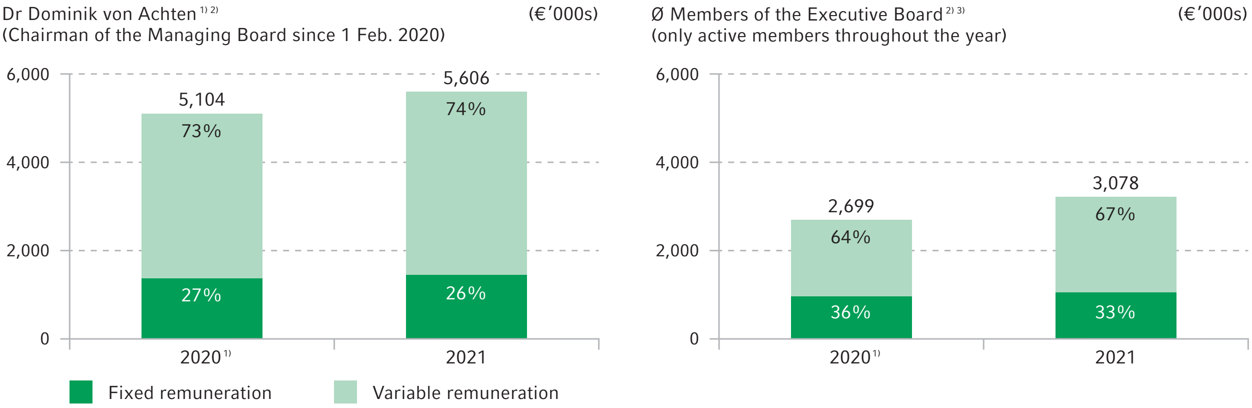
Review of the 2021 financial year

Business development and target achievement in the 2021 financial year
The positive business development of HeidelbergCement in 2021 is also reflected in the target achievement of the variable elements of the remuneration of the Managing Board. Besides the increase in the Group share of profit, the reduction in CO_2 emissions, which formed part of the variable remuneration basis for the first time in the 2021 financial 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 "Beyond 2020" strategy.

For the management component of the long-term bonus 2019-2021/2022, a further rise in EBIT and ROIC led to a target achievement of 200 %. However, the total shareholder return (TSR) of the HeidelbergCement share after the end of the performance period from 2018 to 2021 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 2018-2020/2021.

Target achievement 2021

Granted and owed remuneration in the 2021 financial year



1) Due to assuming the chair of the Managing Board during the year, Dr von Achten received remuneration for the chair of the Managing Board for eleven months and remuneration for a member of the Managing Board for one month in 2020.
2) In the months April to June 2020, the Managing Board voluntarily waived 20 % of their fixed salary to deal with the negative impacts of the coronavirus pandemic.
3) Ernest Jelito and Chris Ward received a payment from the long-term bonus for the first time for the year 2021.

Changes in the composition of the Managing Board

On 1 September 2021, two functional Managing Board responsibilities were added with a focus on the transformational topics of sustainability and digitalisation. To this end, Dr Nicola Kimm and Dennis Lentz were appointed to the Managing Board. Furthermore, René Aldach was newly appointed and succeeded the former Chief Financial Officer Dr Lorenz Näger, who entered into early retirement on 31 August 2021.

Approval of the remuneration system of the Managing Board

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 for approval in 2021. To emphasise sustainable management as an essential component of the "Beyond 2020" Group strategy, the Supervisory Board has adjusted the previous remuneration system and included a CO_2 component as an additional performance criterion in the annual bonus. At the same time, a strong focus will continue to be placed on the achievement of the financial targets, thereby striking a balance between economic parameters and sustainability targets.

The adjusted remuneration system was presented at the Annual General Meeting in 2021 and approved 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 under the following link: https://www.heidelbergcement.com/en/corporate-governance.

Approval of the remuneration system of the Supervisory Board

In accordance with the ARUG II, a resolution on the remuneration system of the Supervisory Board was also adopted at the Annual General Meeting in 2021. The remuneration system of the Supervisory Board was approved with an acceptance rate of 99.89 % and took effect retroactively as of 1 January 2021. It was only slightly adjusted in comparison with the previous remuneration system. In order to reflect the increased use of electronic means of communication in conducting the Supervisory Board meetings in the remuneration, the requirement of participating in person for the payment of the attendance fee no longer applies. In future, members of the Supervisory Board will receive an attendance fee for each meeting of the Supervisory Board and its committees they participate in, regardless of the form in which the meeting is held. For multiple meetings that take place on the same day or on subsequent days, the attendance fee continues to be paid only once. Furthermore, with the removal of the corresponding recommendation of the GCGC, the company's obligation contained in the Articles of Association to provide for a deductible for the members of the Supervisory Board in the case of a D&O liability insurance concluded by the company no longer applies. In all other respects, the remuneration system of the Supervisory Board remained unchanged.

Changes in the regulatory framework for remuneration reporting

As a result of the ARUG II entering into force, the remuneration report for the 2021 financial year must be prepared on the basis of the new requirements of section 162 of the AktG.

In accordance with the legal requirements, the remuneration report for 2021 will be submitted to the 2022 Annual General Meeting as part of a consultative vote for approval pursuant to section 120a(4) of the AktG.

Remuneration of the Managing Board in the 2021 financial year

Principles of remuneration of the Managing Board

The remuneration system of the Managing Board is aligned with the “Beyond 2020” 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 HeidelbergCement. Both financial and non-financial performance criteria are used to represent the company’s success as a whole. The consideration of ESG objectives in the variable remuneration underlines the desire for excellent economic performance as well as environmentally and socially responsible conduct.

The remuneration of the Managing Board at HeidelbergCement 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 HeidelbergCement.

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 “Beyond 2020” Group strategy
Sustainability as essential 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 remuneration of the Managing Board

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.

The current remuneration system was approved by the Annual General Meeting in 2021 following a resolution by the Supervisory Board. 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 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 HeidelbergCement AG.

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 HeidelbergCement AG. For the horizontal comparison, the selection of companies is based on the size and international activity of HeidelbergCement, 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 compensation (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 2017 to 2021. 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 remuneration and earnings development section.

Development of the average target direct remuneration[1] of the Managing Board and total workforce of HeidelbergCement AG

€'000s	2017	Change 2018/2017	2018	Change 2019/2018	2019	Change 2020/2019	2020	Change 2021/2020	2021
Managing Board [2]	2,705.5	12.2 %	3,036.0	-5.6 %	2,866.8	0.1 %	2,868.7	-9.1 %	2,607.8
Top and senior management [3]	197.6	5.2 %	207.7	4.6 %	217.2	5.9 %	230.0	2.7 %	236.3
Total workforce of HeidelbergCement AG [4]	60.2	1.9 %	61.4	2.0 %	62.6	1.2 %	63.4	1.4 %	64.3

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 increase of 12.2 % in the average target direct remuneration of the Managing Board from 2017 to 2018 is mainly due to contractually agreed salary adjustments for several members of the Managing Board. The decrease of 5.6 % 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.
3) Top and senior management of HeidelbergCement AG, excluding Managing Board.
4) Including top and senior management, excluding Managing Board.

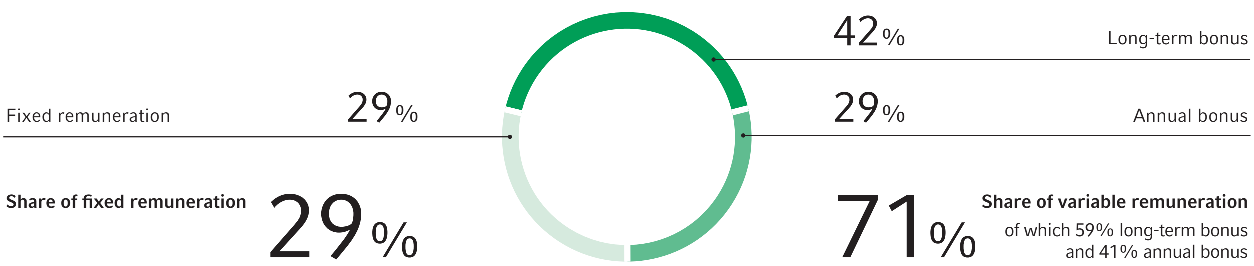
In the 2021 financial year, the ratio of the average remuneration of the Managing Board (including the Chairman of the Managing Board) to the average remuneration of top and senior management was 1:11 (previous year: 1:12), and the ratio to the total workforce of HeidelbergCement AG was 1:41 (previous year: 1:45).

Remuneration structure

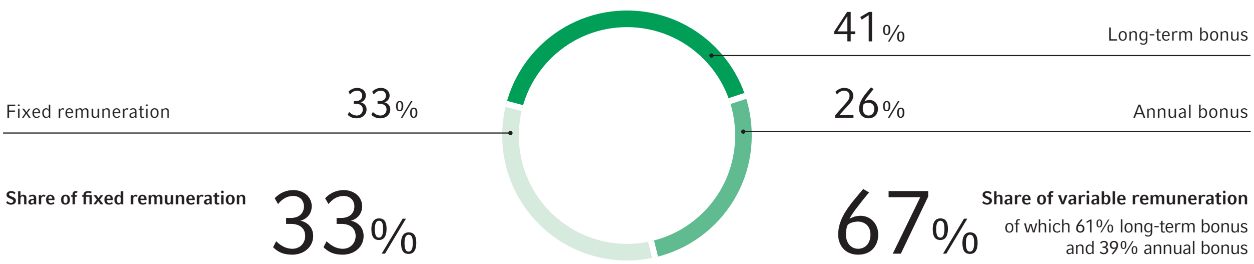
Pay for performance and the focus on the sustainable and long-term development of the company are central principles of the remuneration of the Managing Board of HeidelbergCement. With these principles in mind, 71 % of the target direct remuneration of the Chairman of the Managing Board and around 67 % 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 (ratio of 59 % to 41 % for the Chairman of the Managing Board and 61 % to 39 % for the members of the Managing Board).

Remuneration components of the Chairman of the Managing Board



Remuneration components of the members 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 and activities of the individual member of the Managing Board.

The target remuneration of the members of the Managing Board that were active in the 2021 financial year is as follows:

Target remuneration	Dr Dominik von Achten Chairman of the Managing Board [1] (since 1 February 2020)		René Aldach Chief Financial Officer (since 1 September 2021)	
€'000s	2020	2021	2020	2021
Fixed annual salary	1,348	**1,450**	–	**200**
Fringe benefits	11	**11**	–	**5**
Contribution to private pension (cash allowance)	–	**–**	–	**–**
One-year variable compensation	1,380	**1,450**	–	**160**
Annual bonus 2020	1,380	**–**	–	**–**
Annual bonus 2021	–	**1,450**	–	**160**
Multi-year variable compensation	1,978	**2,175**	–	**604**
Long-term bonus plan 2020-2022/2023	1,978	**–**	–	**–**
Management component tranche 2020-2022	988	**–**	–	**–**
Capital market component tranche 2020-2023	990	**–**	–	**–**
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**
Others	–	**–**	–	**–**
Service costs	676	**427**	–	**83**
Total compensation	5,393	**5,513**	–	**1,052**

1) Until 31 January 2020 member of the Managing Board.

Target remuneration	Kevin Gluskie Member of the Managing Board		Hakan Gurdal Member of the Managing Board	
€'000s	2020	2021	2020	2021
Fixed annual salary	803	**913**	665	**764**
Fringe benefits	452	**463**	71	**84**
Contribution to private pension (cash allowance)	–	**–**	–	**–**
One-year variable compensation	676	**730**	560	**611**
Annual bonus 2020	676	**–**	560	**–**
Annual bonus 2021	–	**730**	–	**611**
Multi-year variable compensation	1,096	**1,151**	876	**960**
Long-term bonus plan 2020-2022/2023	1,096	**–**	876	**–**
Management component tranche 2020-2022	548	**–**	438	**–**
Capital market component tranche 2020-2023	548	**–**	438	**–**
Long-term bonus plan 2021-2023/2024	–	**1,151**	–	**960**
Management component tranche 2021-2023	–	**575**	–	**480**
Capital market component tranche 2021-2024	–	**576**	–	**480**
Others	–	**–**	–	**–**
Service costs	840	**843**	648	**664**
Total compensation	3,867	**4,099**	2,820	**3,084**

Target remuneration	Ernest Jelito Member of the Managing Board		Dr Nicola Kimm Member of the Managing Board (since 1 September 2021)	
€'000s	2020	2021	2020	2021
Fixed annual salary	665	**700**	–	**200**
Fringe benefits	24	**27**	–	**72**
Contribution to private pension (cash allowance)	–	**–**	–	**–**
One-year variable compensation	560	**560**	–	**160**
Annual bonus 2020	560	**–**	–	**–**
Annual bonus 2021	–	**560**	–	**160**
Multi-year variable compensation	876	**875**	–	**604**
Long-term bonus plan 2020-2022/2023	876	**–**	–	**–**
Management component tranche 2020-2022	438	**–**	–	**–**
Capital market component tranche 2020-2023	438	**–**	–	**–**
Long-term bonus plan 2021-2023/2024	–	**875**	–	**604**
Management component tranche 2021-2023	–	**438**	–	**292**
Capital market component tranche 2021-2024	–	**438**	–	**313**
Others	–	**–**	–	**–**
Service costs	449	**460**	–	**83**
Total compensation	2,574	**2,622**	–	**1,119**

Target remuneration	Dennis Lentz Member of the Managing Board (since 1 September 2021)		Jon Morrish Member of the Managing Board	
€'000s	2020	2021	2020	2021
Fixed annual salary	–	**200**	817	**899**
Fringe benefits	–	**25**	174	**79**
Contribution to private pension (cash allowance)	–	**–**	–	**–**
One-year variable compensation	–	**160**	688	**720**
Annual bonus 2020	–	**–**	688	**–**
Annual bonus 2021	–	**160**	–	**720**
Multi-year variable compensation	–	**604**	1,076	**1,127**
Long-term bonus plan 2020-2022/2023	–	**–**	1,076	**–**
Management component tranche 2020-2022	–	**–**	538	**–**
Capital market component tranche 2020-2023	–	**–**	538	**–**
Long-term bonus plan 2021-2023/2024	–	**604**	–	**1,127**
Management component tranche 2021-2023	–	**292**	–	**564**
Capital market component tranche 2021-2024	–	**313**	–	**564**
Others	–	**–**	–	**–**
Service costs	–	**83**	612	**600**
Total compensation	–	**1,072**	3,367	**3,425**

Target remuneration	Dr Lorenz Näger Deputy Chairman of the Managing Board 1) (1 February 2020 until 31 August 2021)		Chris Ward Member of the Managing Board	
€'000s	2020	2021	2020	2021
Fixed annual salary	1,024	**733**	699	**710**
Fringe benefits	36	**23**	59	**58**
Contribution to private pension (cash allowance)	–	**–**	371	**356**
One-year variable compensation	863	**587**	589	**568**
Annual bonus 2020	863	**–**	589	**–**
Annual bonus 2021	–	**587**	–	**568**
Multi-year variable compensation	1,256	**917**	936	**888**
Long-term bonus plan 2020-2022/2023	1,256	**–**	936	**–**
Management component tranche 2020-2022	627	**–**	468	**–**
Capital market component tranche 2020-2023	628	**–**	468	**–**
Long-term bonus plan 2021-2023/2024	–	**917**	–	**888**
Management component tranche 2021-2023	–	**458**	–	**444**
Capital market component tranche 2021-2024	–	**458**	–	**444**
Others 2)	55	**57**	–	**–**
Service costs	608	**963**	–	**–**
Total compensation	3,842	**3,280**	2,654	**2,580**

1) Until 31 January 2020 member of the Managing Board.

2) In the case of Dr Lorenz Näger, the 2020 value includes a crediting of mandate remuneration of the subsidiary Indocement against the annual bonus in the amount of €55 thousand. In 2021, the mandate remuneration of the subsidiary Indocement will be credited in the amount of €57 thousand.

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 % respectively 25 % for old contracts. 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 €8,000,000 based on individual contractual provisions. This corresponds to 158 % of the target direct remuneration.

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 final compliance report on the maximum remuneration for the 2021 financial year can therefore only be made after the tranche of the long-term bonus promised in 2021 has been paid out. Compliance with the maximum remuneration will be reported in the remuneration report for the 2024 financial year after the end of the performance period of the capital market component of the 2021 tranche. Should the payout from the long-term bonus result in exceeding the maximum remuneration, the payment amount will be reduced accordingly to ensure compliance with the maximum remuneration.

Application of the remuneration system in the 2021 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 2021

Fixed remuneration components					
Fixed annual salary	2021	2022	2023	2024	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	2021	2022	2023	2024	**Arrangement:** Especially company cars, driving services, mobile phone and communication resources, flight costs, tax consultancy costs, insurance benefits, individually agreed membership fees and secondment-related non-cash benefits
Variable remuneration components					
Annual bonus	2021	2022	2023	2024	**Designed as:** Target bonus **Performance criteria:** 2/3 Group share of profit and CO_2 component, 1/3 individual targets **Target achievement:** 0 - 200 % target achievement **Limit:** 200 % of target value **Share of target direct remuneration:** Chairman of the Managing Board 29 %, members of the Managing Board 26 %
Long-term bonus	2021 2021	2022 2022	2023 2023	2024 2024	**Designed as:** 50 % performance cash plan (management component), 50 % performance share plan (capital market component) **Performance period:** Three-year management component, four-year capital market component **Performance criteria:** Management component: 50 % EBIT, 50 % ROIC, capital market component: 50 % relative TSR vs. DAX, 50 % relative TSR vs. MSCI World Construction Materials Index **Target achievement:** 0 - 200 % target achievement **Limit:** 200 % of target value **Share of target direct remuneration:** Chairman of the Managing Board 42 %, members of the Managing Board 41 %

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 remuneration system for the Managing Board is the mandatory share ownership, which obliges the members of the Managing Board to hold shares of Heidelberg-Cement AG for the duration 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.

Fringe benefits

In the 2021 financial year, the taxable fringe benefits of the members of the Managing Board consisted of the provision of company cars and driving services, mobile phone and communication resources, costs for home flights, 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 a 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 2021 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 "Beyond 2020" 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

Performance criterion/ aspect	Business Excellence	Portfolio management	Employees and organisation	Sustainability	Digital transformation	Capital allocation
Annual bonus						
Group share of profit	■	□	□	□	□	■
CO_2 component	□	■	□	■	□	■
Individual targets	■	■	■	■	■	■
Long-term bonus						■
EBIT	■	□	□	□	□	■
ROIC	■	□	□	□	□	■
Relative total shareholder return (TSR)	■	□	□	□	□	■

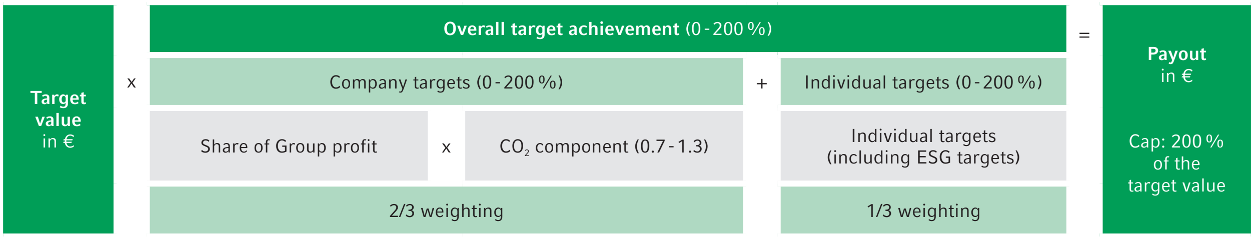
For the variable remuneration, the Supervisory Board generally has the option of discretionary adjustment of the annual and the long-term bonus in order to account for exceptional circumstances (administrative discretion). For new appointments and reappointments as of 2019, this discretionary range has 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. 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 2021 financial year.

Annual bonus

Fundamentals of the annual bonus
The annual bonus is a variable remuneration element that provides incentives to implement the operational objectives 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 by company targets (Group share of profit and CO_2 component) and one third by individual targets. The achievement of the company targets results from the multiplication of the target achievement of the performance criterion Group share of profit with 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.

Group share of profit
The Group share of profit, adjusted for special items, is the basis for the first performance criterion. Special items (such as restructuring expenses or gains/losses from unplanned disposal of assets) are only taken into account above a threshold of €20 million.

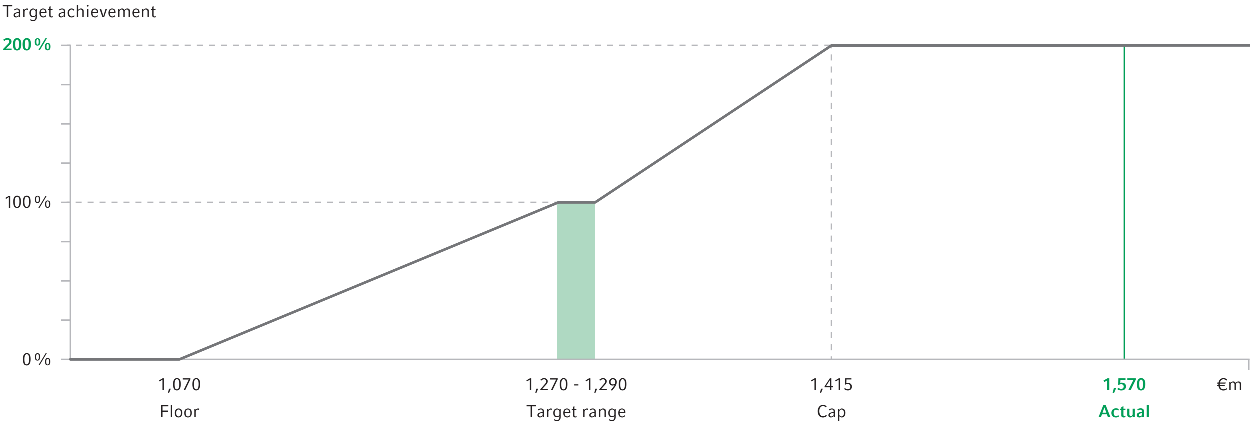
The Group share of profit reflects HeidelbergCement's profitability as a basic parameter. The increase in the value of the Group through sustainable and result-oriented growth guarantees a lasting entrepreneurial capacity to act. In line with its financial strategy, HeidelbergCement strives to offer an attractive investment opportunity for its shareholders and to pursue a progressive dividend policy. The Group share of profit provides the basis for dividend payments and is of particular interest to shareholders. As part of the annual bonus, this key figure therefore provides incentives for profitable management.

For the target achievement calculation of the performance criterion Group share of profit, 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 2021 financial year, the Supervisory Board set a target corridor of €1,270 million to €1,290 million. The target achievement rate is 100 % if the actual value of the Group share of profit is within the target corridor. The lower limit was set at €1,070 million and the upper limit at €1,415 million.

In the financial year 2021, the actual value of the Group share of profit, including adjustments for special effects, amounted to €1,570 million. This results in a target achievement of 200 %. The adjustments mainly include the adjusted profit from the sale of the business of the West region in the USA (€465.8 million), expenses from changes in corporate tax rates as well as provisions for environmental damage from discontinued operations (€84.0 million) and other effects (income), in particular changes in the scope of consolidation (€90.6 million). These adjustments do not take into account the respective tax effects.

The following graph presents the target achievement of the performance criterion Group share of profit:

Group share of profit



CO_2 component

The topic of sustainability is a central component of HeidelbergCement's company strategy. The CO_2 component in the annual bonus takes up these strategic priorities and provides a significant incentive to achieve the defined CO_2 reduction targets. At the same time, the CO_2 component is intended to promote the long-term and sustainable development of HeidelbergCement by supporting the alignment of the business model to a resource-efficient production. It is one of the key performance indicators of HeidelbergCement.

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 at the beginning of the respective financial year, which is aligned to the CO_2 roadmap of HeidelbergCement AG and the current CO_2 performance. 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 comparison with the previous year, specific CO_2 emissions were further reduced in the 2021 financial year. The reduction target set for the remuneration-relevant CO_2 emissions by the Supervisory Board was even exceeded, leading to a CO_2 multiplier of 1,18.

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 2021 depending on their respective area of responsibility. These targets were based on the objectives of the “Beyond 2020” strategy: business excellence, portfolio management, sustainability, people and organisation as well as digital transformation. Regarding business excellence, revenue growth targets as well as targets for optimising processes and structures in sales, production, and administration were implemented. In terms of portfolio management, the focus was put on simplifying the country portfolio and prioritising the strongest market positions. The agreed targets provided incentives to accelerate divestments if the expected margins could not be achieved in the medium term and only to pursue acquisitions if the expected margins are high. As for the digital transformation, targets were set to expand the digital customer base (HConnect) as well as to enable efficiency gains and cost reductions in production and administration (HProduce and HService). In order to reach the company's ambitious sustainability targets, targets for the increased use of alternative fuels and for research into carbon capture and storage initiatives were agreed. Furthermore, the members of the Managing Board were given targets to increase occupational safety.

For 2021, the achievement rate of individual targets for Managing Board members was between 135 % and 173 %. In many areas, the Managing Board not only achieved the targets, but even exceeded them. With regard to digital transformation, the expansion of digital interfaces to the customers was advanced successfully. Moreover, planning and maintenance software solutions developed as part of HProduce were rolled out in additional plants to reduce production and administrative costs. In the area of sustainability, the use of alternative fuels was increased, among other things, and other sustainable products (e.g. EcoCrete) were established. The optimisation of the country portfolio was accelerated through the disposal of assets. In terms of business excellence, margins were raised in many markets and market shares were maintained or even increased.

The following table provides an overview of the targets and their achievement per Managing Board member for the year 2021.

Individual target achievement of Managing Board members

In %	Individual target	2021
Dr Dominik von Achten	– Strategic plans for key countries – Focusing portfolio according to Beyond 2020 – Occupational health and safety across the Group, development of green product line – Strengthening digital customer base – Support of Managing Board restructuring	**173 %**
René Aldach [1)]	– Onboarding and development of a 100-day plan on the focus topics within the Group strategy – Optimisation of processes – Focusing portfolio according to Beyond 2020 – Data management – Reduction of tax uncertainties – Free cash flow	**156 %**
Kevin Gluskie	– Growth and operational targets for Asia-Pacific (APAC) – Focusing portfolio in APAC according to Beyond 2020 – Occupational health and safety and use of alternative fuels in APAC – Implementation of digital initiatives in APAC	**140 %**
Hakan Gurdal	– Growth targets for Africa-Eastern Mediterranean Basin (AEM) and HC Trading – Focus portfolio in AEM according to Beyond 2020 – Occupational health and safety and use of alternative fuels in AEM – Implementation of digital initiatives in AEM	**156 %**
Ernest Jelito	– Growth and R&D targets for Northern and Eastern Europe-Central Asia (NEECA) – Focusing portfolio in NEECA according to Beyond 2020 – Occupational health and safety and sustainability technologies in NEECA – Strengthening digital customer base and process optimisation in NEECA	**160 %**
Dr Nicola Kimm [1)]	– Onboarding and development as well as initial implementation of a 100-day plan focusing on the strategic orientation and organisational structure of the newly created department	**150 %**
Dennis Lentz [1)]	– Onboarding and development of a 100-day plan for the integration of Command Alkon into HeidelbergCement's digitalisation strategy – Digital resource management – Process optimisation through digital transformation – Strengthening the digital customer base – IT security – Further development of IT organisation	**169 %**
Jon Morrish	– Growth targets for Western and Southern Europe (WSE) and aggregates – Focusing portfolio in WSE according to Beyond 2020 – Occupational health and safety and sustainability targets in WSE – Strengthening digital customer base and process optimisation in WSE	**168 %**
Dr Lorenz Näger [2)]	– Optimisation of processes – Focusing portfolio according to Beyond 2020 – Data management – Reduction of tax uncertainties – Free cash flow	**153 %**
Chris Ward	– Growth and operational targets for North America (NAM) – Focusing portfolio in NAM according to Beyond 2020 – Occupational health and safety and sustainability targets NAM – Strengthening digital customer base and process optimisation NAM	**135 %**

1) Targets valid for the period from 1 September 2021 to 31 December 2021; weighting of the "onboarding" target within the individual targets: 50 % for René Aldach, 100 % for Dr Nicola Kimm, 20 % for Dennis Lentz.

2) Targets valid for the period from 1 January 2021 to 31 August 2021.

Annual bonus 2021 – 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 2021:

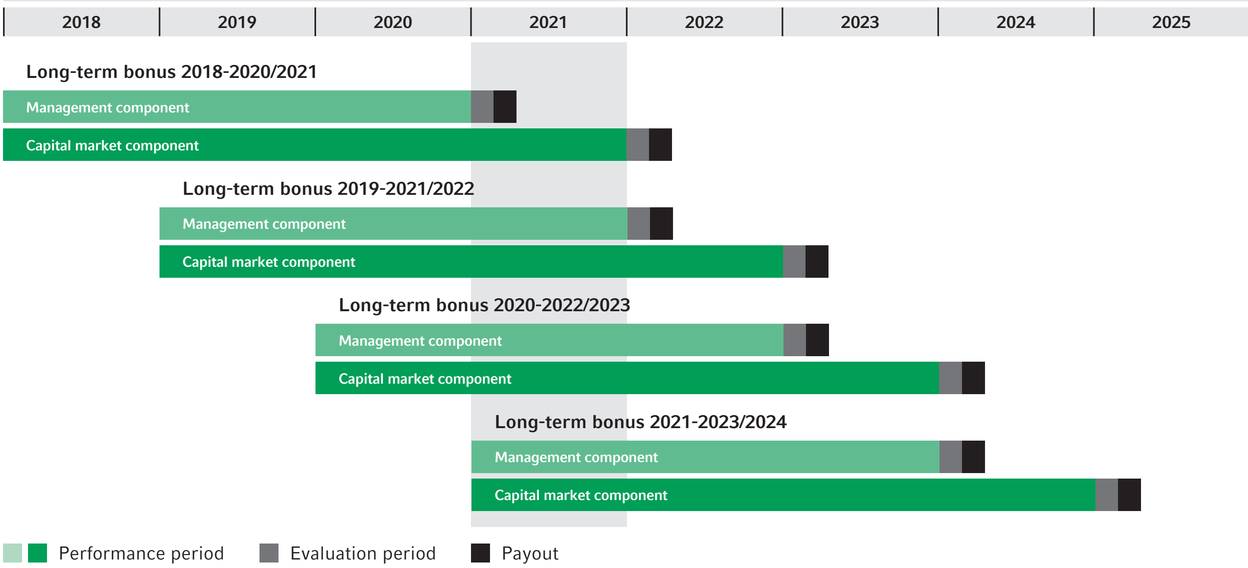
Overall target achievement Annual bonus 2021		Target achievement					
		Company targets (2/3)			Individual targets (1/3)		
€'000s	Target value	Group share of profits	CO_2 multiplier	Total		Total	Payout
Dr Dominik von Achten	1,450	200 %	1.18	200 %	173 %	191 %	2,770
René Aldach	160				156 %	185 %	297
Kevin Gluskie	730				140 %	180 %	1,314
Hakan Gurdal	611				156 %	185 %	1,133
Ernest Jelito	560				160 %	187 %	1,045
Dr Nicola Kimm	160				150 %	183 %	293
Dennis Lentz	160				169 %	190 %	303
Jon Morrish	720				168 %	189 %	1,362
Dr Lorenz Näger	587				153 %	184 %	1,081
Chris Ward	568				135 %	178 %	1,013
Total	5,706						10,612

In case of a start or termination of the Managing Board membership during the year, the target achievement is applied to the target amount reduced pro rata temporis in order to calculate the payout amount. The annual bonus 2021 is paid after the Annual General Meeting in 2022.

Long-term bonus

The long-term bonus is a variable remuneration element based on the long term 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 other members of the Managing Board. At the beginning of the 2021 financial year, the long-term bonus 2021–2023/2024 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 2021 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), and establishes a direct link to HeidelbergCement's share price development and thereby strengthens 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 share at the start of the performance period (allocation price). The allocation price is the average of the daily closing prices of the HeidelbergCement 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 2021–2023/2024 and the tranche 2021 of the capital market component is €57.00. 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 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 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 2021-2023/2024:

Allocation long-term bonus 2021-2023/2024	Management component	Capital market component				
€'000s	Target value	Target value	Allocation price in €	Number of provisionally allocated PSUs	Maximum possible number of PSUs [1]	**Overall target value**
Dr Dominik von Achten	1,088	1,088	57.00	19,079	**38,158**	**2,175**
René Aldach [1]	292	313		5,485	**10,969**	**604**
Kevin Gluskie	575	576		10,104	**20,208**	**1,151**
Hakan Gurdal	480	480		8,427	**16,853**	**960**
Ernest Jelito	438	438		7,675	**15,350**	**875**
Dr Nicola Kimm [1]	292	313		5,485	**10,969**	**604**
Dennis Lentz [1]	292	313		5,485	**10,969**	**604**
Jon Morrish	564	564		9,891	**19,783**	**1,127**
Dr Lorenz Näger [2]	458	458		8,041	**16,082**	**917**
Chris Ward	444	444		7,786	**15,571**	**888**
Gesamt	4,921	4,985		87,457	**174,913**	**9,906**

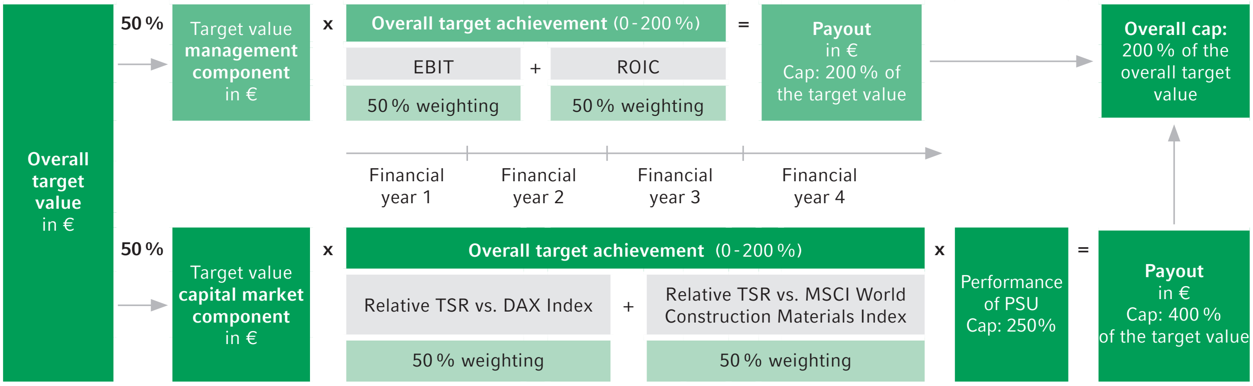
1) Calculation basis: pro-rata calculation to the day as of 1 September 2021 over the term of three and four years, respectively.
2) Calculation basis: pro-rata calculation to the day until 31 August 2021 over the term of three and four years, respectively.

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 daily 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 achievement of the capital market component can offset the achievement of the management component.

Long-term bonus



Performance criteria of the management component

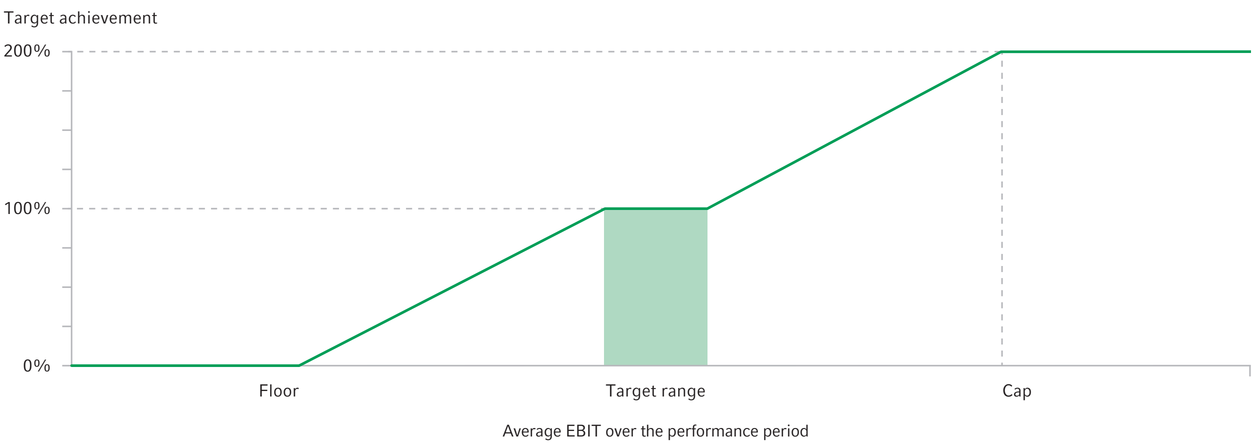
The overall target achievement for the management component is on the basis of the equally weighted performance criteria EBIT and ROIC.

EBIT

The basis for the performance criterion is EBIT, which is adjusted for one-time special effects that could not be foreseen when planning and defining the targets. As for the calculation of the Group share of profit, only special effects above a threshold of €20 million are taken into account.

EBIT is a measure of profitability and reflects the economic strength of HeidelbergCement. Combined with the consideration of the Group share of profit 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 operational 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. Target achievement ranges from 0 % to 200 %.

Performance criterion EBIT



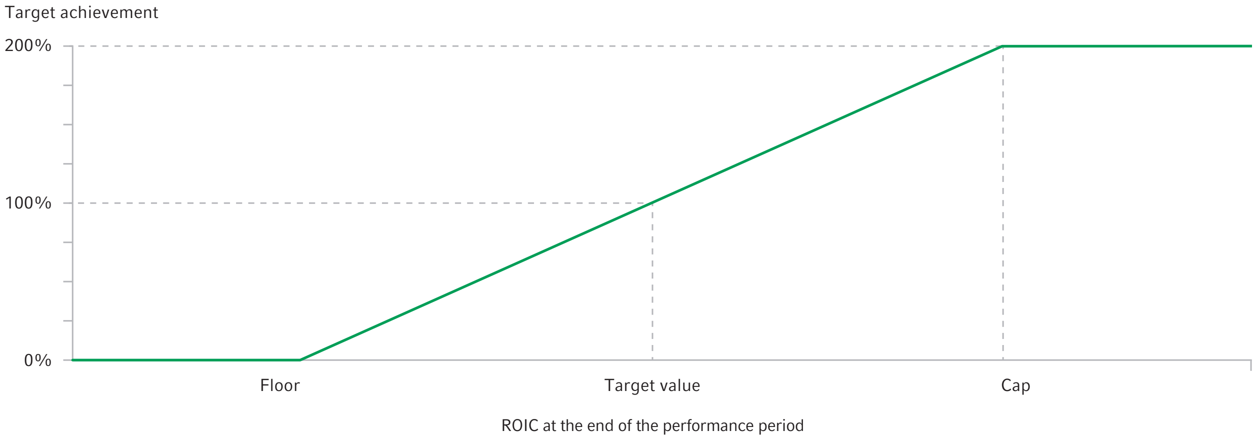
For the performance criterion EBIT, the defined target corridor, the thresholds (upper and lower limit), as well as the resulting target achievement and the adjustments made for the calculation of target achievement are disclosed in the remuneration report after the performance period has lapsed.

ROIC

The performance criterion is based on ROIC, which similar to Group share of profit and EBIT is adjusted for special effects above a threshold of €20 million. ROIC is the ratio between the result from current operations minus current tax expense (adjusted for impairment effects) and the average invested capital (average of the opening and closing balance of the respective financial year). It is one of the key performance indicators of HeidelbergCement. HeidelbergCement aims to achieve a ROIC of clearly above 8 % by 2025. The inclusion of ROIC as a performance criterion in the long-term bonus therefore provides further incentive 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. The target value determined by the Supervisory Board is significantly derived from the three-year operational plan. Target achievement ranges 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 lapsed.

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

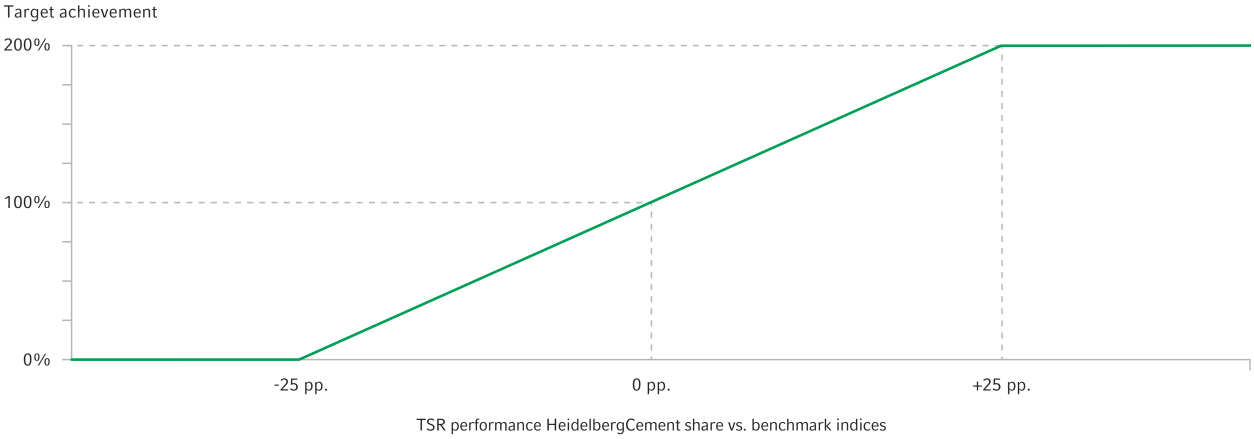
The TSR performance is determined by comparing the performance of the HeidelbergCement share (calculated as increase in share value while taking into account reinvested dividend payments and adjustment for changes in capital) with the performance of the two capital market indices DAX and MSCI World Construction Materials Index.

Relative TSR represents a capital market-oriented performance criterion is used that provides an incentive for the sustainable and long-term outperformance of the benchmark groups and is thus in line with HeidelbergCement's target of offering shareholders an attractive investment opportunity. Furthermore, the relative TSR adds a relative performance metric to the long-term bonus.

The range of target achievement 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 allocation date. The development in TSR of HeidelbergCement 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 2021 financial year
At the end of the 2021 financial year, the 2019 tranche of the management component (long-term bonus 2019–2021/2022) and the 2018 tranche of the capital market component (long-term bonus 2018–2020/2021) were completed.

2019 tranche of the management component
The target achievement for the 2019 tranche of the management component was determined on the basis of the equally weighted performance criteria EBIT and ROIC. The structure of the two completed tranches largely corresponds to the tranches of the long-term bonus allocated in the 2021 financial year. ROIC is measured for the 2019 tranche on the basis of EBIT less taxes paid divided by invested capital in the last year of the performance period. Taxes paid correspond to taxes paid as reported in the cash flow statement, adjusted for the special effect from the disposal of the West region in the USA (net €441 million). Invested capital is comprised of equity and net debt at the end of the performance period. The change in currency differences since the third quarter of 2018 in equity (€928.7 million) and the special effects from impairments recognised in 2020 (€3,304.3 million) were corrected.

Before the start of the tranche, a target corridor of €2,176 million to €2,276 million was set for EBIT. The actual EBIT value, which is calculated as the average of the EBIT over the three years of the performance period, was €2,398 million (2019: €2,307 million, 2020: €2,319 million, 2021: €2,568 million). The individual annual figures are adjusted for the special effects 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 2021, the special effects from gains on disposals explained above, in particular the West region in the USA, the effects from the change in the fair value of a financial investment and the income from the reconsolidation of discontinued operations in the USA were corrected. This results in a target achievement for EBIT of 200 %.

Before the start of the tranche, a target value of 7.30 % was set for ROIC for which a target achievement of 120 % could be reached. The actual ROIC value according to the definition of the long-term bonus 2019-2021/22 was 9.05 % and corresponds to a target achievement of 200 %.

Based on the target achievement for the two performance criteria, the overall target achievement for the 2019 tranche of the management component is 200 %. The following 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 2019-2021/2022	Target achievement curve				
€'000s	Floor	Target corridor/value	Cap	Actual value	Target achievement
EBIT (50 %)	2,076	2,176 - 2,276	2,376	2,398	**200 %**
ROIC [1] (50 %)	6.10 %	7.30 %	8.10 %	9.05 %	**200 %**
Total (100 %)					**200 %**

1) For the 2019 tranche of the management component, a target achievement of 120 % was set for the ROIC if the target corridor is reached.

The following table shows the payout amount per member of the Managing Board resulting from the overall target achievement for the 2019 tranche of the management component:

Management component of long-term bonus 2019-2021/2022		Target achievement			
€'000s	Target value	EBIT	ROIC	Total	Payout
Dr Dominik von Achten	688				**1,375**
Kevin Gluskie	538				**1,076**
Hakan Gurdal	438				**875**
Ernest Jelito	365	200 %	200 %	200 %	**730**
Jon Morrish	538				**1,075**
Dr Lorenz Näger	531				**1,063**
Chris Ward	356				**713**
Total	3,453				**6,906**

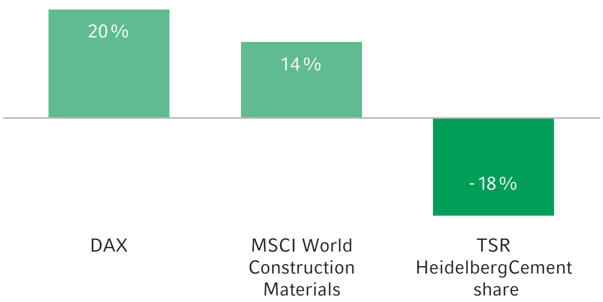
The payment from the 2019 tranche of the management component will be made following the Annual General Meeting in 2022.

2018 tranche of the capital market component

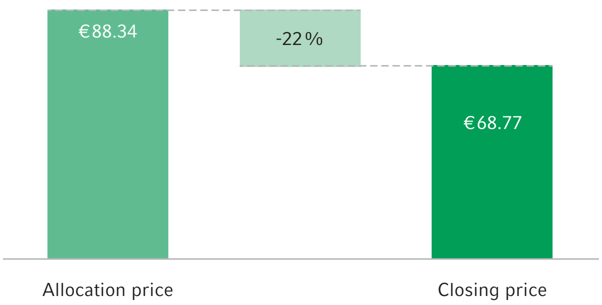
The target achievement for the 2018 tranche of the capital market component was measured analogously to the tranche allocated in the 2021 financial year on the basis of the performance criterion relative TSR.

While the DAX recorded an increase of 20.2 % over the four-year performance period compared with the reference period and the MSCI World Construction Materials Index an increase of 13.9 %, the TSR of the HeidelbergCement share was -17.5 % at the end of the performance period. This results in a difference of -37.7 percentage points compared with the DAX and a difference of -31.4 percentage points compared with the MSCI World Construction Materials Index. The average difference amounts to -34.6 percentage points. The overall target achievement rate for the relative TSR is therefore 0 % for the 2018 tranche of the capital market component. The allocation price for determining the number of provisionally allocated PSUs at the start of the tranche was €88.34. The closing price, including notionally reinvested dividends and adjusted for changes in capital, was €68.77 at the end of the performance period. This corresponds to a development of -22.15 % over the performance period.

Performance of the benchmark indices and the TSR of the HeidelbergCement share



Development of the HeidelbergCement share



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 2018-2020/2021							
€'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		7,782		0		**0**
Kevin Gluskie	567		6,420		0		**0**
Hakan Gurdal	436	88.34	4,937	0.00 %	0	68.77	**0**
Jon Morrish	534		6,045		0		**0**
Dr Lorenz Näger	531		6,014		0		**0**
Total	2,756		31,198		0		**0**

The payment from the 2018 tranche of the capital market component will be made following the Annual General Meeting in 2022.

Pension commitment

Defined contribution pension commitment

Members of the Managing Board who have been newly appointed or reappointed since 2019 will receive a defined contribution pension commitment, based on which the company will pay the member an annual pension contribution. The amount of this contribution is checked periodically. In the framework of a capital market-oriented model, the 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 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 are currently receiving a defined contribution pension commitment. As part of the defined contribution pension commitment, an annual cash allowance is made available to Chris Ward, which can be used to finance a private pension plan.

Defined benefit pension commitment before 2019 (old commitment)

The retirement agreements of the members of the Managing Board appointed prior to 2016 contain the commitment of an annual retirement pension in the form of an absolute amount. This applies to Dr Lorenz Näger, who received a value-based benefit commitment up to the time of his departure. In addition to his defined contribution pension commitment, Dr Dominik von Achten received a value-based benefit commitment 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 are currently receiving this defined benefit pension commitment. The percentage is a maximum of 4 % per commenced year of service; the maximum sum is 40 % of the pensionable income. The pensionable income was agreed upon individually with each member of the Managing Board and is regularly reviewed for appropriateness and market conformity as part of the Managing Board remuneration.

Upon reappointment, existing defined benefit pension 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 the defined contribution pension 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 and contribution pension commitments, a transitional allowance in the amount of the monthly salary instalments on the basis of the fixed annual 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 during the term of his or her employment contract or after benefit commencement, the widow or widower and the dependent children receive a widow’s or orphan’s pension. In the case of defined benefit pension 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 pension commitments, the full entitlement to the pension credit shall pass to the widow or widower and the surviving children.

The service costs and the present values of the existing pension obligations as at 31 December 2021 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	2020	2021	2020	2021
Dr Dominik von Achten [1]	676	**427**	13,612	**13,859**
René Aldach	–	**83**	–	**88**
Kevin Gluskie	840	**843**	4,411	**5,171**
Hakan Gurdal	648	**664**	3,477	**4,019**
Ernest Jelito	449	**460**	704	**1,175**
Dr Nicola Kimm	–	**83**	–	**93**
Dennis Lentz	–	**83**	–	**86**
Jon Morrish	612	**600**	3,145	**3,606**
Dr Lorenz Näger [2]	608	**963**	11,464	**12,556**
Total	3,833	**4,205**	36,813	**40,653**

1) Due to the fixing of Dr von Achten's defined benefit commitment in 2020, the service costs for 2021 only include the defined contribution commitment.
2) The increased service costs for Dr Näger for 2021 compared to 2020 are due to his early retirement in 2021 and the associated early benefit commencement.

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 significant number of shares of Heidelberg-Cement AG 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 share-holders and at the same time aligning the remuneration of the Managing Board even further with the long-term success of HeidelbergCement. The number of HeidelbergCement shares to be held is 30,000 for the Chairman of the Managing Board and 15,000 for the members of the Managing Board. Before 2019, the obligation for members of the Managing Board was 10,000 HeidelbergCement 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, in case 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. The accumulation of 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 2021 of current members of the Managing Board		
€'000s	Target	Status
Dr Dominik von Achten	30,000	Investment target fully achieved
René Aldach [1]	15,000	In accumulation phase
Kevin Gluskie	10,000	Investment target fully achieved
Hakan Gurdal	10,000	Investment target fully achieved
Ernest Jelito [1]	15,000	In accumulation phase
Dr Nicola Kimm [1]	15,000	In accumulation phase
Dennis Lentz [1]	15,000	In accumulation phase
Jon Morrish	15,000	Investment target fully achieved
Chris Ward [1]	15,000	In accumulation phase

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 2021 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 case of departure

Leaver rules

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 causes before the end of the performance period, the claims to the annual bonus and long-term bonus shall lapse.

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’s membership as a result of a change of control shall not exceed 150 % of the severance pay cap. Managing Board contracts 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 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 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 HeidelbergCement AG or another company of the HeidelbergCement Group, either independently or in an employed 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 may waive the post-contractual non-compete clause before the termination of the employment contract.

In 2021, a compensation of €725 thousand was paid to Dr Bernd Scheifele. To settle all claims for the period between his early departure and the regular termination of his employment and pension contract, Dr Lorenz Näger received a severance payment of €2,991 thousand.

Disclosure of benefits from third parties

For the 2021 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 2021 financial year

Remuneration of active Managing Board members in the 2021 financial year

The remuneration granted and owed to the individual members of the Managing Board in the 2021 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 inclusion of 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 2021 financial year pursuant to section 162 of the AktG consists of the following remuneration elements:
- The fixed annual salary paid in the 2021 financial year
- The fringe benefits accrued in the 2021 financial year
- The cash allowance paid for the 2021 financial year in the case of Chris Ward
- The annual bonus determined for the 2021 financial year (annual bonus 2021), which is paid in the 2022 financial year
- The 2019 tranche of the management component, which was completed at the end of the 2021 financial year and is paid in the 2022 financial year
- The 2018 tranche of the capital market component, which was completed at the end of the 2021 financial year and is paid in the 2022 financial year

Furthermore, the service costs of the pension commitments in accordance with IAS 19 for the 2021 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 in 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 [1] (since 1 February 2020)			**René Aldach** Chief Financial Officer (since 1 September 2021)		
€'000s / share of total remuneration in %	2020	2021		2020	2021	
Fixed annual salary	1,348	**1,450**	**26 %**	–	**200**	**40 %**
Fringe benefits	11	**11**	**0 %**	–	**5**	**1 %**
Contribution to private pension (cash allowance)	–	–		–	–	
One-year variable compensation	2,655	**2,770**	**49 %**	–	**297**	**59 %**
Annual bonus 2020	2,655	–		–	–	
Annual bonus 2021	–	**2,770**		–	**297**	
Multi-year variable compensation	1,089	**1,375**	**25 %**	–	–	**0 %**
Long-term bonus 2017-2019/2020						
Capital market component tranche 2017-2020	58	–		–	–	
Long-term bonus 2018-2020/2021						
Management component tranche 2018-2020	1,031	–		–	–	
Capital market component tranche 2018-2021	–	–		–	–	
Long-term bonus 2019-2021/2022						
Management component tranche 2019-2021	–	**1,375**		–	–	
Others	–	–	**0 %**	–	–	**0 %**
Granted and owed remuneration pursuant to section 162 of the AktG	5,104	**5,606**	**100 %**	–	**502**	**100 %**
Service costs	676	**427**	**–**	–	**83**	**–**
Total compensation	5,780	**6,033**	**–**	–	**585**	**–**

1) Until 31 January 2020 member of the Managing Board.

Granted and owed remuneration pursuant to section 162 of the AktG	Kevin Gluskie [1] Member of the Managing Board			Hakan Gurdal Member of the Managing Board		
€'000s / share of total remuneration in %	2020	2021		2020	2021	
Fixed annual salary	803	**913**	**24 %**	665	**764**	**27 %**
Fringe benefits	452	**463**	**12 %**	71	**84**	**3 %**
Contribution to private pension (cash allowance)	–	**–**		–	**–**	
One-year variable compensation	1,188	**1,314**	**35 %**	1,008	**1,133**	**40 %**
Annual bonus 2020	1,188	**–**		1,008	**–**	
Annual bonus 2021	–	**1,314**		–	**1,133**	
Multi-year variable compensation	833	**1,076**	**29 %**	686	**875**	**31 %**
Long-term bonus 2017-2019/2020						
Capital market component tranche 2017-2020	43	**–**		32	**–**	
Long-term bonus 2018-2020/2021						
Management component tranche 2018-2020	790	**–**		654	**–**	
Capital market component tranche 2018-2021	–	**–**		–	**–**	
Long-term bonus 2019-2021/2022						
Management component tranche 2019-2021	–	**1,076**		–	**875**	
Others	–	**–**	**0 %**	–	**–**	**0 %**
Granted and owed remuneration pursuant to section 162 of the AktG	3,277	**3,766**	**100 %**	2,430	**2,856**	**100 %**
Service costs	840	**843**	**–**	648	**664**	**–**
Total compensation	4,117	**4,608**	**–**	3,078	**3,520**	**–**

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.

Granted and owed remuneration pursuant to section 162 of the AktG	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 %	2020	2021		2020	2021	
Fixed annual salary	665	**700**	**28 %**	–	**200**	**35 %**
Fringe benefits	24	**27**	**1 %**	–	**72**	**13 %**
Contribution to private pension (cash allowance)	–	**–**		–	**–**	
One-year variable compensation	1,047	**1,045**	**42 %**	–	**293**	**52 %**
Annual bonus 2020	1,047	**–**		–	**–**	
Annual bonus 2021	–	**1,045**		–	**293**	
Multi-year variable compensation	–	**730**	**29 %**	–	**–**	**0 %**
Long-term bonus 2017-2019/2020						
Capital market component tranche 2017-2020	–	**–**		–	**–**	
Long-term bonus 2018-2020/2021						
Management component tranche 2018-2020	–	**–**		–	**–**	
Capital market component tranche 2018-2021	–	**–**		–	**–**	
Long-term bonus 2019-2021/2022						
Management component tranche 2019-2021	–	**730**		–	**–**	
Others	–	**–**	**0 %**	–	**–**	**0 %**
Granted and owed remuneration pursuant to section 162 of the AktG	1,736	**2,502**	**100 %**	–	**565**	**100 %**
Service costs	449	**460**	**–**	–	**83**	**–**
Total compensation	2,185	**2,962**	**–**	–	**648**	**–**

Granted and owed remuneration pursuant to section 162 of the AktG	Dennis Lentz [1] Member of the Managing Board (since 1 September 2021)			Jon Morrish Member of the Managing Board		
€'000s / share of total remuneration in %	2020	2021		2020	2021	
Fixed annual salary	–	**200**	**38 %**	817	**899**	**26 %**
Fringe benefits	–	**25**	**5 %**	174	**79**	**2 %**
Contribution to private pension (cash allowance)	–	**–**		–	**–**	
One-year variable compensation	–	**303**	**57 %**	1,287	**1,362**	**40 %**
Annual bonus 2020	–	**–**		1,287	**–**	
Annual bonus 2021	–	**303**		–	**1,362**	
Multi-year variable compensation	–	**–**	**0 %**	831	**1,075**	**31 %**
Long-term bonus 2017-2019/2020						
Capital market component tranche 2017-2020	–	**–**		32	**–**	
Long-term bonus 2018-2020/2021						
Management component tranche 2018-2020	–	**–**		799	**–**	
Capital market component tranche 2018-2021	–	**–**		–	**–**	
Long-term bonus 2019-2021/2022						
Management component tranche 2019-2021	–	**–**		–	**1,075**	
Others	–	**–**	**0 %**	–	**–**	**0 %**
Granted and owed remuneration pursuant to section 162 of the AktG	–	**528**	**100 %**	3,109	**3,415**	**100 %**
Service costs	–	**83**	**–**	612	**600**	**–**
Total compensation	–	**611**	**–**	3,721	**4,015**	**–**

1) As of 1 December 2021, 70 % of Dennis Lentz's fixed annual salary, the annual bonus and the long-term bonus were paid by Lehigh Hanson. The remaining 30 % are paid by HeidelbergCement AG. Until 30 November 2021, 100 % of the remuneration of Dennis Lentz was paid by HeidelbergCement AG.

Granted and owed remuneration pursuant to section 162 of the AktG	Dr Lorenz Näger Dep. Chairman of the Managing Board [1] (1 Feb. 2020 until 31 Aug. 2021)			Chris Ward [2] Member of the Managing Board		
€'000s / share of total remuneration in %	2020	2021		2020	2021	
Fixed annual salary	1,024	**733**	**11 %**	699	**710**	**25 %**
Fringe benefits	36	**23**	**0 %**	59	**58**	**2 %**
Contribution to private pension (cash allowance)	–	**–**		371	**356**	**12 %**
One-year variable compensation	1,591	**1,081**	**17 %**	1,022	**1,013**	**36 %**
Annual bonus 2020	1,591	**–**		1,022	**–**	
Annual bonus 2021	–	**1,081**		–	**1,013**	
Multi-year variable compensation	839	**1,063**	**17 %**	–	**713**	**25 %**
Long-term bonus 2017-2019/2020						
Capital market component tranche 2017-2020	42	**–**		–	**–**	
Long-term bonus 2018-2020/2021						
Management component tranche 2018-2020	797	**–**		–	**–**	
Capital market component tranche 2018-2021	–	**–**		–	**–**	
Long-term bonus 2019-2021/2022						
Management component tranche 2019-2021	–	**1,063**		–	**713**	
Others [3]	55	**3,507**	**55 %**	–	**–**	**0 %**
Granted and owed remuneration pursuant to section 162 of the AktG	3,545	**6,407**	**100 %**	2,152	**2,850**	**100 %**
Service costs	608	**963**	**–**	–	**–**	**–**
Total compensation	4,153	**7,370**	**–**	2,152	**2,850**	**–**

1) Until 31 January 2020 member of the Managing Board.

2) 90 % of Chris Ward's fixed annual salary, the annual bonus and the long-term bonus are paid by Lehigh Hanson. The remaining 10 % is paid by HeidelbergCement AG.

3) In the case of Dr Lorenz Näger, the 2020 value includes a crediting of mandate remuneration of the subsidiary Indocement against the annual bonus of €55 thousand. In 2021, the mandate remuneration of the subsidiary Indocement will be credited in the amount of €57 thousand. In addition, a severance payment of €2,991 thousand is taken into account in 2021, as well as a prepayment of the long-term bonus plan 2021-2023/2024 of €458 thousand.

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 2019 tranche of the management component, which was completed at the end of the 2021 financial year, and from the 2018 tranche of the capital market component, which was also completed at the end of the 2021 financial year.

The following tables summarise the main elements of the tranches:

Summary of management component of long-term bonus 2019-2021/2022 for former members of the Managing Board		Target achievement			
€'000s	Target value	EBIT	ROIC	Total	**Payout**
Dr Bernd Scheifele	1,219	200 %	200 %	200 %	**2,438**
Dr Albert Scheuer	313				**625**

Summary of capital market component of long-term bonus 2019-2021/2022 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 Bernd Scheifele	1,219	88.34	13,796	0.00 %	0	68.77	**0**
Dr Albert Scheuer	469		5,306		0		**0**

The payment of the tranches will be made following the Annual General Meeting in 2022. Further information on the 2019 tranche of the management component and the 2018 tranche of the capital market component can be found in the section Tranches completed at the end of the 2021 financial year.

The following tables list the remuneration granted and owed to the former members of the Managing Board in the 2021 financial year pursuant to section 162 of the AktG:

Granted and owed remuneration pursuant to section 162 of the AktG for former members of the Managing Board	**Dr Bernd Scheifele** Chairman of the Managing Board (until 31 Jan. 2020)		**Dr Albert Scheuer** Member of the Managing Board (until 5 Aug. 2019)	
€'000s / share of total remuneration in %	**2021**		**2021**	
Multi-year variable compensation	**2,438**	**60 %**	**312**	**36 %**
Long-term bonus 2018-2020/2021				
Capital market component tranche 2018-2021	–		–	
Long-term bonus 2019-2021/2022				
Management component tranche 2019-2021 [1]	**2,438**		**312**	
Others [2]	**725**	**18 %**	**281**	**32 %**
Total	**3,163**	**–**	**593**	**–**
Retirement and transitional payments	**900**	**22 %**	**280**	**32 %**
Granted and owed remuneration pursuant to section 162 of the AktG	**4,063**	**100 %**	**873**	**100 %**

1) In the case of Dr Albert Scheuer, the value for 2021 includes a crediting of a prepayment for the long-term bonus 2019 - 2021/2022 in the amount of € 313 thousand.
2) Includes the payment of a waiting allowance to Dr Scheifele and Dr Scheuer as well as the assumption of tax consultancy costs for Dr Scheuer.

Remuneration of the Supervisory Board in the 2021 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 2021 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 %	2020	2021		2020	2021		2020	2021		2020	2021
Fritz-Jürgen Heckmann (Chairman)	190	**200**	73 %	45	**45**	16 %	16	**28**	10 %	251	**273**
Heinz Schmitt (Deputy Chairman)	114	**120**	63 %	45	**45**	24 %	16	**26**	14 %	175	**191**
Barbara Breuninger	76	**80**	63 %	25	**25**	20 %	16	**22**	17 %	117	**127**
Birgit Jochens	76	**80**	66 %	20	**20**	16 %	16	**22**	18 %	112	**122**
Ludwig Merckle	76	**80**	46 %	65	**65**	38 %	16	**28**	16 %	157	**173**
Tobias Merckle	76	**80**	82 %	–	**–**		14	**18**	18 %	90	**98**
Luka Mucic	76	**80**	45 %	70	**70**	40 %	14	**26**	15 %	160	**176**
Dr Ines Ploss	76	**80**	66 %	20	**20**	16 %	16	**22**	18 %	112	**122**
Peter Riedel	76	**80**	63 %	25	**25**	20 %	16	**22**	17 %	117	**127**
Werner Schraeder	76	**80**	53 %	45	**45**	30 %	16	**26**	17 %	137	**151**
Margret Suckale	76	**80**	52 %	45	**45**	29 %	14	**28**	18 %	135	**153**
Prof. Dr Marion Weissenberger-Eibl	76	**80**	80 %	–	**–**		12	**20**	20 %	88	**100**
Total	1,064	**1,120**	62 %	405	**405**	22 %	182	**288**	16 %	1,651	**1,813**

Comparative presentation of the remuneration and earnings development

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 2021 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 earnings development of the company. For the employees, the total workforce of HeidelbergCement AG excluding the Managing Board was taken into account.

Development of the average target direct remuneration of the Managing Board and workforce of HeidelbergCement AG

€'000s	2017	Change	2018	Change	2019	Change	2020	Change	2021
Development of earnings									
Result from current operations before depreciation and amortisation in €m	3,297	-6 %	3,100	15 %	3,580	4 %	3,707	5 %	3,875
Group share of profit/loss in €m	918	25 %	1,143	-5 %	1,091	(-296 %) [1]	-2,139	(-182 %) [1]	1,759
Net profit/net loss of HeidelbergCement AG pursuant to the HGB in €m	-82	-149 %	-204	(-177 %) [1]	35	(-346 %) [1]	-86	(-556 %) [1]	392
Employees [2]									
Average									
	69	4 %	71	1 %	72	-1 %	71	4 %	74
Active members of the Managing Board in the financial year									
Dr Dominik von Achten (Chairman) [3]									
René Aldach [4]	4,816	-13 %	4,210	-14 %	3,611	41 %	5,104	10 %	5,606
Kevin Gluskie	–		–		–		–	–	502
Hakan Gurdal	2,208	28 %	2,830	16 %	3,287	0 %	3,277	15 %	3,766
Ernest Jelito	1,617	21 %	1,963	16 %	2,286	6 %	2,430	18 %	2,856
Dr Nicola Kimm [4]	–		–		809	115 %	1,736	44 %	2,502
Dennis Lentz [4]	–		–		–		–	–	565
Jon Morrish	–		–		–		–	–	528
Dr Lorenz Näger [5]	1,762	38 %	2,425	16 %	2,806	11 %	3,109	10 %	3,415
Chris Ward	3,823	-10 %	3,457	-17 %	2,878	23 %	3,544	81 %	6,407
	–		–		780	176 %	2,152	32 %	2,850
Former members of the Managing Board									
Dr Bernd Scheifele [6]	8,493	-7 %	7,933	-19 %	6,433	-62 %	2,439	67 %	4,063
Dr Albert Scheuer [7]	3,540	-15 %	3,003	-27 %	2,179	-66 %	743	17 %	873
Members of the Supervisory Board [8]									
Fritz-Jürgen Heckmann (Chairman)	232	0 %	232	11 %	257	-2 %	251	9 %	273
Heinz Schmitt (Deputy Chairman)	162	0 %	162	9 %	177	-1 %	175	9 %	191
Barbara Breuninger	–		58	83 %	106	10 %	117	9 %	127
Birgit Jochens	–		–		71	58 %	112	9 %	122
Ludwig Merckle	172	0 %	172	-3 %	166	-5 %	157	10 %	173
Tobias Merckle	80	-3 %	78	15 %	90	0 %	90	9 %	98
Luka Mucic	–		–		101	58 %	160	10 %	176
Dr Ines Ploss	–		–		71	58 %	112	9 %	122
Peter Riedel	–		–		74	58 %	117	9 %	127
Werner Schraeder	107	0 %	107	21 %	130	5 %	137	10 %	151
Margret Suckale	35	191 %	102	25 %	128	5 %	135	13 %	153
Prof. Dr Marion Weissenberger-Eibl	80	0 %	80	13 %	90	-2 %	88	14 %	100

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) Since 1 February 2020
4) Since 1 September 2021
5) Deputy Chairman of the Managing Board until 31 August 2021
6) Chairman of the Managing Board until 31 January 2020
7) Member of the Managing Board until 5 August 2019
8) Individual amounts may fluctuate due to entries and exits during the year as well as changing committee activities.

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 [4]
- Verlag Lensing-Wolff GmbH & Co. KG ("Lensing Media") [2], Dortmund

Dr Lorenz Näger

Deputy Chairman of the Managing Board and Chief Financial Officer until 31 August 2021
Member of the Managing Board from 2004 until August 2021

Area of responsibility:
Finance, Group Accounting, Controlling, Tax, Treasury, Insurance & Corporate Risk Management, Data Governance, Shared Service Center, Purchasing

External mandates:
- MVV Energie AG [1) 3)], Mannheim
- PHOENIX Pharma SE [1] and PHOENIX Pharmahandel GmbH & Co KG [2], Mannheim [5]

Group mandates:
- Cimenteries CBR S.A. [2], Belgium (until 31 August 2021)
- ENCI Holding N.V. [2], Netherlands (until 31 August 2021)
- Hanson Pioneer España, S.L.U. [2], Spain (until 31 August 2021)
- HeidelbergCement Canada Holding Limited [2], UK (until 31 August 2021)
- HeidelbergCement Holding S.à.r.l. [2], Luxembourg (until 31 August 2021)
- HeidelbergCement UK Holding Limited [2], UK (until 31 August 2021)
- HeidelbergCement UK Holding II Limited [2], UK (until 31 August 2021)
- Italcementi S.p.A [2], Italy (Deputy Chairman) (until 31 August 2021)
- Lehigh Hanson, Inc. [2], USA (until 31 August 2021)
- Lehigh Hanson Materials Limited [2], Canada (until 31 August 2021)
- PT Indocement Tunggal Prakarsa Tbk. [2) 3)], Indonesia

René Aldach

Chief Financial Officer since 1 September 2021
Member of the Managing Board since 1 September 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)

4) Jointly meeting advisory board of Unternehmensgruppe Philippine Saarpor (Philippine Saarpor group)
5) Jointly meeting supervisory board and advisory board, respectively; non-listed

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 Investment Holdings Pte Ltd [2], Singapore
- 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, HC Trading

External mandates:
- Akçansa Çimento Sanayi ve Ticaret A.S. [2] [3], Turkey (Deputy Chairman)
- CEMZA (PTY) LTD [2], South Africa

Group mandates:
- Austral Cimentos Sofala SA [2], Mozambique
- CimBurkina S.A. [2], Burkina Faso (Chairman)
- Ciments du Maroc S.A. [2] [3], Morocco
- Ciments du Togo SA [2], Togo
- Ghacem Ltd. [2], Ghana (Chairman)
- Hanson Israel Limited [2], Israel
- HC Trading FZE [2], Dubai
- 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 June 2023

Area of responsibility:
Northern and Eastern Europe-Central Asia, Competence Center Cement

External mandates:
- Optima Medycyna S.A. [2], Poland (Chairman)

Group mandates:
- CaucasusCement Holding B.V. [2], Netherlands (Chairman)
- Ceskomoravský cement, a.s. [2], Czechia (Chairman)
- Devnya Cement AD [2], Bulgaria (Chairman)
- Duna-Dráva Cement Kft. [2], Hungary
- 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 Northern Europe AB [2], Sweden (Chairman)
- HeidelbergCement Romania SA [2], Romania
- JSC "Cesla" [2], Russia
- ShymkentCement JSC [2], Kazakhstan (Chairman)
- Tvornica Cementa Kakanj d.d. [2], Bosnia-Herzegovina
- Vulkan Cement AD [2], Bulgaria (Chairman)

Dr Nicola Kimm

Chief Sustainability Officer since 1 September 2021
Member of the Managing Board since 1 September 2021; appointed until August 2024

Area of responsibility:
Environmental Social Governance (ESG), Research & Development

External mandates:
- Dune TopCo BV [2], Netherlands
- EQT AB [2) 3)], Sweden

Dennis Lentz

Chief Digital Officer since 1 September 2021
Member of the Managing Board since 1 September 2021; appointed until August 2024

Area of responsibility:
Digitalisation, Information Technology

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 2023

Area of responsibility:
North America, Competence Center Materials

Group mandates:
- Cadman Materials, Inc. [2], USA
- 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)
- Hampshire Properties LLC [2], USA
- 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 2021 – or in case of an earlier retirement from the Managing Board of HeidelbergCement AG to the date of retirement – 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 Company 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
Stuttgart; Lawyer at the law firm Kees Hehl Heckmann and member of supervisory boards
Member since 8 May 2003, Chairman since 1 February 2005; 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)

Heinz Schmitt

Deputy Chairman
Heidelberg; Controller; member of the Council of Employees 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; Chairwoman of the Council of Employees 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 and Deputy Chairman of the Audit 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 [5]

Tobias Merckle

Leonberg; Managing Director of Seehaus e.V.
Member since 23 May 2006

Luka Mucic

Walldorf; Chief Financial Officer of SAP SE
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 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

External mandates:
– Zusatzversorgungskasse der Steine- und Erden-Industrie und des Betonsteinhandwerks VVaG – Die Bayerische Pensionskasse (ZVK) 2), Munich

Werner Schraeder

Ennigerloh; Building Fitter; Chairman of the General Council of Employees of HeidelbergCement AG, Chairman of the Council of Employees at the Ennigerloh plant of HeidelbergCement AG and Chairman of the Group Council of Employees
Member since 7 May 2009; member of the Audit and Personnel Committees

External mandates:
– Berufsgenossenschaft Rohstoffe und chemische Industrie 2), Heidelberg
– Volksbank eG 2), Warendorf

Margret Suckale

Hamburg; 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

Prof. 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 TechnologyManagement (iTM) at the Karlsruhe Institute of Technology (KIT)
Member since 3 July 2012; Chairwoman of the Mediation Committee and member of the Nomination Committee

External mandates:
– MTU Aero Engines AG 1) 3), Munich

The above-mentioned indications refer to 31 December 2021 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
5) Jointly meeting supervisory board and advisory board, respectively

Supervisory Board Committees

Personnel Committee

- Ludwig Merckle (Chairman)
- Fritz-Jürgen Heckmann
- Birgit Jochens
- Luka Mucic
- Dr Ines Ploss
- Heinz Schmitt
- Werner Schraeder
- Margret Suckale

Audit Committee

- Luka Mucic (Chairman)
- Ludwig Merckle (Deputy Chairman)
- Barbara Breuninger
- Fritz-Jürgen Heckmann
- Peter Riedel
- Heinz Schmitt
- Werner Schraeder
- Margret Suckale

Nomination Committee

- Ludwig Merckle (Chairman)
- Margret Suckale
- Prof. Dr Marion Weissenberger-Eibl

Mediation Committee, pursuant to section 27(3) of the German Codetermination Law

- Prof. Dr Marion Weissenberger-Eibl (Chairwoman)
- Fritz-Jürgen Heckmann
- Dr Ines Ploss
- Heinz Schmitt

4 Consolidated financial statements

Consolidated income statement

€m	Notes	2020	2021
Revenue	7.1	17,605.9	**18,719.9**
Change in finished goods and work in progress		-55.6	**66.8**
Own work capitalised		14.4	**20.0**
Operating revenue		17,564.7	**18,806.7**
Other operating income	7.2	379.5	**517.7**
Material costs	7.3	-6,482.9	**-7,305.4**
Employee and personnel costs	7.4	-3,025.4	**-3,108.0**
Other operating expenses	7.5	-5,007.5	**-5,392.5**
Result from equity accounted investments (REI)	7.6	278.5	**356.1**
Result from current operations before depreciation and amortisation (RCOBD)		3,707.1	**3,874.7**
Depreciation and amortisation	7.7	-1,343.9	**-1,260.5**
Result from current operations		2,363.2	**2,614.2**
Additional ordinary income	7.8	27.4	**775.1**
Additional ordinary expenses	7.8	-3,705.5	**-294.0**
Additional ordinary result		-3,678.1	**481.1**
Earnings before interest and taxes (EBIT)		-1,314.9	**3,095.3**
Interest income		40.1	**29.1**
Interest expenses	7.9	-233.0	**-220.8**
Foreign exchange gains and losses		-11.7	**9.8**
Result from other participations		16.9	**28.9**
Other financial result	7.10	-99.9	**-48.3**
Financial result		-287.5	**-201.3**
Profit/loss before tax from continuing operations		-1,602.4	**2,893.9**
Income taxes	7.11	-334.5	**-946.7**
Net income/loss from continuing operations		-1,937.0	**1,947.3**
Net loss from discontinued operations	7.12	-72.3	**-45.5**
Profit/loss for the financial year		-2,009.2	**1,901.7**
Thereof non-controlling interests		130.0	**142.8**
Thereof Group share of profit/loss		-2,139.2	**1,759.0**
Earnings per share in € (IAS 33)	7.13		
Earnings/loss per share attributable to the parent entity		-10.78	**8.91**
Earnings/loss per share – continuing operations		-10.42	**9.15**
Loss per share – discontinued operations		-0.36	**-0.23**

Consolidated statement of comprehensive income

€m	2020	2021
Profit/loss for the financial year	-2,009.2	**1,901.7**
Other comprehensive income		
Items not being reclassified to profit or loss in subsequent periods		
Remeasurement of the defined benefit liability (asset)	-108.5	**280.4**
Income taxes	34.3	**-83.6**
Defined benefit plans	-74.2	**196.8**
Investments in equity instruments – change in fair value	-131.0	
Net gains/losses arising from equity accounted investments	5.0	**6.1**
Total	-200.2	**202.9**
Items that maybe be reclassified subsequently to profit or loss		
Cash flow hedges – change in fair value	-6.5	**33.8**
Reclassification adjustments for gains/losses included in profit or loss	14.0	**-19.4**
Income taxes	-2.1	**-2.6**
Cash flow hedges	5.4	**11.8**
Currency translation	-1,339.9	**1,070.9**
Reclassification adjustments for gains/losses included in profit or loss	-1.4	**-19.6**
Income taxes	12.3	
Currency translation	-1,329.0	**1,051.3**
Net gains/losses arising from equity accounted investments	-40.8	**19.2**
Total	-1,364.4	**1,082.3**
Other comprehensive income	-1,564.6	**1,285.2**
Total comprehensive income	-3,573.9	**3,187.0**
Thereof non-controlling interests	17.9	**197.3**
Thereof Group share	-3,591.7	**2,989.7**

Consolidated statement of cash flows

€m	Notes	2020	2021
Net income/loss from continuing operations		-1,937.0	**1,947.3**
Income taxes		334.5	**946.7**
Interest income/expenses		192.8	**191.7**
Dividends received	8.1	223.3	**301.8**
Interest received	8.2	102.3	**75.0**
Interest paid	8.2	-367.6	**-287.6**
Income taxes paid	8.3	-340.9	**-747.3**
Depreciation, amortisation, and impairment		4,832.8	**1,104.9**
Other eliminations	8.4	98.7	**-607.4**
Cash flow		3,139.0	**2,925.0**
Changes in operating assets	8.5	125.1	**-650.5**
Changes in operating liabilities	8.5	110.5	**443.7**
Changes in working capital		235.5	**-206.8**
Decrease in provisions through cash payments		-328.2	**-244.8**
Cash flow from operating activities – continuing operations		3,046.4	**2,473.4**
Cash flow from operating activities – discontinued operations		-19.5	**-77.4**
Cash flow from operating activities		3,026.8	**2,396.0**
Intangible assets		-47.4	**-27.2**
Property, plant and equipment		-921.9	**-1,392.3**
Subsidiaries and other business units		-76.3	**-144.8**
Other financial assets, associates, and joint ventures		-21.8	**-35.0**
Investments (cash outflow)	8.6	-1,067.4	**-1,599.3**
Intangible assets		0.3	**0.3**
Property, plant and equipment		67.1	**183.8**
Subsidiaries and other business units		1.9	**2,004.9**
Other financial assets, associates, and joint ventures		48.9	**30.1**
Divestments (cash inflow)	8.7	118.2	**2,219.1**
Cash flow from investing activities		-949.3	**619.8**
Capital decrease – non-controlling interests		-10.2	**-0.5**
Dividend payments – HeidelbergCement AG		-119.1	**-436.5**
Dividend payments – non-controlling interests		-203.8	**-181.2**
Acquisition of treasury shares	8.8		**-349.8**
Decrease in ownership interests in subsidiaries	8.9	1.8	**2.9**
Increase in ownership interests in subsidiaries	8.9	-21.8	**-102.5**
Proceeds from bond issuance and loans	8.10	659.1	**1.7**
Repayment of bonds, loans, and lease liabilities	8.11	-2,893.4	**-1,803.8**
Changes in short-term interest-bearing liabilities	8.12	-53.8	**30.0**
Cash flow from financing activities		-2,641.2	**-2,839.7**
Net change in cash and cash equivalents – continuing operations		-544.1	**253.4**
Net change in cash and cash equivalents – discontinued operations		-19.5	**-77.4**
Net change in cash and cash equivalents		-563.6	**176.0**
Effect of exchange rate changes		-108.1	**64.8**
Cash and cash equivalents at 1 January		3,546.0	**2,874.3**
Cash and cash equivalents at 31 December	8.14	2,874.3	**3,115.1**
Reclassification of cash and cash equivalents according to IFRS 5		-17.1	**0.0**
Cash and cash equivalents presented in the balance sheet at 31 December	8.14	2,857.2	**3,115.1**

Consolidated balance sheet

Assets			
€m	Notes	31 Dec. 2020	31 Dec. 2021
Non-current assets			
Intangible assets	9.1		
Goodwill		8,588.8	**8,164.7**
Other intangible assets		361.2	**206.9**
		8,950.0	**8,371.6**
Property, plant and equipment	9.2		
Land and buildings		6,500.7	**6,866.8**
Plant and machinery		4,616.3	**4,511.6**
Other operating equipment		860.9	**869.7**
Prepayments and assets under construction		835.2	**1,382.7**
		12,813.1	**13,630.8**
Financial assets			
Investments in joint ventures	7.6	1,230.8	**1,281.1**
Investments in associates	7.6	540.5	**583.5**
Financial investments	9.3	78.2	**148.7**
Loans		103.3	**92.9**
Derivative financial instruments	9.7	39.6	**16.6**
		1,992.4	**2,122.7**
Fixed assets		23,755.6	**24,125.1**
Deferred taxes	7.11	343.2	**262.9**
Other non-current receivables and assets	9.4	898.9	**1,151.2**
Non-current income tax assets		25.6	**29.0**
Total non-current assets		25,023.2	**25,568.2**
Current assets			
Inventories	9.5		
Raw materials and consumables		882.5	**1,112.1**
Work in progress		295.1	**261.6**
Finished goods and goods for resale		784.5	**819.7**
Prepayments		9.3	**18.1**
		1,971.3	**2,211.4**
Receivables and other assets	9.6		
Current interest-bearing receivables		85.9	**76.4**
Trade receivables		1,562.4	**1,837.3**
Other current operating receivables and assets		597.8	**534.5**
Current income tax assets		80.6	**147.5**
		2,326.6	**2,595.6**
Current derivative financial instruments	9.7	114.4	**95.2**
Cash and cash equivalents	8.14	2,857.2	**3,115.1**
Total current assets		7,269.6	**8,017.3**
Assets held for sale	7.12	42.5	**125.4**
Balance sheet total		32,335.3	**33,710.9**

Equity and liabilities			
€m	Notes	31 Dec. 2020	31 Dec. 2021
Shareholders' equity and non-controlling interests			
Subscribed share capital	9.8	595.2	**595.2**
Share premium	9.9	6,225.4	**6,225.4**
Retained earnings	9.10	8,527.8	**10,015.7**
Other components of equity	9.11	-2,077.7	**-1,049.4**
Treasury shares	9.8		**-349.8**
Equity attributable to shareholders		13,270.8	**15,437.2**
Non-controlling interests	9.12	1,277.6	**1,222.3**
Total equity		14,548.4	**16,659.4**
Non-current liabilities	9.15		
Bonds payable		7,131.5	**5,363.6**
Bank loans		660.2	**262.4**
Other non-current interest-bearing liabilities		924.0	**906.8**
Non-controlling interests with put options		25.8	
		8,741.5	**6,532.8**
Pension provisions	9.13	1,027.4	**908.1**
Deferred taxes	7.11	584.6	**832.1**
Other non-current provisions	9.14	1,152.0	**1,503.0**
Other non-current operating liabilities		221.4	**50.6**
Non-current income tax liabilities		181.9	**178.6**
		3,167.2	**3,472.4**
Total non-current liabilities		11,908.7	**10,005.2**
Current liabilities	9.15		
Bonds payable (current portion)		577.0	**806.3**
Bank loans (current portion)		181.9	**474.0**
Other current interest-bearing liabilities		353.3	**333.3**
Non-controlling interests with put options		50.3	**79.9**
		1,162.5	**1,693.5**
Pension provisions (current portion)	9.13	92.2	**90.5**
Other current provisions	9.14	226.9	**322.3**
Trade payables		2,611.0	**3,180.4**
Other current operating liabilities		1,527.9	**1,541.9**
Current income tax liabilities		240.5	**192.8**
		4,698.5	**5,327.9**
Total current liabilities		5,861.0	**7,021.4**
Liabilities associated with assets held for sale	7.12	17.1	**24.9**
Total liabilities		17,786.8	**17,051.5**
Balance sheet total		32,335.3	**33,710.9**

Consolidated statement of changes in equity

€m	Subscribed share capital	Share premium	Retained earnings
1 January 2020	595.2	6,225.4	10,988.3
Loss for the financial year			-2,139.2
Other comprehensive income			-198.2
Total comprehensive income			-2,337.4
Change in consolidation scope			
Change in ownership interests in subsidiaries			-14.6
Change in non-controlling interests with put options			8.8
Transfer asset revaluation reserve			1.6
Other changes			0.1
Capital increase from corporate funds			
Repayment of capital			
Dividends			-119.1
31 December 2020	595.2	6,225.4	8,527.8
1 January 2021	595.2	6,225.4	8,527.8
Profit for the financial year			1,759.0
Other comprehensive income			200.4
Total comprehensive income			1,959.3
Change in consolidation scope			
Change in ownership interests in subsidiaries			-29.2
Change in non-controlling interests with put options			-7.3
Transfer asset revaluation reserve			1.5
Other changes			0.1
Repayment of capital			
Acquisition of treasury shares			
Dividends			-436.5
31 December 2021	595.2	6,225.4	10,015.7

1) The accumulated currency translation differences included in non-controlling interests changed in 2021 by €69.1 million (previous year: -98.0) to €-211.9 million (previous year: -281.1). The total currency translation differences recognised in equity thus amount to €-1,300.5 million (previous year: -2,386.7).

Other components of equity							
Cash flow hedge reserve	Asset revaluation reserve	Currency translation	Total other components of equity	Treasury shares	Equity attributable to shareholders	Non-controlling interests [1]	**Total equity**
-0.5	24.8	-846.1	-821.8		16,987.2	1,517.2	**18,504.4**
					-2,139.2	130.0	**-2,009.2**
5.2		-1,259.5	-1,254.3		-1,452.5	-112.1	**-1,564.6**
5.2		-1,259.5	-1,254.3		-3,591.7	17.9	**-3,573.9**
						-15.5	**-15.5**
					-14.6	-6.2	**-20.8**
					8.8	-21.3	**-12.5**
	-1.6		-1.6				
0.1			0.1		0.2	-0.2	**-0.1**
						1.5	**1.5**
						-11.7	**-11.7**
					-119.1	-204.0	**-323.1**
4.7	23.2	-2,105.6	-2,077.7		13,270.8	1,277.6	**14,548.4**
4.7	23.2	-2,105.6	-2,077.7		13,270.8	1,277.6	**14,548.4**
					1,759.0	142.8	**1,901.7**
13.3		1,017.0	1,030.3		1,230.7	54.5	**1,285.2**
13.3		1,017.0	1,030.3		2,989.7	197.3	**3,187.0**
						-9.2	**-9.2**
					-29.2	-70.4	**-99.7**
					-7.3	10.6	**3.3**
	-1.5		-1.5				
-0.6			-0.6		-0.4	-1.2	**-1.6**
						-0.5	**-0.5**
				-349.8	-349.8		**-349.8**
					-436.5	-181.9	**-618.4**
17.5	21.7	-1,088.6	-1,049.4	-349.8	15,437.2	1,222.3	**16,659.4**

Segment reporting / Part of the Notes to the consolidated financial statements

Group areas	Western and Southern Europe		Northern and Eastern Europe-Central Asia		North America	
€m	2020	2021	2020	2021	2020	2021
External revenue	4,910	**5,503**	2,830	**3,058**	4,617	**4,551**
Inter-Group areas revenue	50	**55**	23	**25**		**0**
Revenue	4,960	**5,557**	2,854	**3,084**	4,617	**4,551**
Change to previous year in %		**12.0 %**		**8.1 %**		**-1.4 %**
Result from equity accounted investments (REI)	29	**41**	28	**79**	53	**50**
Result from current operations before depreciation and amortisation (RCOBD)	859	**937**	718	**737**	1,019	**1,042**
as % of revenue (operating margin)	17.3 %	**16.9 %**	25.2 %	**23.9 %**	22.1 %	**22.9 %**
Depreciation and amortisation	-396	**-377**	-192	**-193**	-366	**-321**
Result from current operations	463	**561**	526	**544**	653	**722**
as % of revenue	9.3 %	**10.1 %**	18.4 %	**17.6 %**	14.1 %	**15.9 %**
Additional ordinary result						
Earnings before interest and taxes (EBIT)						
Capital expenditures [2]	296	**426**	160	**172**	281	**499**
Segment assets [3]	5,183	**5,219**	2,631	**2,684**	8,431	**8,394**
RCOBD as % of segment assets	16.6 %	**18.0 %**	27.3 %	**27.5 %**	12.1 %	**12.4 %**
Number of employees as at 31 December	15,250	**15,040**	11,097	**11,101**	8,585	**7,637**
Average number of employees	15,128	**15,087**	11,199	**11,144**	9,069	**8,922**

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

	Asia-Pacific		Africa-Eastern Mediterranean Basin		Group Services		Reconciliation 1)		Continuing operations	
	2020	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020	**2021**
	2,978	**3,098**	1,735	**1,837**	535	**672**			17,606	**18,720**
	20	**28**	30	**73**	475	**749**	-599	**-930**		
	2,998	**3,126**	1,765	**1,909**	1,010	**1,421**	-599	**-930**	17,606	**18,720**
		4.3 %		**8.2 %**		**40.7 %**				**6.3 %**
	147	**163**	16	**19**	4	**4**			279	**356**
	694	**670**	451	**490**	24	**30**	-57	**-33**	3,707	**3,875**
	23.1 %	**21.4 %**	25.5 %	**25.7 %**	2.3 %	**2.1 %**			21.1 %	**20.7 %**
	-248	**-234**	-109	**-106**	-4	**-1**	-29	**-29**	-1,344	**-1,261**
	446	**435**	342	**384**	20	**30**	-86	**-61**	2,363	**2,614**
	14.9 %	**13.9 %**	19.4 %	**20.1 %**	1.9 %	**2.1 %**			13.4 %	**14.0 %**
							-3,678	**481**	-3,678	**481**
							-1,315	**3,095**	-1,315	**3,095**
	133	**208**	95	**109**	4	**6**	98	**180**	1,067	**1,599**
	3,984	**4,103**	1,532	**1,601**	1	**1**			21,763	**22,002**
	17.4 %	**16.3 %**	29.4 %	**30.6 %**	>100 %	**>100 %**			17.0 %	**17.6 %**
	12,629	**12,460**	5,174	**4,886**	388	**85**			53,122	**51,209**
	12,866	**12,613**	5,236	**5,043**	421	**93**			53,920	**52,902**

Notes to the 2021 consolidated financial statements

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).

The core activities of HeidelbergCement 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 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 2021 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 are prepared in euro. The financial statements show a true and fair view of the assets, financial, and earnings position of the HeidelbergCement 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, and transaction costs for business combinations.

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 HeidelbergCement can exercise control over these companies. Control exists when HeidelbergCement 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, HeidelbergCement 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, HeidelbergCement has a significant influence on the operating and financial policies of the company. This is normally the case if HeidelbergCement 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. Transaction costs relating to business combinations are recorded as additional ordinary expenses.

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 are shown separately. In the case of put options held by non-controlling interests, the proportionate share of 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, on the other hand, 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, HeidelbergCement 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 HeidelbergCement.

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 HeidelbergCement 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 also eliminated unless the transaction provides evidence of an impairment of the asset transferred. When the share of losses attributable to HeidelbergCement 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. 2020	**31 Dec. 2021**	2020	**2021**
USD	USA	1.2216	**1.1370**	1.1416	**1.1830**
AUD	Australia	1.5876	**1.5647**	1.6556	**1.5751**
CAD	Canada	1.5545	**1.4373**	1.5297	**1.4829**
GBP	Great Britain	0.8937	**0.8413**	0.8895	**0.8600**
INR	India	89.7598	**84.2136**	84.5736	**87.4508**
IDR	Indonesia	17,231	**16,224**	16,696	**16,970**
MAD	Morocco	10.8848	**10.5061**	10.8254	**10.6329**

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. 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 shown 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 interest-bearing 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 shorter of the expected useful life and 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, HeidelbergCement 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 fixed assets.

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 HeidelbergCement, 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, France, and Sweden, the retirement benefit plans are predominantly financed by means of provisions. HeidelbergCement 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, the Democratic Republic of Congo, Indonesia, 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 more than 90 % of the defined benefit obligations.

The majority of defined benefit pension plans in North America have been closed to new entrants, and many have been frozen for future accruals. In North America, a retirement plans committee has been established by HeidelbergCement to serve as oversight of the pension administration, the fiduciary responsibilities of HeidelbergCement in relation to the retirement plans, and HeidelbergCement's 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 of HeidelbergCement 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 jurisdiction 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 in most cases 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 most 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. 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 other 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 financial statements and the tax accounts. 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 HeidelbergCement 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. Investments in equity instruments held for trading are allocated to the financial investment category fair value through profit or loss. The market value at the reporting date forms the basis of the fair value. For the other investments in equity instruments, 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. In principle, participations on which HeidelbergCement has no significant influence are measured at fair value through profit or loss and are therefore allocated to the financial investment category fair value through profit or loss. The revaluation of held shares at fair value through profit or loss is reported in the result from other participations. 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.

At initial recognition, a financial asset is measured 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, HeidelbergCement divides its debt instruments into the following two measurement categories:

- At amortised cost: Financial assets held for the collection of contractual cash flows that are solely payments of principal and interest are measured at amortised cost, provided that they are not allocated to a hedging relationship. 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.

– Fair value through profit or loss (FVTPL): Financial assets not meeting the criteria for the categories at amortised cost or fair value through other comprehensive income (FVOCI) are measured at fair value through profit or loss. Gains or losses are recognised directly in profit or loss in the period in which they are incurred.

In the HeidelbergCement Group, no financial assets are held for collecting contractual cash flows and selling financial assets, which means that no debt instruments were allocated to the category fair value through other comprehensive income.

Financial assets are derecognised from the balance sheet at the point in time that the financial asset was transferred and the derecognition criteria of IFRS 9 were met. The transfer of a financial asset is considered a derecognition if all risks and rewards have been substantially transferred. In case not all risks and rewards are transferred, the financial assets are derecognised when the control over the financial assets has been transferred.

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. In the past financial year (as in the previous year), there were no financial assets whose terms have been changed that would otherwise have been overdue or impaired.

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. This includes trade payables, other operating liabilities, and financial liabilities.

Non-current financial liabilities are discounted. In principle, the amortised cost in the case of current financial liabilities corresponds to the nominal value or the redemption amount.

The Group has not yet made use of the possibility of designating non-derivative financial instruments, 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 derivatives and non-derivative financial instruments at fair value through profit or loss are accounted for at the trade date.

A **derivative financial instrument** is a contract whose value is dependent on a variable, which usually requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors, and which is settled at a later date. All derivative financial instruments are measured at fair value on the trade date when initially recognised. The fair values are also relevant for the subsequent measurement. For derivative financial instruments, the fair value corresponds to the amount that HeidelbergCement would either receive or have to pay at the reporting date in the case of early termination of this financial instrument. This amount is calculated on the basis of the relevant exchange and interest rates as at the reporting date. The fair value of derivative financial instruments traded in the market corresponds to the market value.

In the HeidelbergCement Group, derivative financial instruments such as currency forwards, currency option contracts, interest rate swaps, or interest rate options are, in principle, used to minimise financial risks. The focus is on hedging interest, currency, and other market price risks. No derivative financial instruments are contracted or held for speculative purposes.

Contracts concluded for the purpose of receiving or supplying non-financial items pursuant to the company's 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.

Hybrid financial instruments consist of a non-derivative host contract and an embedded financial derivative. The two components are legally inseparable. These are usually contracts with riders. Separate accounting of the embedded derivative and the host contract is required if the economic characteristics and risks are not closely linked with the host contract, the embedded derivative fulfils the same definition criteria as a stand-alone derivative, and the hybrid financial instrument is not measured at fair value through profit or loss. Alternatively, the hybrid financial instrument may be measured in total at fair value through profit or loss unless the embedded derivative changes the resulting cash flows to an insignificant degree or separation of the embedded derivative is not permitted.

Hedge accounting denotes a specific accounting method that modifies the accounting of the hedged item and the hedge of a hedging relationship 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. Accordingly, hedge accounting is based on matching the offsetting values of the hedging instrument and the hedged item.

For accounting purposes, three types of hedges exist in accordance with IFRS 9. Specific requirements have to be met for hedge accounting.

- Cash flow hedges
  Where necessary, HeidelbergCement hedges the risk of fluctuation in future cash flows. The risk of interest rate fluctuations in the case of variable interest is hedged by means of swaps that convert variable interest payments into fixed interest payments. This method is also used for hedging currency risks of transactions to be executed in foreign currency in the future. The fair value of the derivatives used for hedging is shown in the balance sheet. As an offsetting item, the other components of equity are adjusted directly in equity to the amount of the effective portion of the change in fair value, taking deferred taxes into account. These amounts are reclassified to the income statement when the hedged item is also recognised in profit or loss. The ineffective portion of the change in fair value is recognised directly in profit or loss.

- Fair value hedges
  In individual cases, HeidelbergCement hedges against fluctuations in the fair value of assets or liabilities. Where necessary, the currency risk that arises when financial instruments are accounted for in a currency other than the functional currency is thus hedged. In addition, the fair value of fixed interest-bearing liabilities is selectively hedged by means of conversion to variable interest. In the case of hedging against fluctuations in the fair value, both the hedging instrument and the hedged portion of the risk of the underlying transaction are recognised at fair value. Changes in fair value are recognised in profit or loss.

- Hedging a net investment in a foreign operation
  When acquiring foreign companies, the investment can, for example, be hedged with loans in the functional currency of the foreign company. In these cases, the currency risk arising on the subsidiary's equity through fluctuations in exchange rates (translation risk) is designated as a hedged risk. The loans are translated using the exchange rate applicable at the reporting date. As an offsetting item, the currency translation reserve in equity is adjusted. Consequently, translation differences are recognised outside profit or loss in equity through other comprehensive income until the net investment is sold and are recognised in profit or loss on its disposal.

Derivative financial instruments for which hedge accounting is not applied nevertheless generally represent an effective hedge in an economic sense within the context of the Group strategy. In accordance with IFRS 9, these instruments should be accounted for at fair value. The changes in the fair values of these derivative financial instruments recognised in profit or loss are principally offset by changes in the fair values of the hedged items. In addition, CO_2 derivatives were concluded for trading purposes.

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.

HeidelbergCement 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 HeidelbergCement 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. Legal claims to receive consideration are then reported as trade receivables as soon as the legal claim is unconditional. HeidelbergCement 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

3.1 Initial application of accounting standards in the financial year

In the 2021 financial year, HeidelbergCement applied the following standards and interpretations of the International Accounting Standards Board (IASB) for the first time.

The **amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 Interest Rate Benchmark Reform – Phase 2** clarify that when determining contractual cash flows as a result of the IBOR reform, an update to the effective interest rate is sufficient to reflect the change in the alternative benchmark rate. Furthermore, the amendments provide for additional time-limited relief with regard to the application of specific hedge accounting requirements to hedging relationships directly affected by the IBOR reform. The amendments did not have any significant impact on the assets, financial, and earnings position of the Group. HeidelbergCement has made all necessary arrangements. The relevant contracts have been switched to the new benchmark rates or it has already been contractually agreed to switch to the new benchmark rate when the USD LIBOR ceases to apply in 2023.

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 HeidelbergCement Group, but whose application was not yet mandatory for the 2021 financial year.

Published, but not yet applicable accounting standards

Title	Date of initial application [1]	Endorsement by the EU Commission
Amendments to IFRS 3 Business Combinations	1 January 2022	yes
Amendments to IAS 16 Property, Plant and Equipment	1 January 2022	yes
Amendments to IAS 37 Provisions, Contingent Liabilities and Contingent Assets	1 January 2022	yes
Annual improvements to IFRS Standards 2018-2020 Cycle	1 January 2022	yes
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 1 Presentation of Financial Statements: Classification of Liabilities as Current or Non-current	1 January 2023	no
Amendments to IAS 12 Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction	1 January 2023	no

1) Fiscal years beginning on or after that date.

HeidelbergCement will not apply these standards and interpretations until the date when their application first becomes mandatory and after endorsement by the European Commission.

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. As at the date of transition, the amendments will not have any impact on the assets, financial, and earnings position of the Group, as they are to be applied to transactions taking place on or after the date of initial application of these amendments.

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 will not have a 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 will not have a 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 will not have a significant impact on the assets, financial, and earnings position of the Group.

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 impact is currently being examined. We assume that 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 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 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 (capitalization 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.

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. The possible impact of the current global coronavirus pandemic has also been taken into account. The actual values may differ from these estimates. The assumptions and estimates relate particularly to the necessity and calculation of impairment of goodwill, 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. 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.

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 7.11 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 140 f.** and in Note 9.13 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 9.14 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.

HeidelbergCement is subject to climate-related risks. According to the definition of the Task Force on Climate-related Financial Disclosures (TCFD), climate risks include both physical risks and transition risks. Physical climate risks, such as the impact of extreme weather scenarios including floods or droughts, can lead to a reduction in the useful lives of non-current assets. The useful lives are regularly checked and, if necessary, adjusted to the changed environment. As part of the structural transition to a low-carbon economy, HeidelbergCement anticipates a rise in prices for the acquisition of emission allowances. These cost increases are taken into account in the operational plans.

5 Changes in scope of consolidation

In addition to HeidelbergCement AG, the consolidated financial statements include 693 subsidiaries that have been fully consolidated, of which 20 are German and 673 are foreign companies. The changes in comparison with 31 December 2020 are shown in the following table.

Number of fully consolidated companies

	Germany	Abroad	Total
31 December 2020	22	713	**735**
First-time consolidations		8	**8**
Divestments		-17	**-17**
Incorporations / mergers / liquidations / method changes	-2	-31	**-33**
31 December 2021	20	673	**693**

A list of shareholdings of the HeidelbergCement Group as at 31 December 2021 on the basis of the regulations of section 313(2) of the German Commercial Code (HGB) is provided on ↗ page 198 f. It 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
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 HeidelbergCement 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, HeidelbergCement 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 is shown in the additional ordinary income.

On 31 December 2021, our subsidiary Cadman Materials, Inc., Washington, USA, 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 provisionally recognised goodwill of €82.4 million is tax-deductible and represents synergy and growth potential. The purchase price allocation is provisional, primarily because the measurement of property, plant and equipment has not yet been completed.

The following table shows the (provisional) fair values of the assets and liabilities added or acquired as part of the above-mentioned transactions.

(Provisional) fair values recognised as at the acquisition date

€m	Permanente Group	Corliss	Total
Property, plant and equipment	220.4	81.6	**302.1**
Financial fixed assets		0.3	**0.3**
Deferred taxes	81.8		**81.8**
Inventories	0.0	3.0	**3.0**
Trade receivables	1.0	6.0	**7.0**
Cash and cash equivalents	3.9	2.7	**6.5**
Other assets	1.3	0.5	**1.8**
Total assets	308.4	94.1	**402.5**
Provisions	279.7	1.9	**281.6**
Non-current liabilities	6.8	21.7	**28.5**
Current liabilities	1.0	18.8	**19.8**
Total liabilities	287.6	42.4	**330.0**
Net assets	20.8	51.7	**72.5**

The added or acquired property, plant and equipment relates to land and buildings (€262.0 million), plant and machinery (€38.5 million), and other operating equipment (€1.6 million).

As part of the business combinations, receivables with a provisional fair value of €7.1 million were acquired. These concern trade receivables amounting to €7.0 million and other operating receivables to the amount of €0.1 million. The gross value of the contractual receivables totals €7.3 million, of which €0.2 million is likely to be irrecoverable.

Since the business combinations took place, the companies have contributed €0.5 million to revenue and €-5.1 million to the profit for the financial year. If the business combinations had taken place on 1 January 2021, contributions to revenue and profit for the financial year would be €62.8 million and €11.0 million higher respectively. Transaction costs of €3.4 million arising in connection with the above-mentioned business combinations were recognised in the additional ordinary expenses.

Furthermore, HeidelbergCement 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.

Business combinations in the previous year

On 31 March 2020, our subsidiary Nordic Precast Group AB, Stockholm, Sweden, acquired 100 % of the shares in Kynningsrud Kasen AB, Uddevalla, Sweden, and Kynningsrud Prefab Holding AS, Halden, Norway, including its two 100 % subsidiaries (Kynningsrud Group). The two Norwegian companies Kynningsrud Prefab Holding AS, Halden, and Kynningsrud Prefab AS, Rolvsøy, were subsequently merged into our subsidiary Contiga AS, Moss, Norway, with retroactive effect from 31 March 2020. The acquisition expands our market presence in the precast concrete business in western Sweden and eastern Norway. The companies are established actors on the precast market in western Sweden, southern Norway, and Oslo, with production sites in Uddevalla, Sweden, and Fredrikstad, Norway. The purchase price amounted to €41.0 million and was paid in cash. The final goodwill of €24.3 million is not tax-deductible and represents synergy and growth potential.

On 4 May 2020, our subsidiary Ciments du Maroc S.A., Casablanca, Morocco, completed its acquisition of a 100 % shareholding in Les Cimenteries Marocaines du Sud S.A., Laâyoune (Cimsud). Subsequently, Cimsud was merged into our subsidiary Industrie Sakia El Hamra "Indusaha" S.A., Laâyoune, with retroactive effect from 4 May 2020. Cimsud operates a grinding plant in Laâyoune with an annual capacity of 500,000 tonnes. The acquisition increases our market share and is a further step in the development of activities in the cement, aggregates, and ready-mixed concrete sectors. The purchase price amounted to €26.2 million and was paid in cash. The final goodwill of €11.0 million, attributable to HeidelbergCement on a pro rata basis, is not tax-deductible and represents synergy potential.

The following table shows the final fair values of the assets and liabilities as at the acquisition date.

Fair values recognised as at the acquisition date

€m	Kynningsrud Group	Cimsud	Total
Intangible assets		0.1	**0.1**
Property, plant and equipment	25.4	18.6	**43.9**
Inventories	0.7	0.3	**1.0**
Trade receivables	12.4	0.3	**12.8**
Cash and cash equivalents	5.3	1.7	**7.0**
Other assets	7.7	0.1	**7.8**
Total assets	51.5	21.1	**72.6**
Deferred taxes	2.9		**2.9**
Non-current liabilities	10.6	14.3	**24.8**
Current liabilities	21.5	2.1	**23.5**
Total liabilities	34.9	16.3	**51.2**
Net assets	16.6	4.8	**21.4**

Furthermore, HeidelbergCement 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.

5.2 Divestments

Divestments in the reporting year

On 29 November 2020, HeidelbergCement 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. In the previous year, the assets and liabilities of the Hilal Group were classified in the balance sheet as held for sale pursuant to IFRS 5. 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 is shown in the additional ordinary income.

On 29 April 2021, HeidelbergCement 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 is shown in the additional ordinary income.

HeidelbergCement 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 provisional gain of €481.9 million, which is 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, HeidelbergCement signed an agreement to dispose of its shares in Sierra Leone Cement Corp Ltd., Freetown, Sierra Leone, ("Leocem") to the Diamond Cement Group. HeidelbergCement 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 is 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					
€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**

Incidental disposal costs of €44.6 million arose in connection with these divestments and were recognised in the additional ordinary expenses. Furthermore, HeidelbergCement 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

HeidelbergCement signed an agreement on 17 December 2019 regarding the sale of its 56.93 % shareholding in Mauritano-Française des Ciments S.A., Mauritania. The sale was completed on 8 January 2020. The sales price totals €7.2 million, of which a prepayment of €4.5 million was already received during the 2019 financial year. The remaining amount was collected in the 2020 financial year. The divestment resulted in a gain of €0.1 million, which is 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	
€m	Mauritania
Intangible assets	**0.0**
Property, plant and equipment	**1.7**
Other non-current assets	**0.5**
Inventories	**3.8**
Cash and cash equivalents	**4.5**
Other assets	**5.9**
Total assets	**16.6**
Provisions	**0.2**
Current liabilities	**4.3**
Total liabilities	**4.5**
Net assets	**12.1**

Furthermore, HeidelbergCement 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

HeidelbergCement's segment reporting is based on the Group's internal division into geographical regions, corresponding to the management organisation. HeidelbergCement 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, Gambia, Ghana, Israel, Liberia, Morocco, Mozambique, Sierra Leone, South Africa, Tanzania, Togo, and Turkey
- Group Services comprise the international trading activities as well as the activities in the United Arab Emirates.

HeidelbergCement 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	2020	2021	2020	2021
USA	3,888	**3,708**	7,912	**7,810**
Germany	1,368	**1,602**	1,503	**1,559**
United Kingdom	1,190	**1,498**	1,126	**1,221**
France	1,185	**1,313**	1,104	**1,120**
Australia	1,158	**1,244**	1,947	**2,006**
Indonesia	841	**857**	981	**1,016**
Canada	729	**852**	527	**582**
Italy	560	**656**	622	**566**
Other countries	6,687	**6,988**	6,043	**6,123**
Total	17,606	**18,720**	21,763	**22,002**

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	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Western and Southern Europe	2,527	**2,881**	1,077	**1,278**	1,922	**2,131**	373	**367**	-939	**-1,100**	4,960	**5,557**
Northern and Eastern Europe-Central Asia	1,532	**1,631**	525	**564**	560	**614**	437	**485**	-202	**-211**	2,854	**3,084**
North America	1,778	**1,828**	1,765	**1,718**	1,286	**1,231**	294	**279**	-505	**-504**	4,617	**4,551**
Asia-Pacific	1,617	**1,678**	512	**563**	1,106	**1,141**	44	**45**	-281	**-302**	2,998	**3,126**
Africa-Eastern Mediterranean Basin	1,448	**1,585**	78	**78**	350	**352**	40	**42**	-150	**-147**	1,765	**1,909**
Group Services					21		995	**1,421**	-5		1,010	**1,421**
Inter-Group area revenue within business lines	-33	**-27**	-36	**-38**			5	**7**			-64	**-58**
Total	8,869	**9,577**	3,922	**4,164**	5,244	**5,469**	2,188	**2,646**	-2,083	**-2,265**	18,140	**19,591**
Inter-Group area revenue between business lines									-534	**-871**	-534	**-871**
Total									-2,617	**-3,136**	17,606	**18,720**

7.2 Other operating income

Other operating income		
€m	2020	2021
Gains from sale of fixed assets	39.6	**113.5**
Income from ancillary business	41.6	**47.1**
Rental income	37.6	**35.7**
Foreign exchange gains	33.2	**28.7**
Reversal of provisions	18.4	**30.1**
Other income	209.2	**262.6**
	379.5	**517.7**

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 €53.7 million (previous year: 3.9). 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 €15.1 million (previous year: 16.0) from the participation in energy efficiency projects, premium income of reinsurers of €22.2 million (previous year: 21.6), 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 7.8.

7.3 Material costs

Material costs		
€m	2020	2021
Raw materials	2,496.6	**2,608.3**
Supplies, repair materials, and packaging	1,112.3	**1,204.9**
Costs of energy	1,506.4	**1,943.6**
Goods purchased for resale	1,019.9	**1,180.3**
Miscellaneous	347.7	**368.2**
	6,482.9	**7,305.4**

Material costs amounted to 39.0 % of revenue (previous year: 36.8 %).

7.4 Personnel costs and employees

Personnel costs		
€m	2020	2021
Wages, salaries, social security costs	2,822.9	**2,908.8**
Costs of retirement benefits	167.4	**164.2**
Other personnel costs	35.1	**35.0**
	3,025.4	**3,108.0**

Personnel costs equalled 16.6 % of revenue (previous year: 17.2 %). The development of expenses for retirement benefits is explained in Note 9.13 Pension provisions.

Annual average number of employees		
Categories of employees	2020	2021
Blue-collar employees	34,792	**33,718**
White-collar employees	18,794	**18,875**
Apprentices	334	**309**
	53,920	**52,902**

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 HeidelbergCement 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 2018	Plan 2019	Plan 2020	Plan 2021
Date of issuance	1 January 2018	1 January 2019	1 January 2020	1 January 2021
Term	4 years	4 years	4 years	4 years
Reference price at issuance	€88.34	€58.78	€65.84	€57.00
Maximum payment amount per PSU	€220.85	€146.95	€164.60	€142.50

The reconciliation of the number of PSUs granted from 1 January 2018 to 31 December 2021 is shown in the following table.

Number of PSUs	Plan 2018	Plan 2019	Plan 2020	Plan 2021
Granted as of 1 January 2018				
Additions	114,474			
Disposals	-2,729			
Granted as of 31 December 2018 / as of 1 January 2019	111,745			
Additions		178,084		
Disposals	-6,240	-8,426		
Granted as of 31 December 2019 / as of 1 January 2020	105,505	169,658		
Additions			149,384	
Disposals	-2,547	-3,319	-3,173	
Granted as of 31 December 2020 / as of 1 January 2021	102,958	166,339	146,211	
Additions				185,400
Disposals	-1,408	-3,534	-4,014	-9,273
Granted as of 31 December 2021	101,550	162,806	142,197	176,127

In the reporting year, all of the 101,531 PSUs from the 2017 plan granted as at 31 December 2020 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 15,885 points (previous year: 13,719) and the benchmark index MSCI World Construction Materials 277.5 points (previous year: 227.1).

The fair value and additional valuation parameters are shown in the tables below.

Fair value				
in €	Plan 2018	Plan 2019	Plan 2020	Plan 2021
Fair value as of 31 December 2018	20.19			
Fair value as of 31 December 2019	10.39	21.13		
Fair value as of 31 December 2020	5.97	19.92	39.15	
Fair value as of 31 December 2021		0.04	2.00	13.86

Measurement parameters	31 Dec. 2018	31 Dec. 2019	31 Dec. 2020	31 Dec. 2021
	Plans 2016/17/18	Plans 2017/18/19 [2]	Plans 2018/19/20 [2]	Plans 2019/20/21 [2]
Expected dividend yield	6.5 %	6.0 %	-0.8 %	-0.7 %
Share price at 31 December	€53.38	€64.96	€61.22	€59.52
Volatility of HeidelbergCement share [1]	18 %	19 %	32 %	32 %
Volatility of MSCI World Construction Materials Index [1]	13 %	13 %	25 %	26 %
Volatility of DAX 40 Index [1]	11 %	13 %	22 %	22 %
Correlation HeidelbergCement share / MSCI World Construction Materials Index [1]	93 %	87 %	67 %	92 %
Correlation HeidelbergCement share / DAX 40 Index [1]	63 %	69 %	51 %	89 %
Correlation DAX 40 Index / MSCI World Construction Materials Index [1]	77 %	90 %	92 %	97 %

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. 2019: Plan 2016 / 31 Dec. 2020: Plan 2017 / 31 Dec. 2021: Plan 2018).

The total expenditure on the capital market component of the long-term bonus plan amounted to €-2.7 million (previous year: 1.2). As at the reporting date, the provisions for the capital market component totalled €0.7 million (previous year: 3.9). The capital market component of the long-term bonus plan 2018–2020/21 is paid after the Annual General Meeting 2022. 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	2020	2021
Selling and administrative expenses	1,087.8	**1,117.3**
Freight	1,759.1	**2,032.8**
Expenses for third party repairs and services	1,786.6	**1,927.6**
Lease expenses	113.3	**113.9**
Other taxes	128.8	**126.6**
Foreign exchange losses	41.2	**32.6**
Losses from the derecognition of operating receivables	1.7	**4.2**
Impairment losses on operating receivables and contract assets	25.4	**2.2**
Other expenses	63.5	**35.3**
	5,007.5	**5,392.5**

The lease expenses include expenses for short-term leases of €106.8 million (previous year: 108.4) and expenses for leases of low-value assets of €7.1 million (previous year: 4.9). The expenses for variable lease payments not included in the measurement of lease liabilities amounted to €88.9 million (previous year: 91.4) 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 €6.3 million (previous year: 10.3).

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 7.8.

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.

Result from joint ventures

With its joint venture partners, HeidelbergCement operates numerous joint ventures worldwide. The following companies make an important contribution to the result from current operations of the HeidelbergCement 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 HeidelbergCement 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. HeidelbergCement procures its entire Australian cement requirement from Cement Australia.

- Texas Lehigh Cement Company LP, based in Austin, USA, operates one cement plant in Buda, Texas, and supplies the regional market. The joint venture partners HeidelbergCement and Eagle Materials, Inc. each hold 50 % of the capital shares in the company.

The following table shows the statement of comprehensive income for these material joint ventures (100 % values).

Statement of comprehensive income for material joint ventures	Cement Australia		Texas Lehigh Cement Company LP	
€m	2020	**2021**	2020	**2021**
Revenue	650.7	**731.5**	190.7	**175.5**
Depreciation and amortisation	-37.9	**-41.6**	-2.8	**-2.9**
Result from current operations	172.9	**185.8**	69.7	**56.2**
Additional ordinary result	-0.1	**0.0**		
Earnings before interest and taxes (EBIT)	172.8	**185.7**	69.7	**56.2**
Interest expenses	-14.8	**-11.4**		
Other financial income and expenses	-1.1	**-1.2**	-0.1	**-0.1**
Profit before tax	156.9	**173.1**	69.6	**56.1**
Income taxes	-8.5	**-8.3**	-0.6	**-0.5**
Profit for the financial year	148.4	**164.8**	69.0	**55.6**
Other comprehensive income	3.6	**1.0**	-12.1	**3.2**
Total comprehensive income	152.0	**165.8**	56.9	**58.8**

The assets and liabilities of the material joint ventures (100 % values), the reconciliation to the total carrying amount of the interest, and the dividends received by the joint ventures are shown in the following table.

Additional financial information for material joint ventures	Cement Australia		Texas Lehigh Cement Company LP	
€m	2020	2021	2020	2021
Intangible assets	20.7	**22.4**		
Property, plant and equipment	466.4	**478.6**	72.4	**84.1**
Financial fixed assets	38.5	**38.0**	14.8	**15.2**
Other non-current assets	1.9	**2.1**		
Total non-current assets	527.5	**541.1**	87.2	**99.3**
Cash and cash equivalents	2.9	**17.2**	4.6	**3.4**
Other current assets	114.1	**140.7**	51.4	**57.7**
Total current assets	117.0	**157.9**	56.0	**61.1**
Total assets	644.5	**699.0**	143.2	**160.4**
Non-current interest-bearing liabilities	279.4	**249.2**	4.5	**4.2**
Non-current provisions	7.4	**7.2**	3.1	**2.6**
Other non-current liabilities	13.0	**14.3**		
Total non-current liabilities	299.8	**270.7**	7.6	**6.8**
Current interest-bearing liabilities	35.5	**96.5**	0.6	**0.5**
Current provisions	10.3	**10.8**	0.3	
Trade payables	78.0	**105.8**	9.5	**11.3**
Other current liabilities	62.1	**65.3**	4.2	**5.2**
Total current liabilities	185.9	**278.4**	14.6	**17.0**
Total liabilities	485.7	**549.1**	22.2	**23.8**
Net assets	158.8	**149.9**	121.0	**136.6**
Group share in %	50.0	**50.0**	50.0	**50.0**
Group share of net assets	79.4	**74.9**	60.5	**68.3**
Goodwill	345.6	**350.7**	34.7	**37.3**
Total carrying amount of the interest	425.0	**425.6**	95.2	**105.6**
Dividends received	29.1	**90.1**	31.8	**24.4**

HeidelbergCement also holds investments in individually immaterial joint ventures. The summarised financial information for these companies is shown in the following table (HeidelbergCement shareholding).

Summarised financial information for immaterial joint ventures		
€m	2020	2021
Investments in immaterial joint ventures	710.6	**749.9**
Result from immaterial joint ventures	107.7	**171.9**
Other comprehensive income	-28.7	**15.1**
Total comprehensive income	79.0	**187.0**
Unrecognised share of losses of the period	-0.2	**-1.5**
Unrecognised share of losses cumulated	-1.0	**-2.6**

Result from associates

The following table shows the summarised financial information concerning the associates.

Summarised financial information for associates		
€m	2020	2021
Investments in associates	540.5	**583.5**
Result from associates	62.1	**74.0**
Other comprehensive income	-3.6	**6.1**
Total comprehensive income	58.5	**80.1**
Unrecognised share of losses of the period	-1.2	**-5.5**
Unrecognised share of losses cumulated	-3.9	**-7.4**

7.7 Amortisation and depreciation of intangible assets and property, plant and equipment

Scheduled amortisation of intangible assets and depreciation of property, plant and equipment is determined on the basis of the following Group-wide useful lives.

Useful lives

	Years
Standard software	**3**
SAP applications	**3 to 5**
Buildings	**20 to 40**
Technical equipment and machinery	**10 to 30**
Plant and office equipment	**5 to 10**
IT hardware	**4 to 5**

Impairment losses are shown in the additional ordinary expenses.

7.8 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	2020	2021
Additional ordinary income		
Gains from the disposal of subsidiaries and other business units	4.3	**512.1**
Gains from the disposal of other non-current assets	5.7	**40.2**
Reversal of impairment losses	1.7	**201.3**
Other additional income	15.7	**21.6**
	27.4	**775.1**
Additional ordinary expenses		
Losses from the disposal of subsidiaries and other business units	-3.3	**-9.2**
Impairment of goodwill	-2,693.7	
Impairment of other intangible assets and property, plant and equipment	-803.0	**-73.1**
Restructuring expenses	-130.9	**-30.3**
Other additional expenses	-74.5	**-181.4**
	-3,705.5	**-294.0**
	-3,678.1	**481.1**

Additional ordinary income

In 2021, the gains from the disposal of subsidiaries and other business units were essentially attributable to the sale of the business activities in the West region of the USA amounting to €481.9 million and the disposal of Pioneer Concrete (Hong Kong) Ltd. amounting to €20.7 million. In the previous year, the item included gains from the deconsolidation of smaller participations. Gains from the disposal of other non-current assets resulted from the disposal of land and buildings not required for operations. The reversal of impairment losses is explained in Note 9.2. Other additional income includes the income from the reconsolidation of the Permanente Group of €20.8 million. In the 2020 financial year, the item primarily included income from indemnities.

Additional ordinary expenses

The losses from the disposal of subsidiaries and other business units in the 2021 financial year are essentially attributable to the liquidation of several participations. In the previous year, this item included losses from the divestment of a participation in Norway.

The impairment of goodwill in the 2020 financial year is explained in Note 9.1. 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 2021 financial year were primarily incurred in 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. In the previous year, the restructuring expenses were incurred in the Group areas of Western and Southern Europe with €98.6 million, Northern and Eastern Europe-Central Asia with €10.3 million, North America with €8.3 million, Asia-Pacific with €3.1 million, Africa-Eastern Mediterranean Basin with €3.0 million, and Group functions with €7.6 million.

Other additional expenses include 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. In the previous year, this item included additions to environmental provisions of €24.3 million, expenses of €10.2 million connected with the closure of locations, payments of €9.2 million into a COVID-19 special fund, additions to provisions for litigation risks of €7.0 million, transaction costs in connection with business combinations amounting to €7.0 million, and other expenses not reported in results from current operations.

7.9 Interest expenses

In the 2021 financial year, the interest expenses for lease liabilities amounted to €32.3 million (previous year: 37.8).

7.10 Other financial result

Other financial result

€m	2020	2021
Interest balance from defined benefit pension plans	-10.6	**-8.4**
Interest effect from the valuation of other provisions	-34.5	**5.7**
Valuation result of derivative financial instruments	-13.6	**-8.2**
Impairment losses on interest-bearing receivables	-8.2	**-7.4**
Miscellaneous other financial result	-33.0	**-29.9**
	-99.9	**-48.3**

Interest effects from the valuation of other provisions are explained in Note 9.14. 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 €6.6 million (previous year: 10.8).

7.11 Income taxes

Income taxes from continuing operations

€m	2020	2021
Current taxes		
Current taxes current year	-384.3	**-663.4**
Current taxes previous years	-48.7	**28.9**
	-433.0	**-634.4**
Deferred taxes		
Deferred taxes resulting from the recognition and reversal of temporary differences	125.1	**-68.6**
Deferred taxes resulting from carryforwards of unused tax losses and interest, tax credits	-29.5	**-202.9**
Deferred taxes resulting from changes in tax rate	2.9	**-40.8**
	98.5	**-312.2**
Income taxes from continuing operations	-334.5	**-946.7**

Adjusted for tax income for previous years, which amounted to €28.9 million (previous year: tax expenses of 48.7), the current tax expense increased by €279.1 million. This increase is mainly attributable to the sale of business activities in the USA Region West, which resulted in a current tax expense of €259.2 million. The deferred tax expense includes expenses of €68.6 million (previous year: tax income of 125.1) due to the recognition and reversal of temporary differences. The significant change compared with the previous year is mainly due to the COVID 19-related impairment of other intangible assets and property, plant and equipment in the previous year. This led to a deferred tax income of €173.8 million in the 2020 financial year. 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 €45.0 million (previous year: 56.5) 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 €61.1 million (previous year: 128.4) in the financial year. In the reporting year, deferred tax assets of

€11.4 million (previous year: 26.6) 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 the Netherlands 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 €2,646.3 million (previous year: 2,671.0). 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 €508.8 million (previous year: 737.9) and deductible temporary differences of €109.6 million (previous year: 74.2). Overall, unrecognised deferred tax assets amounted to €813.6 million (previous year: 808.3) in the reporting year.

In the financial year, €-86.2 million (previous year: 44.7) in deferred taxes was recognised directly in equity. These amounts result primarily from the measurement of pension provisions in accordance with IAS 19. Changes to the scope of consolidation led to a net increase in deferred tax assets of €82.5 million (previous year: increase in deferred tax liabilities of €2.8 million), recognised directly in equity. This increase is largely due to the reconsolidation of the Permanente Group. Explanations of the business combinations are provided under Note 5.1.

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 €52.1 million (previous year: 57.6) 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 €91.9 million (previous year: 58.4), 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 2020, 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.

A weighted average tax rate is established by taking the tax rate differentials into account. The increase in this rate in comparison with the earlier period is due to the change in the relative weighting of the companies' results.

Tax reconciliation of continuing operations

€m	2020	2021
Profit before tax	-1,602.4	**2,893.9**
Impairment of goodwill	-2,693.7	
Profit before tax and impairment of goodwill	1,091.3	**2,893.9**
Expected tax expense at national tax rate of 29.7 % (2020: 29.7 %)	-324.1	**-859.5**
Tax rate differentials	79.1	**179.7**
Expected tax expense at weighted average tax rate of 23.5 % (2020: 22.5 %)	-245.0	**-679.8**
Tax-free earnings (+) and non-deductible expenses (-)	-41.2	**-235.2**
Effects from carryforward of unused tax losses and interest, tax credits	71.9	**16.1**
Not recognised deferred tax assets	-28.8	**-25.4**
Tax increase (-), reduction (+) for prior years	-73.4	**34.3**
Changes in tax rate	2.9	**-40.8**
Others	-20.9	**-15.9**
Income taxes	-334.5	**-946.7**
Effective tax rate	30.7 %	**32.7 %**

Deferred tax by type of temporary difference		
€m	2020	2021
Deferred tax assets		
Fixed assets	67.7	**50.0**
Other assets	133.6	**89.7**
Provisions and liabilities	678.2	**737.4**
Carryforward of unused tax losses and interest, tax credits	399.5	**242.9**
Gross amount	1,279.1	**1,119.9**
Netting	-935.9	**-857.1**
	343.2	**262.9**
Deferred tax liabilities		
Fixed assets	1,230.4	**1,288.7**
Other assets	54.2	**71.5**
Provisions and liabilities	235.9	**329.0**
Gross amount	1,520.5	**1,689.1**
Netting	-935.9	**-857.1**
	584.6	**832.1**

7.12 Discontinued operations and disposal groups

Discontinued operations

The following table shows the composition of the result.

Net loss from discontinued operations		
€m	2020	2021
Income	0.2	
Expenses	-37.1	**-60.8**
Result before tax	-36.9	**-60.8**
Attributable income taxes	8.4	**15.3**
Result after tax	-28.5	**-45.5**
Loss on measurement	-43.8	
	-72.3	**-45.5**

The net loss essentially includes income and expenses incurred in connection with discontinued operations of the Hanson Group in previous years and that result primarily from provisions for damages and environmental obligations. Further details on the obligations are provided in Note 9.14 Other provisions.

The loss on measurement shown in the previous year related to the contingent purchase price receivable from the disposal of the Hanson Building Products operation on 13 March 2015. The receivable resulted from an additional earn-out clause agreed in the purchase agreement and was recognised in the 2014 financial year at a fair value of US$50 million, which was determined using probability forecasts. As part of the arbitration proceedings concluded in the 2020 financial year, it was determined that the receivable is now irrecoverable. The loss on measurement was reported in the result from discontinued operations in the same way as the original disposal result of the operation.

Disposal groups

As part of the portfolio optimisation and margin improvement programme in connection with the "Beyond 2020" strategy, HeidelbergCement concluded a number of agreements during the reporting period, which are described below.

On 30 April 2021, HeidelbergCement signed an agreement to sell its aggregates business and two ready-mixed concrete plants in Greece. In the future, HeidelbergCement 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.

HeidelbergCement signed an agreement on 2 August 2021 to sell its aggregates and ready-mixed concrete business in the Spanish region of Catalonia and, on 30 September 2021, an agreement to sell its aggregates and ready-mixed concrete business in the Madrid region and its ready-mixed concrete business on the Balearic Islands to different buyers. The transactions are subject to a number of conditions precedent before the final closing. The sale of the ready-mixed concrete business on the Balearic Islands was completed on 31 January 2022.

Furthermore, on 10 November 2021, HeidelbergCement signed an agreement on the sale of its activities in southern Spain to Votorantim Cimentos. The sale comprises the integrated cement plant in Málaga, three aggregates sites, and eleven ready-mixed concrete sites in Andalusia. In Spain, the company will now focus on its Northern cluster located in the Basque Country, with its three existing business lines of cement, aggregates, and ready-mixed concrete. Customers in this region are supplied with products from all three business lines. The transaction is subject to a number of conditions precedent. Final closing is expected to take place in the second half of 2022.

In the previous year, the disposal groups included the assets and liabilities of the participations in Kuwait. The sale was completed on 24 January 2021. 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	2020	2021
Intangible assets	1.1	**0.2**
Property, plant and equipment	11.5	**103.1**
Other non-current assets	0.1	**0.8**
Inventories	2.9	**12.0**
Cash and cash equivalents	17.1	**0.0**
Other current assets	9.8	**9.3**
Assets classified as held for sale	42.5	**125.4**
Pension provisions	2.2	**0.3**
Other non-current provisions	0.4	**5.7**
Non-current liabilities	7.6	**6.5**
Current provisions		**0.2**
Current liabilities	7.0	**12.2**
Liabilities classified as held for sale	17.1	**24.9**
Net assets	25.3	**100.5**

Other components of equity as at 31 December 2021 contain no expenses (previous year: €0.9 million) connected with disposal groups.

7.13 Earnings per share

Earnings per share

€m	2020	2021
Profit/loss for the financial year	-2,009.2	**1,901.7**
Non-controlling interests	130.0	**142.8**
Group share of profit/loss	-2,139.2	**1,759.0**
Number of shares in '000s (weighted average)	198,416	**197,308**
Earnings/loss per share in €	-10.78	**8.91**
Net income/loss from continuing operations – attributable to the parent entity	-2,066.9	**1,804.5**
Earnings/loss per share in € – continuing operations	-10.42	**9.15**
Net loss from discontinued operations – attributable to the parent entity	-72.3	**-45.5**
Loss per share in € – discontinued operations	-0.36	**-0.23**

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 losses, 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 use 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 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, €271.0 million (previous year: 180.6) relates to joint ventures, €29.0 million (previous year: 40.1) to associates, and €1.8 million (previous year: 2.6) to other participations.

8.2 Interest received/interest paid

The cash inflow from interest received decreased by €27.2 million to €75.0 million (previous year: 102.3). Interest payments amounted to €287.6 million in the financial year (previous year: 367.6). This item includes interest paid for lease liabilities of €32.3 million (previous year: 37.8).

8.3 Income taxes paid

This item includes payments relating to income taxes amounting to €747.3 million (previous year: 340.9).

8.4 Other eliminations

The other eliminations include non-cash expenses and income, such as results from equity accounted investments (REI) (before impairments or reversals of impairments), additions to and reversals of provisions, and impairments and reversals 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	2020	2021
Result from equity accounted investments	-287.2	**-355.7**
Addition / reversal of pension provisions	66.1	**50.1**
Addition / reversal of other provisions	302.9	**231.5**
Impairment / reversal of impairments of working capital	48.2	**86.5**
Result from divestments	-32.6	**-631.5**
Other non-cash expenses and income	1.4	**11.8**
	98.7	**-607.4**

8.5 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.

8.6 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 barter transactions or contributions in kind.

Of the total cash-relevant investments of €1,599.3 million (previous year: 1,067.4), €1,083.5 million (previous year: 833.1) related to investments to maintain and optimise capacity and €515.8 million (previous year: 234.4) to capacity expansions.

Investments in intangible assets and property, plant and equipment amounted to €1,419.5 million (previous year: 969.4) 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 less cash and cash equivalents acquired amounted to €144.8 million (previous year: 76.3); this figure was primarily attributable to the acquisition of Corliss Resources, LLC in North America. In the previous year, the payments resulted mainly from the acquisition of the Kynningsrud Group and Cimsud. Further details of the acquisitions are provided in Note 5.1.

The investments in financial assets, associates, and joint ventures totalled €35.0 million (previous year: 21.8).

8.7 Divestments (cash inflow)

The cash inflow from the disposal of subsidiaries and other business units less cash and cash equivalents disposed of amounted to €2,004.9 million (previous year: 1.9) and primarily relates to the sale of our business activities of USA Region West and our subsidiaries in Hong Kong, Kuwait, and Sierra Leone. Proceeds in the previous year mainly related to the sale of our subsidiary in Mauritania. 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 €184.1 million in the financial year (previous year: 67.4). The disposal of financial assets, associates, and joint ventures as well as the repayment of loans resulted in payments received of €30.1 million (previous year: 48.9).

8.8 Acquisition of treasury shares

Under the first tranche of the share buyback programme, 5,324,577 shares were acquired for a total of €349.8 million in the financial year.

8.9 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 proceeds of €2.9 million (previous year: 1.8) from the decrease in ownership interests in subsidiaries relate to the disposal of 2.0 % of the shares in Industrie Sakia El Hamra "Indusaha" S.A., Morocco. In the previous year, the proceeds related to the disposal of 2.5 % of the shares in Suez Cement Company S.A.E., Egypt. The payments made to increase ownership interests in subsidiaries totalled €102.5 million (previous year: 21.8) in the financial year, of which €97.9 million was connected with the 1.9 % increase in our share in PT Indocement Tunggal Prakarsa Tbk., Indonesia, through the acquisition of treasury shares. In the previous year, the payments related to the acquisition of 21.0 % of the shares in Suez Cement Company S.A.E., Egypt, amounting to €15.3 million, and of 18.5 % of the shares in Tourah Portland Cement Company S.A.E., Egypt, amounting to €5.0 million.

8.10 Proceeds from bond issuance and loans

In 2021, new loans amounting to €1.7 million were taken out. No new bonds were issued. In the previous year, this item included the issue of a bond with a nominal volume of €650.0 million.

8.11 Repayment of bonds, loans, and lease liabilities

This item includes the scheduled repayments of financial liabilities. In 2021, two bonds with a nominal volume totalling €1,500.0 million were repaid, as were lease liabilities amounting to €252.7 million (previous year: 270.9). In the previous year, this item included the repayment of four bonds totalling €2,550.0 million.

8.12 Changes in short-term interest-bearing 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.

8.13 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 interest-bearing liabilities	Lease liabilities	Non-controlling interests with put options	Derivative financial instruments (net position)	Total
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**
1 January 2020	9,636.7	879.6	111.8	1,285.7	63.7	-2.8	**11,974.7**
Cash flow from financing activities	-1,900.0	-37.6	-20.8	-270.9		-58.9	**-2,288.1**
Change in consolidation scope		14.9	10.9	-8.5			**17.3**
Currency translation		-12.3	-7.4	-39.9			**-59.6**
Changes in fair value						17.1	**17.1**
Other changes	-28.2	-2.5	-2.0	158.2	12.5		**138.0**
31 December 2020	7,708.5	842.1	92.5	1,124.7	76.1	-44.6	**9,799.4**

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 interest-bearing 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 positive net carrying amount of €27.1 million (previous year: 44.6) as at 31 December 2021. 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.

8.14 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, €16.6 million (previous year: 16.0) is not available for use by HeidelbergCement. This relates to short-term cash deposits at banks that were placed as security for various business transactions, for example outstanding recultivation payments and guarantees provided.

9 Notes to the balance sheet

9.1 Intangible assets

Intangible assets

€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**
Change in consolidation scope	75.2	-0.1	**75.1**
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**
Change in consolidation scope	-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**
Cost			
1 January 2020	13,173.2	775.5	**13,948.7**
Currency translation	-600.1	-23.3	**-623.4**
Change in consolidation scope	34.1	2.9	**37.0**
Additions		47.7	**47.7**
Disposals		-13.4	**-13.4**
Reclassifications		22.4	**22.4**
Reclassifications to current assets		-1.3	**-1.3**
31 December 2020	12,607.2	810.5	**13,417.7**
Amortisation			
1 January 2020	1,390.6	403.0	**1,793.6**
Currency translation	-65.9	-11.5	**-77.4**
Change in consolidation scope	-0.1		**-0.1**
Additions		46.4	**46.4**
Impairment	2,693.7	23.8	**2,717.5**
Disposals		-12.6	**-12.6**
Reclassifications		0.4	**0.4**
Reclassifications to current assets		-0.1	**-0.1**
31 December 2020	4,018.4	449.3	**4,467.8**
Carrying amount at 31 December 2020	**8,588.8**	**361.2**	**8,950.0**

Goodwill
An impairment test on goodwill in accordance with IAS 36 (Impairment of Assets) is generally performed annually within the HeidelbergCement 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. 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. 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.

Assumptions made in the calculation of impairment of goodwill

Group area / CGU [1]	Carrying amount of goodwill in €m		Weighted average cost of capital before taxes [2] in %		Weighted average cost of capital after taxes [2] in %		Perpetual growth rate in %	
	31 Dec. 2020	31 Dec. 2021	31 Dec. 2020	31 Dec. 2021	31 Dec. 2020	31 Dec. 2021	31 Dec. 2020	31 Dec. 2021
Western and Southern Europe	915.2	**918.6**	7.3 - 9.4	**7.9 - 10.2**	5.8 - 7.3	**6.2 - 8.0**	1.4 - 2.0	**1.3 - 2.0**
Benelux	222.3	**222.3**	7.6	**8.3**	6.2	**6.8**	1.7	**1.9**
Germany	366.6	**370.7**	7.3	**7.9**	5.8	**6.2**	2.0	**2.0**
Italy	1.1	**2.7**	9.4	**10.2**	7.3	**8.0**	1.4	**1.4**
United Kingdom	134.3	**131.9**	7.9	**8.6**	6.8	**7.4**	2.0	**2.0**
Northern and Eastern Europe-Central Asia	775.8	**781.8**	7.2 - 10.4	**7.6 - 10.9**	6.1 - 9.2	**6.5 - 9.7**	1.8 - 2.5	**1.9 - 2.5**
Czechia	135.9	**141.1**	8.2	**8.6**	7.2	**7.4**	2.0	**2.0**
Poland	148.4	**148.1**	8.5	**9.5**	7.4	**8.3**	2.4	**2.5**
North America	5,072.0	**4,598.6**	8.4	**9.4**	6.9	**7.7**	2.1	**2.2**
Asia-Pacific	1,398.1	**1,421.4**	5.8 - 15.0	**6.8 - 15.7**	5.8 - 12.8	**6.7 - 13.2**	0.3 - 5.5	**1.0 - 5.4**
Australia	1,051.3	**1,066.7**	8.6	**9.7**	6.8	**7.7**	2.4	**2.4**
India	208.1	**221.6**	12.2	**13.2**	9.6	**10.3**	4.0	**4.0**
Africa-Eastern Mediterranean Basin	427.8	**444.2**	7.1 - 26.9	**8.4 - 23.1**	5.8 - 22.3	**7.0 - 17.8**	0.8 - 8.4	**1.6 - 6.0**
Israel	69.2	**76.9**	7.1	**8.4**	5.8	**7.0**	0.8	**1.6**
Morocco	281.0	**291.2**	10.6	**11.3**	7.9	**8.4**	2.0	**2.0**
Total	8,588.8	**8,164.7**						

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.

In the 2021 financial year, the goodwill impairment test did not lead to any impairment.

For the CGUs Italy and Benelux, 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 by around 0.2 percentage points for the CGU Italy and around 1.8 percentage points for the CGU Benelux, 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 2.6 % for the CGU Italy, the recoverable amount and carrying amount are equal. With an increase in the weighted average cost of capital of around 0.2 percentage points for the CGU Italy, the recoverable amount corresponds to the respective carrying amount.

Without the aforementioned changes, the recoverable amount exceeds the carrying amount of the CGU Italy by €16.3 million and of the CGU Benelux by €221.6 million as at the reporting date.

With a reduction of 2.0 percentage points in the growth rate, a WACC increase of 1.0 percentage points, or a decline of 19.8 % 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.

In the previous year, the impairment test led to impairments of goodwill to the amount of €2,693.7 million. This impairment loss related to the CGUs United Kingdom (€1,420.5 million), France (€488.0 million), Benelux (€404.9 million), Malaysia (€139.8 million), Italy (€90.8 million), Kazakhstan (€48.0 million), Group Services (€30.9 million), Denmark (€24.2 million), Bulgaria (€13.2 million), Baltic States (€12.8 million), Togo (€10.0 million), Mozambique (€7.3 million), Liberia (€2.4 million), and Slovakia (€0.9 million), where the carrying amount exceeded the recoverable amount in accordance with the value-in-use method. The impairment of the CGUs Benelux, France, United Kingdom, Kazakhstan, Group Services, and Slovakia mainly resulted from a significantly weaker development of results as well as an increased cost of capital due to the adjustment of the market risk premium and the rise in the country risk premiums. The impairment of the CGU Malaysia, CGU Baltic States, and CGU Denmark resulted from a significantly poorer development of results. The impairment of the CGUs Bulgaria, Italy, Liberia, Mozambique, and Togo primarily resulted from an increase in the cost of capital, particularly of the market risk premium, in addition to the rise in the country risk premium.

Other intangible assets

Other intangible assets mainly include concessions and software. Spending on research and development of €122.8 million (previous year: 119.0) was recorded as an expense as it did not fulfil the recognition criteria for intangible assets.

In order to standardise the recognition of mineral reserves, a reclassification of €141.9 million was made from other intangible assets to land and buildings in property, plant and equipment in the reporting year.

9.2 Property, plant and equipment

Property, plant and equipment €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**
Change in consolidation scope	262.0	39.2	7.6	2.3	**311.0**
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**
Change in consolidation scope	-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**
Cost					
1 January 2020	10,600.3	13,711.4	1,967.1	1,136.1	**27,414.9**
Currency translation	-502.5	-685.0	-84.8	-53.0	**-1,325.3**
Change in consolidation scope	27.6	29.5	-11.8	1.2	**46.6**
Additions	138.0	86.6	171.5	733.2	**1,129.3**
Disposals	-81.5	-191.2	-84.1	-0.1	**-356.9**
Reclassifications	277.7	585.6	81.6	-967.3	**-22.4**
Reclassifications to current assets	-1.5	-4.1	-18.9		**-24.4**
31 December 2020	10,458.1	13,532.9	2,020.7	850.0	**26,861.7**
Depreciation					
1 January 2020	3,463.1	8,414.6	1,008.0		**12,885.8**
Currency translation	-151.2	-411.7	-50.7		**-613.6**
Change in consolidation scope	-2.1	4.6	-2.9		**-0.4**
Additions	332.4	711.1	254.0		**1,297.4**
Impairment	361.7	377.7	24.9	14.9	**779.2**
Reversal of impairment	-1.6				**-1.7**
Disposals	-45.7	-174.5	-65.4		**-285.5**
Reclassifications	2.0	-3.0	0.6		**-0.4**
Reclassifications to current assets	-1.2	-2.3	-8.8		**-12.2**
31 December 2020	3,957.3	8,916.5	1,159.8	14.9	**14,048.5**
Carrying amount at 31 December 2020	**6,500.7**	**4,616.3**	**860.9**	**835.2**	**12,813.1**

Exploitation land and mineral reserves are also recorded in land and buildings. In order to standardise the recognition of mineral reserves, €141.9 million was reclassified from other intangible assets to property, plant and equipment in the reporting year.

In the 2021 financial year, government grants totalling €90.4 million were deducted directly from the acquisition costs. The grants relate in particular to the construction of an industrial-scale carbon capture and storage (CCS) facility at our cement plant in Brevik, Norway. 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 €32.6 million (previous year: 36.1). Borrowing costs of €3.0 million (previous year: 1.5) were recognised. The average capitalisation rate applied was 2 % (previous year: 2 %). In the reporting year, impairment losses of €73.0 million were recognised; these are shown in the additional ordinary result.

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

€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**
Change in consolidation scope	22.0	12.6		**34.5**
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**
Change in consolidation scope	-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**
Cost				
1 January 2020	681.0	183.1	693.3	**1,557.3**
Currency translation	-26.1	-2.5	-23.0	**-51.6**
Change in consolidation scope	5.5		-13.9	**-8.4**
Additions	70.3	3.3	119.2	**192.8**
Disposals	-21.7	-0.9	-29.2	**-51.8**
Reclassifications		-2.5	2.4	**-0.1**
Reclassifications to current assets			-5.5	**-5.5**
31 December 2020	709.0	180.5	743.2	**1,632.8**
Depreciation				
1 January 2020	81.5	47.8	166.4	**295.7**
Currency translation	-4.5	-0.9	-8.4	**-13.9**
Change in consolidation scope			-3.3	**-3.2**
Additions	82.9	39.0	157.3	**279.2**
Impairment	28.8	15.5	7.3	**51.7**
Disposals	-8.4	-0.3	-13.3	**-22.0**
Reclassifications to current assets			-1.6	**-1.6**
31 December 2020	180.3	101.1	304.5	**585.9**
Carrying amount at 31 December 2020	**528.7**	**79.4**	**438.7**	**1,046.8**

Information on lease liabilities is provided in Note 8.13 and Note 9.15 as well as on ↗ page 193 and ↗ page 195.

The following table contains all the cash outflows for leases.

Cash outflow for leases		
€m	2020	2021
Principal payments for lease liabilities	270.9	**252.7**
Interest payments for lease liabilities	37.8	**32.3**
Short-term leases	108.4	**106.8**
Leases of low-value assets	4.9	**7.1**
Variable lease payments, that were not recognised in the lease liability	91.4	**88.9**
	513.4	**487.9**

Impairment of other intangible assets and property, plant and equipment

The impairments in the 2021 financial year are shown in the following table.

Impairment of other intangible assets and property, plant and equipment						
€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**

Impairment losses are shown in the additional ordinary expenses. The main impairments relate 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, Cementitious, and 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 to sell 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 to sell of €6.5 million. Assets within the CGU 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 to sell of €6.3 million. The reasons for the impairments 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 to sell of €20.7 million on the basis of an external expert opinion.

Reversals of impairments on property, plant and equipment

The reversals of impairments in the 2021 financial year are shown in the following table.

Reversals of impairments on property, plant and equipment

€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**

Reversals of impairment losses are shown in the additional ordinary income. The main reversals of impairment losses relate 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.

Impairment of other intangible assets and property, plant and equipment in the previous year

In the 2020 financial year, owing to the coronavirus pandemic and restructuring measures, HeidelbergCement conducted an impairment review of intangible assets and property, plant and equipment.

The impairments resulting from the review are shown in the table below.

Impairment of other intangible assets and property, plant and equipment

€m	Other intangible assets	Land and buildings	Plant and machinery	Other operating equipment	Prepayments and assets under construction	Total
Western and Southern Europe	6.1	174.3	180.0	7.3	3.3	**370.9**
United Kingdom		102.6	93.8	5.7		**202.1**
Italy	5.0	2.5	66.0	0.4		**73.9**
France		49.0	4.6		3.3	**56.9**
Spain	0.9	15.9	9.4	1.0		**27.2**
Other	0.3	4.3	6.2	0.2		**11.0**
Northern and Eastern Europe – Central Asia		6.1	10.8	0.7		**17.6**
North America	0.6	158.3	162.4	15.9	1.8	**338.9**
Africa-Eastern Mediterranean Basin			0.5		0.3	**0.7**
Asia-Pacific	17.1	23.1	24.1	1.0	9.6	**74.8**
Australia	17.1	21.0	17.9	0.9	5.2	**62.0**
Other	0.0	2.0	6.2	0.1	4.4	**12.8**
Total	23.8	361.7	377.7	24.9	14.9	**803.0**

The main impairments related to the CGUs in North America, the United Kingdom, Italy, Australia, France, and Spain.

In the case of North America, the impairment of assets was tested on the basis of management units in the regions and individual assets were impaired. The impairment in the West Region Cement management unit is equal to the total carrying amount of €165.8 million with a fair value of €0.0 million, largely as a result of the negative economic outlook related to the consequences of the coronavirus pandemic. The impairment of the Canada Region Prairies management unit amounts to a total of €113.0 million with a value in use or fair value of €101.6 million and a carrying amount of €207.2 million, caused by the negative outlook of the oil and gas industry in Canada, the investment climate, and the trade conflict with China. The impairment of individual assets amounts to €48.5 million. A cost of capital of 6.6 % was used.

In the case of the United Kingdom, the impairment of assets was tested on the basis of local cash-generating units (CGUs). Assets within the CGU Closed Sites were impaired by €26.9 million, with a carrying amount of €33.0 million and a value in use of €6.3 million. Assets within the CGU Hanson Quarry Products Europe were impaired by €121.1 million, with a carrying amount of €199.8 million and a value in use or fair value less costs to sell totalling €79.3 million. Assets within the CGU Cementitious were impaired by €53.9 million, with a carrying amount of €70.8 million and a value in use or fair value less costs to sell of €17.1 million. Assets within the CGU Marine were impaired by €0.2 million, with a carrying amount of €0.2 million and a fair value less costs to sell of €0.0 million. The main reasons for the impairment were the negative outlook due to the impact of the coronavirus pandemic and the rise in the cost of capital to 6.9 %.

In the case of Italy, the impairment of assets was tested on the basis of local cash-generating units (CGUs) and individual assets were impaired. The impairment in the CGU North amounts to a total of €29.9 million with a fair value of €521.8 million and a carrying amount of €551.7 million. Assets within the CGU South were impaired by €23.8 million, with a carrying amount of €139.9 million and a fair value of €116.1 million. An impairment of €9.6 million was applied to the remaining CGUs Centre, Sicily, and Sardinia. The reasons for the impairment were the reduced demand for cement due to the coronavirus pandemic and the rise in the cost of capital to 8.7 %. The impairment of other assets in the amount of €10.8 million was mainly due to the planned closure of locations.

In the case of Australia, the impairment of assets was tested on the basis of local cash-generating units (CGUs) within the various business lines. CGUs within the aggregates business line were impaired by €45.7 million, with a carrying amount of €65.6 million and a value in use or fair value less costs to sell totalling €18.0 million. The impairment of the CGUs in the ready-mixed concrete business line amounts to a total of €12.3 million, with a value in use or fair value less costs to sell totalling €3.5 million and a carrying amount of €16.3 million. The impairment in the CGU Suncoast in the asphalt business line is equal to the total carrying amount of €4.2 million with a fair value less costs to sell of €0.0 million. The main reasons for the impairment were the economic downturn and negative outlook due to the impact of the coronavirus pandemic. A cost of capital of 8.0 % was used.

In the case of France, the impairment of assets was tested on the basis of business lines and individual assets were impaired. Assets within the aggregates business line were impaired by €44.2 million, with a carrying amount totalling €154.3 million, as a result of new findings relating to mineral reserves and resources. For the same reason, assets within the cement business line were also impaired by €4.5 million, with a carrying amount of €163.0 million. The impairment of other assets in the amount of €8.2 million was mainly due to the planned conversion of plants.

In the case of Spain, the impairment of assets was tested on the basis of legal units within the various business lines. Assets within the aggregates business line were impaired by €13.9 million, with a carrying amount totalling €41.3 million. The impairment of assets in the cement business line amounts to a total of €12.3 million, with a carrying amount of €75.4 million. The reason for the impairment was the negative economic outlook due to the impact of the coronavirus pandemic. A cost of capital of 9.0 % was used. In addition, other assets of €1.2 million were impaired.

9.3 Financial investments

This item includes investments in equity instruments. Firstly, participations in subsidiaries, joint ventures, and associates of minor importance totalling €49.2 million (previous year: 44.6) are shown. These participations are still measured at cost as they are not in the scope of IFRS 9. Secondly, this item contains financial investments at fair value through profit or loss. These primarily include participations of €84.6 million (previous year: 21.4), on which HeidelbergCement has no significant influence.

Additional information on the financial investments is provided in Note 10.1.

9.4 Other non-current receivables and assets

The following table shows the composition of the other non-current receivables and assets.

Other non-current receivables and assets

€m	2020	2021
Other non-current operating receivables	61.9	**79.1**
Non-current contract assets	0.9	**1.0**
Other non-current non-financial assets	836.1	**1,071.1**
	898.9	**1,151.2**

Other non-current non-financial assets include overfunding of pension plans amounting to €948.7 million (previous year: 705.2), claims for reimbursement against insurance companies for environmental and third-party liability damages totalling €57.2 million (previous year: 64.3), and prepaid expenses.

An explanation of the credit risks is provided in Note 10.3.

9.5 Inventories

In the reporting year, impairments of inventories of €92.1 million (previous year: 38.4) and reversals of impairment losses of €14.9 million (previous year: 12.1) were recognised.

9.6 Receivables and other assets

The following overview shows the composition of the current operating receivables and assets.

Current operating receivables and assets

€m	2020	2021
Current trade receivables and other operating receivables – amortised cost	1,502.1	**1,564.9**
Current trade receivables and other operating receivables – fair value through profit or loss	300.0	**387.7**
Current contract assets	39.2	**38.4**
Current non-financial other assets	318.9	**380.7**
	2,160.2	**2,371.7**

HeidelbergCement is party to several factoring agreements for the revolving sale of trade receivables. There are no repurchase obligations for these receivables. The receivables of €720.4 million (previous year: 888.0) sold as at the reporting date were fully derecognised. The maximum exposure to loss from the continuing involvement amounts to €57.3 million (previous year: 69.0) 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 €22.9 million (previous year: 27.2) is reported in the cash and cash equivalents. Guarantees were granted in the amount of €32.3 million (previous year: 39.2). 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 €30.9 million (previous year: 57.8) were pledged as security. In connection with factoring transactions, the balance sheet items interest-bearing receivables with a gross carrying amount of €372.7 million (previous year: 353.8) and other current operating liabilities with a gross carrying amount of €1,838.2 million (previous year: 1,795.8) were netted; the netting amount totalled €296.3 million (previous year: 267.9). This results in a net carrying amount of €76.4 million (previous year: 85.9) and €1,541.9 million (previous year: 1,527.9) respectively.

Non-financial other assets essentially include non-income tax receivables and prepaid expenses. This item also shows claims for damages as well as claims for reimbursement against insurance companies for environmental and third-party liability damages amounting to €19.7 million (previous year: 16.5).

An explanation of the credit risks is provided in Note 10.3.

9.7 Derivative financial instruments

The non-current derivative financial instruments primarily relate to cross-currency interest rate swaps of €6.3 million (previous year: 13.9), interest rate swaps of €0.0 million (previous year: 24.3), and commodity derivatives of €10.3 million (previous year: 1.1). The current derivatives with positive fair values primarily include foreign exchange swaps of €51.8 million (previous year: 93.4), cross-currency interest rate swaps of €4.4 million (previous year: 6.1), interest rate swaps of €9.6 million (previous year: 9.4), and commodity derivatives of €28.4 million (previous year: 4.8). Additional information on the derivative financial instruments is provided in Note 10.2.

9.8 Subscribed share capital

As at the reporting date of 31 December 2021, the subscribed share capital amounts to €595,249,431, unchanged from the previous year. It is divided into 198,416,477 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 2021, 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 2021: 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 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 2021, 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 2021. 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, HeidelbergCement 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. HeidelbergCement 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 HeidelbergCement exclusively via the Xetra trading of the Frankfurt Stock Exchange.

The number of treasury shares as at 31 December 2021 is shown in the following overview:

Treasury shares

Number	Shares
1 January 2021	
Share buyback	5,324,577
31 December 2021	**5,324,577**

As at 31 December 2021, the company holds 5,324,577 treasury shares, corresponding to a nominal amount of €15,973,731 or 2.68 % of the company's subscribed share capital.

On 13 January 2022, the Managing Board resolved to cancel all treasury shares with a reduction of the subscribed share capital. Further details are provided in Note 11.8.

9.9 Share premium

The share premium of €6,225.4 million is unchanged from the previous year. It was essentially created from the premium from capital increases.

9.10 Retained earnings

The following table shows the change in ownership interests in subsidiaries that do not lead to a change in control.

Change 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	1.9 %	-25.4	-72.4	**-97.8**
Tourah Portland Cement Company S.A.E., Egypt	4.2 %	-4.6	1.8	**-2.8**
Other		0.8	0.2	**0.9**
Total		-29.2	-70.4	**-99.7**

In the financial year, dividends of €436.5 million (previous year: 119.1), i.e. €2.20 per share (previous year: €0.60 per share), were paid to shareholders of HeidelbergCement AG.

The Managing Board and Supervisory Board propose the payment of a dividend of €2.40 on each of the participating 193,091,900 no-par value shares for the 2021 financial year. As at the reporting date of 31 December 2021, the number of no-par value shares entitled to dividends is calculated from 198,416,477 shares issued less the 5,324,577 treasury shares acquired in the 2021 financial year. The number of no-par value shares entitled to dividends may be reduced by the date of the resolution on the use of the balance sheet profit as a result of the share buyback programme continued on 7 March 2022. In this case, if the distribution of €2.40 per participating share remains unchanged, an appropriately adjusted resolution proposal for the use of profit will be submitted to the Annual General Meeting.

9.11 Other components of equity

The change of €1,017.0 million in the currency translation reserve is essentially attributable to the appreciation in the value of the US dollar by €571.2 million, the British pound by €170.9 million, the Canadian dollar by €57.1 million, and the Indonesian rupiah by €53.9 million against the euro.

9.12 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 HeidelbergCement 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 47.1% (previous year: 49.0%) 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 €568.8 million (previous year: 599.1). The share of non-controlling interests in profit for the financial year totals €49.3 million (previous year: 52.8). In the 2021 financial year, Indocement paid dividends of €52.5 million (previous year: 78.8) 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	2020	2021
Revenue	849.6	**870.2**
Depreciation and amortisation	-85.1	**-79.9**
Result from current operations	126.8	**119.7**
Additional ordinary result	-13.7	**-0.8**
Earnings before interest and taxes (EBIT)	113.1	**118.8**
Interest income	23.1	**12.6**
Interest expenses	-2.9	**-1.6**
Other financial income and expenses	-2.9	**-1.5**
Profit before tax	130.3	**128.3**
Income taxes	-22.6	**-27.6**
Profit for the financial year	107.8	**100.7**
Other comprehensive income	-118.2	**107.0**
Total comprehensive income	-10.5	**207.7**

Assets and liabilities	Indocement Group	
€m	2020	2021
Intangible assets	1.0	**1.0**
Property, plant and equipment	906.7	**939.9**
Financial fixed assets	5.6	**8.3**
Other non-current assets	9.3	**10.6**
Non-current assets	922.6	**959.9**
Cash and cash equivalents	447.6	**378.5**
Other current assets	256.6	**307.2**
Current assets	704.2	**685.7**
Total assets	1,626.8	**1,645.6**
Non-current interest-bearing liabilities	14.3	**7.0**
Non-current provisions	36.0	**36.0**
Other non-current liabilities	11.6	**17.2**
Non-current liabilities	61.9	**60.3**
Current interest-bearing liabilities	16.1	**10.5**
Current provisions	4.6	**2.6**
Trade payables	132.3	**172.8**
Other current liabilities	95.5	**101.9**
Current liabilities	248.5	**287.9**
Total liabilities	310.4	**348.2**

9.13 Pension provisions

Defined contribution plans

The sum of all pension expenses in connection with defined contribution plans amounted to €115.2 million (previous year: 112.7). In the 2021 financial year, the contributions to the social security programmes came to €70.0 million (previous year: 71.0).

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
	2020	2021	2020	2021	
Group	1.55 %	**2.11 %**	2.56 %	**2.82 %**	-
North America	2.18 %	**2.63 %**	-	**-**	USA: PRI-2012; Canada: CPM 2014
United Kingdom	1.30 %	**2.00 %**	2.72 %	**3.01 %**	Different tables based on “S3” series
Germany	1.00 %	**1.30 %**	1.50 %	**1.75 %**	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 in the United Kingdom for which an asset ceiling has not been applied, HeidelbergCement has the unconditional entitlement to the pension plan surplus if the plan is wound up.

Development of defined benefit plans

In the 2021 financial year, defined benefit obligations amounting to €4,287.5 million (previous year: 4,417.3) existed in the Group, which were essentially covered by plan assets. In addition, there were direct agreements of €911.2 million (previous year: 957.6). Of this figure, €243.5 million (previous year: 246.7) 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	2020	2021	2020	2021	2020	2021	2020	2021
Balance at 1 January	5,316.6	**5,374.9**	4,922.2	**4,990.8**	27.0	**30.3**	421.4	**414.4**
Current service cost	36.5	**36.5**					36.5	**36.5**
Past service cost	1.7	**-2.8**					1.7	**-2.8**
Plan settlements		**0.7**						**0.7**
Interest cost	111.2	**82.9**			0.5	**0.4**	111.7	**83.3**
Interest income			101.1	**74.9**			-101.1	**-74.9**
Administrative expenses paid by the plan			-7.6	**-4.6**			7.6	**4.6**
Defined benefit costs recognised in profit and loss	149.4	**117.3**	93.5	**70.3**	0.5	**0.4**	56.4	**47.4**
Remeasurements recognised in other comprehensive income	525.2	**-248.3**	421.0	**21.7**	4.3	**-10.4**	108.5	**-280.4**
Employer contributions			120.5	**38.3**			-120.5	**-38.3**
Employee contributions	1.3	**1.3**	1.3	**1.3**				
Benefits paid by the company	-61.3	**-66.9**					-61.3	**-66.9**
Benefits paid by the fund	-274.6	**-262.7**	-274.6	**-262.7**				
Cash flows in the period	-334.6	**-328.3**	-152.8	**-223.1**			-181.8	**-105.2**
Change in consolidation scope	0.4	**2.2**		**1.8**			0.4	**0.4**
Disposal groups	-2.3	**-0.3**					-2.3	**-0.3**
Exchange rate changes	-279.8	**281.2**	-293.1	**309.3**	-1.5	**1.7**	11.8	**-26.4**
Other reconciling items	-281.7	**283.1**	-293.1	**311.1**	-1.5	**1.7**	9.9	**-26.3**
Balance at 31 December	5,374.9	**5,198.7**	4,990.8	**5,170.8**	30.3	**22.0**	414.4	**49.9**
North America	1,420.8	**1,370.4**	1,107.4	**1,130.6**			313.4	**239.8**
United Kingdom	2,905.0	**2,813.6**	3,627.7	**3,760.9**	30.3	**21.9**	-692.4	**-925.4**
Germany	524.2	**512.5**	100.4	**108.7**			423.8	**403.8**
Other countries	524.9	**502.2**	155.3	**170.6**		**0.1**	369.6	**331.7**
Total	5,374.9	**5,198.7**	4,990.8	**5,170.8**	30.3	**22.0**	414.4	**49.9**
Thereof non-current provisions							1,027.4	**908.1**
Thereof current provisions							92.2	**90.5**
Thereof other long-term operating receivables (overfunding of pension schemes)							-705.2	**-948.7**

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	2020	2021
Defined benefit pension plans	5,128.2	**4,955.2**
Plans for health care costs	246.7	**243.5**
Total defined benefit obligation	5,374.9	**5,198.7**
Thereof related to wholly or partly funded plans	4,417.3	**4,287.5**
Thereof related to wholly unfunded plans	957.6	**911.2**

Defined benefit obligation by member groups		
€m	2020	2021
Active members	825.0	**751.0**
Deferred vested members	1,465.0	**1,342.3**
Pensioners	3,084.9	**3,105.4**
Total defined benefit obligation	5,374.9	**5,198.7**

Development in the income statement

Of the total pension expenses of €47.4 million (previous year: 56.4), €39.0 million (previous year: 45.8) are shown in the personnel costs or in other operating expenses, and an amount of €8.4 million (previous year: 10.6) in other financial result.

In 2021, non-recurring special events resulted in a total gain of €2.1 million, which was recognised in the income statement. For example, the Health Reimbursement Arrangement subsidy for certain employees was reduced in the USA, resulting in a past service credit of €4.2 million. In France, some employees are no longer entitled to pension and medical benefits; this resulted in a past service credit of €4.5 million. In addition, the increase in pension benefits due to a change in a collective agreement applicable to certain employees resulted in past service costs of €1.0 million. In Norway, the recognition of prior service periods for new plan members resulted in past service costs of €2.8 million. In the Democratic Republic of Congo, the initial recognition of a health care plan led to past service costs of €1.5 million. All other special events that took place in 2021 had only a limited impact on the financial position.

Remeasurements recognised in other comprehensive income

In the 2021 financial year, total actuarial gains from the defined benefit obligation amounting to €248.3 million (previous year: losses of 525.2) have arisen mainly from the increase in the discount rate on which the actuarial calculation is based.

The actuarial gains and losses can be broken down into effects from the adjustment of financial assumptions resulting in gains of €271.5 million (previous year: loss of 542.6), effects from experience adjustments resulting in a loss of €17.5 million (previous year: gain of 16.4), and effects from changes in demographic assumptions resulting in a loss of €5.7 million (previous year: gain of 1.0), essentially attributable to the adjustment of assumptions relating to an increase in future life expectancy in the USA.

Sensitivity analysis of defined benefit obligation

Changes in the discount rate, pension increase rate, and life expectancy affect the income statement 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		2020	2021
Defined benefit obligation		5,128.2	**4,955.2**
Discount rate	increase by 0.5 %	4,776.2	**4,633.6**
	decrease by 0.5 %	5,512.1	**5,317.1**
Pension increase rate	increase by 0.25 %	5,241.3	**5,063.3**
	decrease by 0.25 %	5,019.4	**4,854.0**
Life expectancy	increase by 1 year	5,362.1	**5,182.4**
	decrease by 1 year	4,895.9	**4,728.1**

Breakdown of plan assets

The plan assets originate primarily from North America with 22 % (previous year: 22 %) and the United Kingdom with 73 % (previous year: 73 %). The plan assets can be divided into the following categories:

Breakdown of plan assets

€m	2020	2021
Cash and cash equivalents	278.8	**322.6**
Equity instruments	530.5	**581.5**
Derivatives	55.0	**254.2**
Nominal government bonds	1,249.0	**986.4**
Nominal corporate bonds	687.6	**712.6**
Index linked bonds	1,561.0	**1,712.8**
Real estate	141.2	**164.1**
Insurance policies	119.5	**114.1**
Other	368.2	**322.5**
Total	4,990.8	**5,170.8**

The actual return on plan assets amounted to €96.6 million (previous year: 522.1).

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 €100.6 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 HeidelbergCement.

As at 31 December 2021, the unrecognised surplus due to the application of the asset ceiling as per IAS 19.64 amounted to €22.0 million (previous year: 30.3). The changes in the plan assets not eligible for offsetting in 2021 are divided into interest income of €0.4 million, changes in the asset ceiling to be shown in other comprehensive income of €-10.4 million, and exchange rate changes of €1.7 million.

Cash flows

HeidelbergCement paid €66.9 million (previous year: 61.3) directly to the pension recipients and €38.3 million (previous year: 120.5) as employer contributions to the plan assets. The decline in employer contributions compared with 2020 is primarily due to an additional one-time contribution of €72.0 million into plan assets in the USA in the previous year as well as a one-time contribution of €9.1 million into the group CTA (Contractual Trust Arrangement) in Germany in 2020. In 2022, HeidelbergCement expects to make pension payments of €55.9 million and employer contributions to the plan assets of €41.9 million.

Over the next ten years, annual benefits of in average €313.5 million are expected to be paid to the pension recipients either in form of direct payments or in form of payments from the plan assets. The average duration of the obligations is 14.1 years (previous year: 14.4).

Multi-employer pension plans

HeidelbergCement 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 €14.6 million (previous year: 16.3) were paid in 2021. 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 2022, contributions of €12.8 million are expected in North America. The withdrawal liability of these plans as at 31 December 2021 would amount to €69.8 million (previous year: 87.9), should HeidelbergCement decide to withdraw. The decrease in the expected withdrawal liability is primarily connected with the divestment of the USA Region West. HeidelbergCement has provisions of €15.4 million (previous year: 12.0) for these liabilities, which are shown under miscellaneous other provisions.

9.14 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 2021	315.1	522.9	540.9	**1,378.9**
Change in consolidation scope		281.6	1.4	**283.0**
Currency translation	24.6	29.8	15.4	**69.8**
Reclassification		-22.6	11.8	**-10.8**
Use	-25.1	-36.2	-104.9	**-166.2**
Release	-15.7	-58.2	-68.2	**-142.1**
Offset	-8.8	-6.6	-13.4	**-28.8**
Addition	76.8	115.4	249.3	**441.5**
31 December 2021	366.9	826.1	632.3	**1,825.3**

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	46.9	58.5	217.0	**322.3**
Maturity > 1 year ≤ 5 years	266.5	250.4	329.0	**845.9**
Maturity > 5 years	53.6	517.2	86.3	**657.1**
	366.9	826.1	632.3	**1,825.3**

Provisions for damages and environmental obligations

Provisions for damages and environmental obligations result from discontinued operations that were transferred to the HeidelbergCement Group as part of the takeover of the Hanson Group in 2007. The obligations are therefore not linked to the continuing operations of the HeidelbergCement 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 2021, the claims amount to €76.9 million (previous year: 80.8), of which €57.2 million (previous year: 64.3) is recorded under other non-current receivables and assets and €19.7 million (previous year: 16.5) under other current operating 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 €579.6 million (previous year: 335.1). The increase in comparison with the previous year results primarily from the reconsolidation of the Permanente Group.

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 €85.0 million (previous year: 62.6).

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 €161.5 million (previous year: 125.2) 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 or relocation of activities. Provisions of €73.2 million (previous year: 101.7) 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 €121.1 million (previous year: 95.5) 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 €71.7 million (previous year: 76.0) had been formed for this purpose.

As at the reporting date, provisions for emission rights of €64.3 million (previous year: 0.7) had been recognised.

Obligations to personnel include the provision for the long-term bonus plan (management and capital market component) of €35.6 million (previous year: 25.5), as well as provisions for multi-employer pension plans amounting to €15.4 million (previous year: 12.0).

Provisions were additionally recognised 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-Cement 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 €11.0 million in other environmental provisions and miscellaneous other provisions. Compounding effects of €5.3 million led to an increase in other environmental provisions and miscellaneous other provisions. Positive interest rate effects of €2.9 million for provisions for damages and environmental obligations are included in the expenses from discontinued operations.

9.15 Liabilities

The other non-current operating liabilities include non-current contract liabilities of €1.3 million (previous year: 3.0), while the other current operating liabilities include current contract liabilities of €127.8 million (previous year: 90.2). The contract liabilities relate to prepayments received by customers for performance obligations not yet fulfilled as at the reporting date. Current contract liabilities of €90.2 million as at 31 December 2020 were fully recognised in revenue in the 2021 financial year.

Trade payables at year end include liabilities of €377.6 million (previous year: 312.1) 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 provides an overview of the maturities of the interest-bearing liabilities.

Maturities of interest-bearing liabilities

€m	≤ 1 year	> 1 ≤ 5 years	> 5 years	Total
31 December 2021				
Bonds payable	806.3	3,383.7	1,979.9	**6,169.9**
Bank loans	474.0	262.4		**736.4**
Miscellaneous other interest-bearing liabilities	45.8	42.3	3.1	**91.2**
Lease liabilities	203.1	432.0	424.0	**1,059.1**
Derivative financial instruments	84.4	0.3	5.1	**89.8**
Non-controlling interests with put options	79.9			**79.9**
	1,693.5	4,120.7	2,412.1	**8,226.3**
31 December 2020				
Bonds payable	577.0	4,134.9	2,996.6	**7,708.5**
Bank loans	181.9	625.2	35.0	**842.1**
Miscellaneous other interest-bearing liabilities	49.6	40.2	2.7	**92.5**
Lease liabilities	244.5	485.9	394.3	**1,124.7**
Derivative financial instruments	59.2	0.9		**60.1**
Non-controlling interests with put options	50.3	25.8		**76.1**
	1,162.5	5,312.9	3,428.6	**9,904.0**

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		31 December 2020		31 December 2021	
€m	Category of IFRS 9[1]	Carrying amount	Fair value	Carrying amount	Fair value
Assets					
Financial investments – fair value through profit or loss	FVTPL	33.6	33.6	**99.4**	**99.4**
Loans and other interest-bearing receivables	AC	189.2	193.8	**169.3**	**179.9**
Trade receivables and other operating receivables – amortised cost	AC	1,564.0	1,564.0	**1,644.0**	**1,644.0**
Trade receivables and other operating receivables – fair value through profit or loss	FVTPL	300.0	300.0	**387.7**	**387.7**
Cash and cash equivalents – amortised cost	AC	2,615.5	2,615.5	**2,667.2**	**2,667.2**
Cash and cash equivalents – fair value through profit or loss	FVTPL	241.7	241.7	**447.9**	**447.9**
Derivatives – hedge accounting	Hedge	39.6	39.6	**29.7**	**29.7**
Derivatives – held for trading	FVTPL	114.4	114.4	**82.1**	**82.1**
Liabilities					
Bonds payable, bank loans and miscellaneous financial liabilities	AC	8,643.1	9,149.9	**6,997.5**	**7,318.3**
Trade payables and miscellaneous operating liabilities	AC	3,599.3	3,599.3	**3,966.8**	**3,966.8**
Derivatives – hedge accounting	Hedge	1.3	1.3	**5.3**	**5.3**
Derivatives – held for trading	FVTPL	58.8	58.8	**84.5**	**84.5**
Non-controlling interests with put options	AC	76.1	76.1	**79.9**	**79.9**

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 HeidelbergCement 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	31 December 2020			31 December 2021		
€m	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Assets						
Financial investments – fair value through profit or loss	12.2		21.4	**14.8**		**84.6**
Trade receivables and other operating receivables – fair value through profit or loss		300.0			**387.7**	
Cash and cash equivalents – fair value through profit or loss	241.7			**447.9**		
Derivatives – hedge accounting		38.5	1.1		**14.6**	**15.1**
Derivatives – held for trading		114.4			**82.1**	
Liabilities						
Derivatives – hedge accounting		0.2	1.1		**4.7**	**0.6**
Derivatives – held for trading		58.8			**84.5**	

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	31 December 2020			31 December 2021		
€m	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Assets						
Loans and other interest-bearing receivables		193.8			**179.9**	
Trade receivables and other operating receivables – amortised cost		1,564.0			**1,644.0**	
Cash and cash equivalents – amortised cost	2,615.5			**2,667.2**		
Liabilities						
Bonds payable, bank loans, and miscellaneous financial liabilities	8,124.1	1,025.8		**6,431.9**	**886.4**	
Trade payables and miscellaneous operating liabilities		3,599.3			**3,966.8**	
Non-controlling interests with put options			76.1			**79.9**

For financial investments at fair value through profit or loss in level 1, the fair value is determined using the market values at the reporting date.

The financial investments at fair value through profit or loss in level 3 include participations on which HeidelbergCement has no significant influence. The increase of €63.2 million in the financial year was mainly due to additions of €37.9 million and remeasurements at fair value through profit or loss amounting to €27.2 million. One participation holds shares in early-stage investments, the measurement of which is carried out on the basis of the IPEV Valuation Guideline for venture capital funds. In the case of this participation, the measurement of its investment portfolio is based on the most recent financing rounds in particular. The fair value measurement of the other participations is mainly carried out using the multiplier method, which determines the proportionate enterprise value based on company-specific variables using EBITDA or revenue multipliers. 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 €0.9 million.

The receivables at fair value through profit or loss 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 at fair value through profit or loss include highly liquid money market funds whose fair value was determined using the market values at the reporting date.

Derivative financial instruments in level 2, both those designated as hedges and those held for trading, are measured at fair value. The derivative financial instruments designated as hedges in level 3 are embedded derivatives from electricity supply contracts. The changes in value during the financial year result 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 €4.1 million (previous year: 3.2). For these items, the fair value always corresponds to the carrying amount.

The fair values of the non-current loans, other non-current operating receivables, bank loans, and other non-current interest-bearing 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.

The trade payables and miscellaneous operating liabilities category cannot be immediately reconciled with the related balance sheet items, as these contain not only financial liabilities but also prepaid expenses and non-financial liabilities of €806.1 million (previous year: 761.0).

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	2020	2021
Financial assets – fair value through other comprehensive income	FVOCI	-131.0	
Financial assets – fair value through profit or loss	FVTPL	-0.6	**17.4**
Financial assets – amortised cost	AC	-36.7	**-95.3**
Derivatives – held for trading	FVTPL	-23.0	**80.5**
Financial liabilities – amortised cost	AC	-10.1	**-1.0**
		-201.4	**1.6**

The measurement of the financial assets at fair value through other comprehensive income in the previous year resulted in a loss on measurement of €131.0 million recognised in equity. 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 €8.8 million (previous year: 33.6), losses of €5.0 million (previous year: 1.7) from the derecognition of operating and interest-bearing receivables, and currency losses of €81.5 million (previous year: 1.4). 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	2020	**2021**
Total interest income	40.1	**29.1**
Total interest expense	-201.9	**-198.1**
	-161.8	**-169.0**

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 2020		31 December 2021	
€m	Nominal value	Fair value [4]	**Nominal value**	**Fair value**
Assets				
Cash flow hedges				
Foreign exchange swaps	5.6	0.0		
Commodity derivatives	21.8	5.9	**32.5**	**20.1**
Fair value hedges				
Interest rate swaps [2]	1,500.0	33.7	**750.0**	**9.6**
Derivatives held for trading				
Currency forwards	29.8	1.0	**37.4**	**1.0**
Foreign exchange swaps	3,785.1	93.4	**4,847.3**	**51.8**
Cross-currency interest rate swaps [1]	83.6	20.0	**34.8**	**10.7**
Commodity derivatives [3]			**459.4**	**18.6**
	5,425.9	154.0	**6,161.5**	**111.8**
Liabilities				
Cash flow hedges				
Currency forwards	5.6	0.0		
Foreign exchange swaps	5.6	0.0		
Commodity derivatives	14.5	1.3	**3.5**	**0.8**
Fair value hedges				
Interest rate swaps [2]			**750.0**	**4.5**
Derivatives held for trading				
Currency forwards	20.7	0.4	**35.5**	**1.2**
Foreign exchange swaps	2,246.9	49.5	**2,957.8**	**24.6**
Cross-currency interest rate swaps [1]	638.3	8.9	**1,358.3**	**38.3**
Commodity derivatives [3]			**464.6**	**20.4**
	2,931.6	60.1	**5,569.8**	**89.8**

1) Nominal values of €34.8 million (previous year: 83.6) relate to cross-currency interest rate swaps with positive fair values of €4.4 million (previous year: 11.7), which are shown on the assets side in the amount of €4.4 million (previous year: 17.0) and on the liabilities side in the amount of €0.0 million (previous year: -5.3) because of the separation into long-term and short-term components of the swaps. Nominal values of €1,358.3 million (previous year: 638.3) relate to cross-currency interest rate swaps with negative fair values of €-32.0 million (previous year: -0.5), which are shown on the assets side in the amount of €6.3 million (previous year: 3.0) and on the liabilities side in the amount of €-38.3 million (previous year: -3.5) because of the separation into long-term and short-term components of the swaps.

2) Nominal values of €750.0 million (previous year: 1,500.0) relate to interest rate swaps with positive fair values of €5.4 million (previous year: 33.7). Nominal values of €750.0 million relate to interest rate swaps with negative fair values of €-0.3 million, which are shown on the assets side in the amount of €4.2 million and on the liabilities side in the amount of €-4.5 million because of the separation into long-term and short-term components of the swaps.

3) The commodity derivatives are mainly CO_2 forwards.

4) Fair values specified with €0.0 million amount to less than €50,000.

The derivatives contracted by HeidelbergCement 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 €111.8 million (previous year: 154.0) and corresponding derivatives with a negative carrying amount of €-89.8 million (previous year: -60.1) were subject to netting agreements. Taking these agreements into consideration, a calculated netting amount of €59.8 million (previous year: 50.5) would result at the reporting date. Accordingly, the derivatives would have positive net carrying amounts of €52.0 million (previous year: 103.5) and negative net carrying amounts of €-30.0 million (previous year: -9.5).

At HeidelbergCement, 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

Currency risks arising from long-term investment projects, which result from future contractual payments in foreign currencies, are hedged by appropriate cash holdings in foreign currencies. The features of the hedging instruments match those of the hedged items. The hedge ratio is 50%. The outstanding payments from the investment projects are expected to be made by 2023. In the case of the foreign exchange swaps and currency forwards that expired in the current financial year, only the spot component of the change in fair value was designated as an element of the cash flow hedge. Changes in the fair value attributable to the forward component are recognised in profit or loss in the other financial result.

As an energy-intensive company, HeidelbergCement 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 2031 through a long-term electricity supply contract. 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, 38% of the short-term and 6% of the long-term planned electricity purchases are hedged. In the case of the Polish electricity hedge, the hedge ratio is 10%. The hedge ratio for the short-term gas oil hedges is 47%. There is no 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	2020		2021	
€m	Currency risk[1]	Electricity price risk	Currency risk	Electricity price risk
Hedging instruments				
Balance sheet items and carrying amounts				
Derivative financial instruments (assets)		1.1		**10.3**
Current derivative financial instruments (assets)	0.0	4.7		**9.6**
Cash and cash equivalents (assets)	11.7		**11.8**	
Other non-current interest-bearing liabilities		-0.9		**-0.6**
Other current interest-bearing liabilities	0.0	-0.4		
Change in fair value to measure the ineffectiveness in the reporting period	-0.8	7.0	**-0.3**	**34.1**
Hedged items				
Change to measure the ineffectiveness	0.8	-7.0	**0.3**	**-34.2**
Cash flow hedge reserve	-3.2	-4.8	**-1.6**	**-19.5**

1) Fair values specified with €0.0 million amount to less than €50,000.

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	2020	2021
Balance at 1 January		0.7	**5.7**
Changes in fair values	Currency risk	0.6	**-0.3**
Changes in fair values	Electricity price risk	-7.0	**34.1**
Gains or losses recognised in other comprehensive income		-6.5	**33.8**
Reclassification to profit or loss (material costs)	Electricity price risk	14.0	**-19.4**
Reclassification to cost of property, plant and equipment	Currency risk	0.1	**-1.3**
Income taxes		-2.1	**-2.6**
Gains / losses arising from equity accounted investments		-0.5	**1.6**
Balance at 31 December		5.7	**17.8**

Fair value hedges

The interest rate swaps open at the reporting date hedge the interest rate risks of two fixed interest-bearing Eurobonds each with a value of €750 million that mature in 2022 and 2027 respectively. The weighted average hedge rate of the outstanding interest rate swaps is the 6-month EURIBOR plus a margin of 0.68 %. 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 %.

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	2020			2021		
€m	Hedging instrument interest rate swaps	Hedged item bond	Hedge ineffectiveness recognised in profit or loss	Hedging instrument interest rate swaps	Hedged item bond	Hedge ineffectiveness recognised in profit or loss
Balance sheet items and carrying amount						
Derivative financial instruments (assets)	24.3					
Current derivative financial instruments (assets)	9.3			9.6		
Other non-current interest-bearing liabilities				-4.5		
Bonds payable (liabilities)		-1,529.0			-1,500.5	
thereof cumulated changes in fair value		-24.6			28.5	
Change in fair value to measure the ineffectiveness in the reporting period	23.7	-24.6		-28.9	28.5	
Profit or loss item and value of ineffectiveness						
Other financial result			-0.9			-0.4

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 €0.4 million (previous year: 0.3) 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, HeidelbergCement 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

HeidelbergCement 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 only concluding contracts for financial assets and derivative financial instruments with partners that meet our credit rating requirements.

Credit rating

The rating agencies Moody's and Standard & Poor's assess the creditworthiness of HeidelbergCement as Baa2/P-2 (stable outlook) and BBB/A-2 (stable outlook) as at the end of 2021. Any potential downgrading of the ratings awarded by the rating agencies could have a negative impact on HeidelbergCement'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. HeidelbergCement 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 HeidelbergCement's 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, HeidelbergCement 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. For the purposes of the calculation, the receivables are aggregated according to their geographical position, as the customer segments show similar credit risk features for each country. The determination itself takes place at the individual company level.

The trade receivables are divided into the risk classes "not credit-impaired" or "credit-impaired". For the calculation of the expected credit loss rate of the not credit-impaired risk class, historical loss rates are taken into account. These are based on revenue and derecognition of receivables over the last three years. They are 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. For this purpose, the expected real growth of the gross domestic product of the countries in which the customers are domiciled is taken into account. For the credit-impaired risk class, credit default rates are calculated for the expected credit loss, which are essentially based on historical default probabilities and due terms. The calculated loss rates are thus derived from the ratio of all loss allowances posted per individual company to the gross carrying amount.

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 2021 amount to €256.3 million (previous year: 298.6).

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 loss.

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.

Trade receivables by risk class

€m	Loss rate	Gross carrying amount	Loss allowance	Total
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**
31 December 2020				
Not credit-impaired	0.3 %	1,171.0	-3.4	**1,167.7**
Credit-impaired	51.5 %	195.3	-100.5	**94.8**
		1,366.3	-103.9	**1,262.5**

The loss allowances on trade receivables have developed as follows:

Loss allowances on trade receivables

€m	2020	2021
Loss allowances at 1 January	110.5	**103.9**
Addition	39.7	**23.3**
Reversal	-15.8	**-20.1**
Use	-21.4	**-9.6**
Currency translation and other adjustments	-9.1	**3.0**
Loss allowances at 31 December	103.9	**100.6**

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. HeidelbergCement regards this credit risk as insignificant.

HeidelbergCement 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. Internal credit assessments taking into account both quantitative and qualitative information are used to calculate the default probabilities. The internal classifications are then reconciled with the rating classes of external rating agencies and the resulting default probabilities. These default probabilities are 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 granted securities are taken into consideration in the calculation of the loss rate, resulting in a low default risk overall. The securities granted as at the reporting date amount to €55.1 million (previous year: 56.0) and mainly comprise liens and guarantees. 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 default on the financial asset at the reporting date is compared with the default risk at the time of initial recognition. In particular, the following indicators are taken into account in this assessment in addition to the local conditions, which vary from country to country:
- Credit rating of the debtor in accordance with HeidelbergCement's internal assessments and those of external rating agencies
- Actual or expected significant adverse changes in the business, financial, or economic situation that are likely to lead to a significant change in the debtor's ability to fulfil its obligations.

Independent of the above analysis, a significant increase in the credit risk is assumed if a debtor is more than 30 days overdue with a contractual payment.

As regards the determination of a default event, a financial asset is classified as credit-impaired if an objective event has occurred, as in the following examples:
- Contractual payment is more than 90 days overdue
- Significant financial difficulties on the part of the debtor
- Restructuring of the receivable because of the debtor's financial difficulties (e.g. extension agreement)
- The debtor is likely to enter bankruptcy or other financial reorganisation.

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 at 31 December 2021	206.8	201.0	**407.8**
Loss allowances 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 at 31 December 2021	-37.6	-6.5	**-44.0**
Carrying amount at 31 December 2021	169.3	194.5	**363.8**
Gross carrying amount at 31 December 2020	219.8	308.1	**527.9**
Loss allowances at 1 January 2020	-22.1	-3.5	**-25.7**
Changes	-8.4	-3.5	**-11.9**
Currency translation	0.0	0.4	**0.3**
Loss allowances at 31 December 2020	-30.6	-6.6	**-37.2**
Carrying amount at 31 December 2020	189.2	301.5	**490.7**

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 rate	Gross carrying amount	Loss allowance	Total
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**
31 December 2020				
Low risk	0.2 %	461.0	-0.8	**460.2**
Default event	54.4 %	66.9	-36.4	**30.5**
		527.9	-37.2	**490.7**

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, HeidelbergCement 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. In order to reduce default risks, the hedging transactions are generally concluded only with leading financial institutions that meet our credit rating requirements. 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 HeidelbergCement's liquidity, the Group maintains sufficient cash and cash equivalents as well as extensive 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, HeidelbergCement still has as yet undrawn, confirmed credit lines of €2.9 billion available in order to secure liquidity, in addition to available cash and cash equivalents. HeidelbergCement 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 2021, none of the commercial papers issued by HeidelbergCement AG were outstanding.

As the financial contracts of HeidelbergCement 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 overview below shows how the cash flows of the liabilities as at 31 December 2021 affect the Group's liquidity position. The overview describes the progress of the following:
- Undiscounted repayments and interest payments for bonds payable,
- Undiscounted liabilities and interest payments to banks,
- Lease payments on a gross basis (before deducting financing costs),
- Undiscounted other interest-bearing liabilities,
- Undiscounted contractually agreed payments for derivative financial instruments, as a total for the year.

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 interest-bearing 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 interest-bearing 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

Cash flows of interest-bearing liabilities and derivative financial instruments

€m	Carrying amount 31 Dec. 2020	Cash flows 2021	Cash flows 2022	Cash flows 2023	Cash flows 2024	Cash flows ≥ 2025
Bonds payable	**7,708.5**	635.9	869.7	1,115.9	1,493.4	4,147.8
Bank loans	**842.1**	189.9	412.5	208.2	25.8	46.1
Lease liabilities	**1,124.7**	269.0	209.4	150.8	107.8	659.1
Miscellaneous other interest-bearing liabilities	**92.5**	51.6	13.5	12.0	7.7	7.9
Derivatives with positive fair value						
Cash flow hedges	**5.9**	16.4				13.0
Fair value hedges	**33.7**	4.2	4.2	4.2	4.2	12.6
Derivatives held for trading	**114.4**	3,787.6	34.8	5.9		
Derivatives with negative fair value						
Cash flow hedges	**1.3**	14.1	8.3	2.4	2.4	2.4
Derivatives held for trading	**58.8**	2,287.1	10.8	640.7		

The inflow of liquidity amounting to €1,517.1 million (previous year: 802.1) from cross-currency interest rate swaps and €8,444.6 million (previous year: 6,088.1) arising from current foreign exchange transactions and other derivatives have not been taken into account in the table.

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. The Managing Board and Supervisory Board of HeidelbergCement AG have decided against hedging the variable interest-bearing financial instruments. This strategy is based on the historically strong correlation between increasing profits and rising interest rates. 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 50 basis points higher or lower on 31 December 2021, the net interest cost of the HeidelbergCement Group taking into account the variable interest-bearing assets and liabilities would have fallen by €2.0 million (previous year: 4.0) or risen by €3.0 million (previous year: 4.9).

Currency risk

HeidelbergCement's 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. 2020	**31 Dec. 2021**	31 Dec. 2020	**31 Dec. 2021**
USD/ILS		**0.4**		**-0.4**
USD/CAD		**0.4**		**-0.4**
USD/LRD		**0.9**		**-0.9**
USD/TZS	3.2	**3.0**	-3.2	**-3.0**

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. However, if necessary, HeidelbergCement can also hedge this foreign currency risk.

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. 2020	**31 Dec. 2021**
Cash, derivative financial instruments and short-term financial investments	3,011.2	**3,226.9**
Interest-bearing liabilities	9,904.0	**8,226.3**
Net debt	6,892.8	**4,999.4**
Result from current operations before depreciation and amortisation (RCOBD)	3,707.1	**3,874.7**
Leverage ratio	1.86	**1.29**

In connection with credit agreements, we agreed to comply with various financial covenants, which were all met in the reporting period. The most important key financial ratios are the ratio of net debt to EBITDA and the interest coverage ratio. The EBITDA key figure is derived from the credit agreements and therefore differs from the result from current operations before depreciation and amortisation key figure as it takes elements of the additional ordinary result and effects from first-time consolidations and deconsolidations into consideration. Furthermore, no non-current derivative financial instruments with a positive fair value are taken into account in the net debt key figure. Within the context of the Group planning, compliance with the covenants is monitored consistently, with notifications issued to the creditors on a quarterly basis. In the event of a breach of the covenants, the creditors could, under certain conditions, accelerate corresponding loans irrespective of the contractually agreed terms.

11.2 Contingent liabilities

As at the reporting date, contingent liabilities amounted to €176.8 million (previous year: 171.9) 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 HeidelbergCement's 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 €715.7 million (previous year: 556.1), of which €187.5 million relates to the construction of the new cement plant in Mitchell, Indiana, USA. Future cash outflows of €56.3 million (previous year: 54.5) 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 2021, Mr. Ludwig Merckle, Ulm, holds via Spohn Cement Beteiligungen GmbH, Zossen, a company under his control, 26.73 % of the voting rights in HeidelbergCement AG. In the 2021 financial year, HeidelbergCement AG provided services with a net amount of €322.0 thousand (previous year: 244.6) to PHOENIX Pharmahandel GmbH & Co KG, Mannheim, a related company of Mr. Ludwig Merckle. In addition, net expenses of €113.2 thousand (previous year: 91.0) for purchased services were incurred.

Revenue and other sales with joint ventures in the HeidelbergCement Group amounted to €62.0 million (previous year: 47.3). Raw materials, goods, and other services with a value of €349.0 million (previous year: 282.6) were procured from these joint ventures. A total of €10.3 million (previous year: 9.6) was generated in financial and other services. Receivables of €97.9 million (previous year: 80.9) and liabilities of €42.9 million (previous year: 25.1) exist in connection with these activities and financial transactions. In addition, capital increases of €1.0 million (previous year: 1.6) were carried out for joint ventures. As in the previous year, no repayments of capital were made from joint ventures to the parent company. In the 2021 financial year, guarantees of €0.2 million (previous year: 0.6) were outstanding to joint ventures.

Business transactions with associates include revenue and other sales amounting to €96.6 million (previous year: 88.4), the procurement of goods and services amounting to €20.7 million (previous year: 21.4), and services provided amounting to €1.1 million (previous year: 1.2). Receivables of €39.0 million (previous year: 39.6) and liabilities of €12.5 million (previous year: 14.5) exist in connection with these activities and financial transactions. Capital increases and contributions in kind made to associates amounted to €0.2 million (previous year: 0.2). As in the previous year, no repayments of capital were made from associates to the parent company in the 2021 financial year. Guarantees of €0.6 million (previous year: 0.2) were outstanding to associates in the 2021 financial year.

Receivables of €8.7 million (previous year: 34.9) and liabilities of €16.3 million (previous year: 18.9) existed in connection with transactions with non-consolidated subsidiaries.

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 creation of two functional Managing Board responsibilities to €6.8 million (previous year: 6.2). The sum of short-term variable remuneration elements changed in comparison with the previous year to €10.5 million (previous year: 10.0). It consisted of the annual bonus in the amount of €10.6 million (previous year: 10.1), of which €0.1 million (previous year: 0.1) 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 (Group share of profit 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 Group share of profit for the year with the multiplier of the CO_2 component.

Other remuneration elements totalled €4.7 million (previous year: 1.3). In 2021, they consisted of payments for committee activities at subsidiaries of HeidelbergCement AG, contribution of private pension benefits (cash allowance), a severance payment for Dr. Näger and an associated advance payment for the long-term bonus plan 2021–2023/2024, and taxable fringe benefits. These included, in particular, the provision of company cars and driving services, mobile phones and communication tools, the reimbursement of expenses, insurance benefits, bearing the costs of flights home, school fees, and company-related relocations as well as assignment-related benefits.

The members of the Managing Board are participating in the long-term bonus plan 2021–2023/24, granted in 2021. The target values for the plan, rounded to the nearest €'000, are €9,906,000.

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 €4,921,000 for the management component and €4,985,000 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 €57.00. This equates to 87,457 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 €4,987,000.

The total remuneration pursuant to HGB amounted to €30.4 million (previous year: 26.5).

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 €4.2 million (previous year: 3.8). The present values of the defined benefit obligation amounted to €40.7 million (previous year: 36.8).

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 €-1,316,000 for the Members of the Managing Board (previous year: 717,000).

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 €-1.3 million (previous year: 0.7). The expenses recognized relating to the long-term management components came to €12.7 million (previous year: 5.9). Provisions for capital market components amounted to €0.3 million, and for management components they amounted to €22.4 million.

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 HeidelbergCement 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 €37.4 million in 2021 (previous year: 28.2) as represented in the following table.

Total remuneration of the Managing Board in accordance with IAS 24

€m	2020	2021
Short-term employee benefits (fixed remuneration, short-term variable remuneration elements, other remuneration elements)	17.5	**18.5**
Post-employment benefits (allocations to provisions for pensions – service cost including prior positions)	4.0	**4.5**
Redundancy payments for members of the Managing Board who stepped down in the reporting year		**3.0**
Other long-term benefits (expenses related to the LTIP management components including prior positions)	5.9	**12.7**
Share-based payment (expenses related to the LTIP capital market components including prior positions)	0.7	**-1.3**
Total	28.2	**37.4**

Payments to former members of the Managing Board and their surviving dependents amounted to €8.7 million in the financial year (previous year: 5.4). Provisions for pension obligations to former members of the Managing Board amounted to €78.7 million (previous year: 69.3).

The total Supervisory Board remuneration (excluding value added tax) for the 2021 financial year amounted to €1,813,000 (previous year: 1,651,000). Employee representatives of the Supervisory Board who are employees of the HeidelbergCement 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 **www.heidelbergcement.com under Company/Corporate Governance/ Declaration of Corporate Governance**.

11.7 Auditor's fees

The auditor PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft received fees of €3.8 million (previous year: 3.7) in the financial year.

Auditor's fees

€m	2020	2021
Audit services [1]	3.5	**3.6**
Other assurance services	0.1	**0.2**
Tax services	0.1	**0.0**
	3.7	**3.8**

1) Thereof for the previous year: 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 and tax advisory services. The fee for the other assurance services 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 2021 financial year

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 launched in 2021 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, HeidelbergCement announced on 13 January 2022 that it would continue its share buyback programme earlier than originally planned. The second tranche of €300 to €350 million started on 7 March 2022 and is scheduled to be completed by 31 August 2022 at the latest.

At the end of February, the global political situation had changed drastically due to the Russian attack on Ukraine. Due to the very dynamic development of the situation, it is currently not possible to make a reliable forecast about the dimension of the impact on our business activity. The Managing Board expects smaller direct impacts on HeidelbergCement's business activity. HeidelbergCement is no longer represented in Ukraine since the disposal of its activities in 2019. In Russia, we operate three cement plants that supply their respective local markets and do not export. The contribution of our Russian activities to Group revenue amounts to around 1 %. However, negative impacts on the assets, financial, and earnings position of the 2022 financial year can be expected indirectly as a result of the very high volatility on the energy markets, particularly in Europe, caused by the crisis.

11.9 Approval by the Supervisory Board

The consolidated financial statements were prepared by the Managing Board and adopted on 23 March 2022. They were then submitted to the Supervisory Board for approval.

List of shareholdings of HeidelbergCement Group and HeidelbergCement AG as at 31 December 2021 (section 313(2), resp. section 285 no. 11 of the German Commercial Code (HGB))

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	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	2020	6.8	0.0
Amey Group Limited (The)	Maidenhead, GB		100.00	2020	14.3	0.0
Amey Roadstone International Limited	Maidenhead, GB		100.00	2020	0.1	0.0
Appleby Group Limited	Maidenhead, GB		100.00	2020	30.1	0.8
ARC Aggregates Limited	Maidenhead, GB		100.00	2020	3.6	0.0
ARC Building Limited	Maidenhead, GB		100.00	2020	-20.2	0.0
ARC Concrete (Anglia) Limited	Maidenhead, GB		100.00	2020	0.0	0.0
ARC Concrete Limited	Maidenhead, GB		100.00	2020	0.0	0.0
ARC Holdings Limited	Maidenhead, GB		100.00	2020	0.1	0.0
ARC Land Holdings Limited	Maidenhead, GB		100.00	2020	0.3	0.0
ARC Limited	Maidenhead, GB		100.00	2020	0.0	0.0
ARC Property Investments Limited	Maidenhead, GB		100.00	2020	43.7	0.0
ARC Slimline Limited	Maidenhead, GB		100.00	2020	-3.6	0.0
ARC South Wales Limited	Maidenhead, GB		100.00	2020	0.0	0.0
ARC South Wales Mortar Limited	Maidenhead, GB		100.00	2020	0.0	0.0
ARC South Wales Quarries Limited	Maidenhead, GB		100.00	2020	0.0	0.0
ARC South Wales Surfacing Limited	Maidenhead, GB		100.00	2020	0.4	0.0
Attendflower Limited	Maidenhead, GB		100.00	2020	0.0	0.0
B.V. Betoncentrale De Schelde	Bergen op Zoom, NL		66.67	2020	-0.1	0.2
B.V. Betonmortelcentrale 'BEMA'	Alkmaar, NL		66.67	2020	-1.5	-0.2
Banbury Alton Limited	Maidenhead, GB		100.00	2020	-0.3	0.0
Beazer Limited	Maidenhead, GB		100.00	2020	11.3	3.3
Beforebeam Limited	Maidenhead, GB		100.00	2020	447.6	0.0
Beforeblend Limited	Maidenhead, GB		100.00	2020	227.9	0.0
Berec Holdings B.V.	's-Hertogenbosch, NL		100.00	2020	59.1	104.9
Béton Contrôle de l'Adour S.a.s. [5]	Bayonne, FR		35.99	2020	2.0	0.0
Béton Contrôle du Pays Basque S.a.s.	Bayonne, FR		59.98	2020	2.6	-0.2
Betontir S.p.A.	Bergamo, IT		100.00	2020	1.1	1.0
Birchwood Concrete Products Limited	Maidenhead, GB		100.00	2020	178.3	0.0
Birchwood Omnia Limited	Maidenhead, GB		100.00	2020	1,251.6	99.4
BravoEnergy S.r.l.	Bergamo, IT		100.00	2020	0.1	-0.2
British Agricultural Services Limited	Maidenhead, GB		100.00	2020	407.3	0.1
British Ever Ready Limited	Maidenhead, GB		100.00	2020	29.8	0.0
Bulldog Company Limited	St. Peter Port, GG		100.00	2020	38.8	0.0
C.T.G. S.R.L.	Bergamo, IT		100.00	2020	0.3	0.0
Calcestruzzi S.p.A.	Bergamo, IT		100.00	2020	2.3	-26.1
Calumite Limited	Maidenhead, GB		51.00	2020	2.8	1.7
Castle Building Products Limited	Maidenhead, GB		100.00	2020	-0.5	0.0
Castle Cement (Chatburn) Limited	Maidenhead, GB		100.00	2020	0.2	0.0
Castle Cement (Clyde) Limited	Maidenhead, GB		100.00	2020	0.1	0.0
Castle Cement (Ketton) Limited	Maidenhead, GB		100.00	2020	25.2	0.0
Castle Cement (Padeswood) Limited	Maidenhead, GB		100.00	2020	6.7	0.0
Castle Cement (Pitstone) Limited	Maidenhead, GB		100.00	2020	10.9	0.0
Castle Cement (Ribblesdale) Limited	Maidenhead, GB		100.00	2020	26.3	0.0
Castle Cement Limited	Maidenhead, GB		100.00	2020	260.7	-33.4

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
Castle Lime Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Castle Pension Scheme Trustees Limited	Maidenhead, GB		100.00	2020	0.0	0.0
CBR Baltic B.V.	's-Hertogenbosch, NL		100.00	2020	209.0	12.7
Cementrum I B.V.	's-Hertogenbosch, NL		100.00	2020	169.5	9.8
Cemitaly S.p.A.	Bergamo, IT		100.00	2020	4.9	-14.6
Centro Administrativo y de Servicios de Malaga S.A.	Málaga, ES		99.94	2020	-0.9	-0.6
Cetramaris S.a.s	La Rochelle, FR		70.00	2020	0.8	0.1
CGF Capital B.V.	's-Hertogenbosch, NL		100.00	2020	0.1	233.5
CHB Group Limited	Maidenhead, GB		100.00	2020	751.7	0.0
CHB P H R Limited	Maidenhead, GB		100.00	2020	15.1	0.0
CHB Products Limited	Maidenhead, GB		100.00	2020	2,237.7	0.0
Chemical Manufacture and Refining Limited	Maidenhead, GB		100.00	2020	6.1	0.0
Ciment du Littoral S.a.s.	Bassens, FR		100.00	2020	-5.1	-1.0
Ciments Calcia S.a.s.	Guerville, FR		100.00	2020	1,016.6	3.4
Ciments Français S.a.s.	Guerville, FR		100.00	2020	1,121.4	-136.9
Ciminter S.A.	Strassen, LU		100.00	2020	48.6	0.3
City of London Heliport Limited	Maidenhead, GB		55.56	2020	-2.0	0.0
Civil and Marine (Holdings) Limited	Maidenhead, GB		100.00	2020	34.3	0.8
Civil and Marine Limited	Maidenhead, GB		100.00	2020	590.5	14.1
Civil and Marine Slag Cement Limited	Maidenhead, GB		100.00	2020	68.2	0.0
Claughton Manor Brick Limited (The)	Maidenhead, GB		100.00	2020	0.2	0.0
Codesib S.a.s.	Guerville, FR		100.00	2020	-51.7	4.4
Compagnie Financière et de Participations S.a.s.	Guerville, FR		100.00	2020	27.4	0.9
Compagnie pour l'Investissement Financier en Inde S.a.s.	Guerville, FR		100.00	2020	-1.3	-0.8
Compañía General de Canteras, S.A.	Málaga, ES		99.35	2020	23.8	0.1
Conbloc Limited	Maidenhead, GB		100.00	2020	-0.1	0.0
Concrete Italia S.r.l.	Brescia, IT		51.00	2020	-0.2	-0.2
Contiga Holding GmbH	Flensburg, DE		100.00	2020	4.7	0.6
Contiga Tinglev Montage GmbH	Altlandsberg, DE		100.00	2020	0.0	0.0
Creative Land Developers Limited [5]	Maidenhead, GB		50.00	2020	-0.4	0.0
Cromhall Quarries, Limited	Maidenhead, GB		100.00	2020	0.1	0.0
Cumbrian Industrials Limited	Maidenhead, GB		100.00	2020	8.4	0.0
Delmorgal Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Desimpel Brick Limited	Maidenhead, GB		100.00	2020	2.9	0.0
Devon Concrete Works, Limited	Maidenhead, GB		100.00	2020	0.1	0.0
Dragages du Pont de St Leger S.a.s.	St Léger, FR		60.00	2020	5.3	0.9
Dragages Transports & Travaux Maritimes S.a.s.	La Rochelle, FR		100.00	2020	18.4	2.1
DUPAMIJ Holding GmbH i.L. [4]	Kalkar, DE		100.00	2020	0.1	-0.1
E & S Retail Limited	Maidenhead, GB		100.00	2020	0.0	0.0
E Sub Limited	Maidenhead, GB		100.00	2020	6.8	0.0
Effectengage Limited	Maidenhead, GB		100.00	2020	296.7	1.1
ENCI B.V.	's-Hertogenbosch, NL		100.00	2020	85.5	31.2
ENCI Holding N.V.	's-Hertogenbosch, NL		100.00	2020	0.0	0.5
Ensign Park Limited [5]	Maidenhead, GB		50.00	2020	-1.8	0.0
Essroc Netherlands Coöperatief U.A.	's-Hertogenbosch, NL		100.00	2020	215.2	0.0
Eurarco France S.A.	Le Crotoy, FR		64.98	2020	7.7	0.8
F.C. Precast Concrete Limited	Maidenhead, GB		100.00	2020	0.1	0.0
Ferrersand Aggregates Limited	Maidenhead, GB		100.00	2020	1.6	0.0
Fruitbat Company	Maidenhead, GB		100.00	2020	0.0	0.0
Fulber Limited	St. Peter Port, GG		100.00	2020	240.6	0.0
Granulats de la Drôme S.a.s.	Saint-Jean-de-Védas, FR		100.00	2020	2.9	-0.4

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
Granulats de Lahontan	Guerville, FR		51.00	2020	2.1	-0.3
Granulats Ouest - GO S.a.s.	Saint-Herblain, FR		100.00	2020	3.4	0.3
Greenwoods (St. Ives) Limited	Maidenhead, GB		100.00	2020	2.0	0.0
GSM S.a.s.	Guerville Cedex, FR		100.00	2020	164.2	15.1
Guidelink	Maidenhead, GB		100.00	2020	0.1	0.0
Habfield Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Hanson (BB) Limited	Maidenhead, GB		100.00	2020	0.5	0.0
Hanson (BBIN02) Limited	Maidenhead, GB		100.00	2020	29.1	0.0
Hanson (CGF) (No.1) Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Hanson (CGF) (No2) Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Hanson (CGF) Finance Limited	Maidenhead, GB		100.00	2020	151.1	-0.7
Hanson (CGF) Holdings Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Hanson (ER - No 10) Limited	Maidenhead, GB		100.00	2020	284.5	0.0
Hanson (ER - No 5) Limited	Maidenhead, GB		100.00	2020	444.4	0.0
Hanson (F) Limited	Maidenhead, GB		100.00	2020	5.6	0.0
Hanson (FH) Limited	Maidenhead, GB		100.00	2020	3.7	0.0
Hanson (FP) Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Hanson (LBC) Limited	Maidenhead, GB		100.00	2020	24.6	0.0
Hanson (MR) Limited	Maidenhead, GB		100.00	2020	2,456.4	0.0
Hanson (NAIL) Limited	Maidenhead, GB		100.00	2020	6.0	0.0
Hanson (RBMC) Limited	Maidenhead, GB		100.00	2020	6.7	0.0
Hanson (SH) Limited	Maidenhead, GB		100.00	2020	65.0	1.4
Hanson Aggregates (North) Limited	Maidenhead, GB		100.00	2020	45.1	0.0
Hanson Aggregates Limited	Maidenhead, GB		100.00	2020	91.6	0.0
Hanson Aggregates Marine Limited	Maidenhead, GB		100.00	2020	149.7	4.7
Hanson Aggregates South Wales Holdings Limited	Maidenhead, GB		100.00	2020	7.6	0.0
Hanson Aggregates South Wales Limited	Maidenhead, GB		100.00	2020	43.4	0.0
Hanson Aggregates UK Limited	Maidenhead, GB		100.00	2020	2,237.9	0.0
Hanson America Holdings (1) Limited	Maidenhead, GB		100.00	2020	1,043.4	0.0
Hanson America Holdings (2) Limited	Maidenhead, GB		100.00	2020	10.5	0.0
Hanson America Holdings (3) Limited	Maidenhead, GB		100.00	2020	1,403.8	881.4
Hanson America Holdings (4) Limited	Maidenhead, GB		100.00	2020	132.0	2.7
Hanson Aruba Limited	St. Peter Port, GG		100.00	2020	1,728.0	0.0
Hanson Bath and Portland Stone Limited	Maidenhead, GB		100.00	2020	-2.4	0.0
Hanson Batteries Limited	Maidenhead, GB		100.00	2020	51.7	0.0
Hanson Blocks North Limited	Maidenhead, GB		100.00	2020	14.8	0.0
Hanson Brick Ltd	Maidenhead, GB		100.00	2020	0.2	0.0
Hanson Building Materials Europe Limited	Maidenhead, GB		100.00	2020	631.8	4.1
Hanson Building Materials Limited	Maidenhead, GB		100.00	2020	3,546.4	-3.8
Hanson Building Products (2003) Limited	Maidenhead, GB		100.00	2020	211.7	0.0
Hanson Building Products Limited	St. Helier, JE		100.00	2020	0.1	0.0
Hanson Canada Limited	Maidenhead, GB		100.00	2020	1.0	0.0
Hanson Clay Products Limited	Maidenhead, GB		100.00	2020	17.0	0.0
Hanson Concrete Products Limited	Maidenhead, GB		100.00	2020	58.7	0.0
Hanson Crewing Services Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Hanson Devon Designated Activity Company	Shannon, IE		100.00	2020	4,501.7	-0.1
Hanson Facing Bricks Limited	Maidenhead, GB		100.00	2020	277.5	0.0
Hanson Finance (2003) Limited	Maidenhead, GB		100.00	2020	490.8	3.1
Hanson Finance Limited	Maidenhead, GB		100.00	2020	677.9	-5.4
Hanson Financial Services Limited	Maidenhead, GB		100.00	2020	224.9	0.0
Hanson FP Holdings B.V.	's-Hertogenbosch, NL		100.00	2020	406.9	0.0

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
Hanson Funding (G) Limited	Maidenhead, GB		100.00	2020	194.4	0.0
Hanson H4 Limited	Maidenhead, GB		100.00	2020	9.8	0.0
Hanson H5	Maidenhead, GB		100.00	2020	0.1	0.0
Hanson Hedging (Dollars) (1) Limited	Maidenhead, GB		100.00	2020	0.3	0.0
Hanson Hispania Hormigones SL	Málaga, ES		99.99	2020	-0.4	0.2
Hanson Hispania, S.A.U.	Madrid, ES		100.00	2020	67.1	-3.4
Hanson Holdings (1) Limited	Maidenhead, GB		100.00	2020	5,617.2	130.1
Hanson Holdings (2) Limited	Maidenhead, GB		100.00	2020	1,155.2	10.4
Hanson Holdings (3) Limited	Maidenhead, GB		100.00	2020	794.9	-76.3
Hanson Holdings Limited	Maidenhead, GB		100.00	2020	3,866.1	2,784.4
Hanson Industrial (Engineering Holdings) Limited	Maidenhead, GB		100.00	2020	6.1	0.0
Hanson Industrial Limited	Maidenhead, GB		100.00	2020	178.2	2.8
Hanson International Holdings Limited	Maidenhead, GB		100.00	2020	2,640.5	160.0
Hanson Island Management Limited	St. Peter Port, GG		100.00	2020	-1.0	-0.1
Hanson Land Development Limited	Maidenhead, GB		100.00	2020	-33.0	0.0
Hanson Limited	Maidenhead, GB		100.00	2020	9,308.4	1,842.0
Hanson Marine Holdings Limited	Maidenhead, GB		100.00	2020	1.4	0.3
Hanson Marine Limited	Maidenhead, GB		100.00	2020	35.1	0.7
Hanson Overseas Corporation Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Hanson Overseas Holdings Limited	Maidenhead, GB		100.00	2020	4,931.0	1,210.0
Hanson Packed Products Limited	Maidenhead, GB		100.00	2020	288.0	6.6
Hanson Peabody Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Hanson Pioneer España, S.L.U.	Madrid, ES		100.00	2020	338.1	5.9
Hanson Quarry Products Europe Limited	Maidenhead, GB		100.00	2020	1,709.5	-58.8
Hanson Quarry Products Holdings Limited	Maidenhead, GB		100.00	2020	46.9	0.0
Hanson Quarry Products Trade Finance Limited	Maidenhead, GB		100.00	2020	3.3	0.0
Hanson Quarry Products Transport Limited	Maidenhead, GB		100.00	2020	0.1	0.0
Hanson Quarry Products Ventures Limited	Maidenhead, GB		100.00	2020	52.6	-0.6
Hanson Retail Limited	Maidenhead, GB		100.00	2020	438.0	-0.1
Hanson Ship Management Ltd	St. Peter Port, GG		100.00	2020	-0.8	-0.1
Hanson Thermalite Limited	Maidenhead, GB		100.00	2020	46.6	0.0
Hanson TIS Holdings Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Hanson TIS Limited	Maidenhead, GB		100.00	2020	-2.9	0.0
Hanson Trust Limited	Maidenhead, GB		100.00	2020	108.9	0.0
Hanson Trustees Limited	Maidenhead, GB		100.00	2020	-1.6	0.0
Harrisons Limeworks Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Hartsholme Property Limited	Maidenhead, GB		100.00	2020	0.1	0.0
HB Hotels Limited	Maidenhead, GB		100.00	2020	-0.6	0.0
HC Asia Holding GmbH	Heidelberg, DE	100.00	100.00	2020	84.0	0.0
HC Fuels Limited	Maidenhead, GB		100.00	2020	10.1	0.1
HC Green Trading Limited	Żebbuġ, MT		100.00	2020	0.0	1.2
HC Hanson Holding B.V.	's-Hertogenbosch, NL		100.00	2020	375.8	49.3
HC Trading B.V.	's-Hertogenbosch, NL		100.00	2020	-2.3	-0.3
HC Trading GmbH [7]	Heidelberg, DE		100.00	2020	0.0	0.0
HC Trading Malta Limited	Żebbuġ, MT		100.00	2020	0.0	7.9
HCT Holding Malta Limited	Żebbuġ, MT	100.00	100.00	2020	72.8	11.1
HDigital GmbH [9]	Heidelberg, DE		100.00	-	-	-
HeidelbergCement BP Limited	Maidenhead, GB		100.00	2020	0.1	0.0
HeidelbergCement Canada Holding Limited	Maidenhead, GB		100.00	2020	2,893.4	78.4
HeidelbergCement Central Europe East Holding B.V.	's-Hertogenbosch, NL		100.00	2020	1,749.4	112.5
HeidelbergCement Euro I Limited	Maidenhead, GB		100.00	2020	0.0	11.4

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
HeidelbergCement Euro II Limited	Maidenhead, GB		100.00	2020	3,464.7	53.6
HeidelbergCement Euro III Limited	Maidenhead, GB		100.00	2020	868.1	17.2
HeidelbergCement Finance Luxembourg S.A.	Strassen, LU		100.00	2020	33.2	44.5
HeidelbergCement France S.A.S.	Guerville, FR		100.00	2020	2,474.4	-23.0
HeidelbergCement Grundstücksgesellschaft mbH & Co. KG [7]	Heidelberg, DE	100.00	100.00	2020	5.3	1.7
HeidelbergCement Holding Coöperatief U.A.	's-Hertogenbosch, NL		100.00	2020	1,127.9	12.3
HeidelbergCement Holding S.à r.l.	Strassen, LU		100.00	2020	24,119.4	70.2
HeidelbergCement Holdings Limited	Maidenhead, GB	100.00	100.00	2020	2.2	0.0
HeidelbergCement International Holding GmbH	Heidelberg, DE	100.00	100.00	2020	20,635.7	0.0
HeidelbergCement Logistik GmbH [7]	Polch, DE		100.00	2020	11.0	4.0
HeidelbergCement Mediterranean Basin Holdings S.L.U.	Madrid, ES		100.00	2020	0.0	0.0
HeidelbergCement Netherlands Holding B.V.	's-Hertogenbosch, NL	14.54	100.00	2020	809.7	0.0
HeidelbergCement Reinsurance Luxembourg S.A.	Strassen, LU		100.00	2020	15.9	0.7
HeidelbergCement UK Holding II Limited	Maidenhead, GB		100.00	2020	15,728.8	5.7
HeidelbergCement UK Holding Limited	Maidenhead, GB		100.00	2020	11,893.0	415.9
HeidelbergCement UK Limited	Maidenhead, GB		100.00	2020	89.6	89.9
HeidelbergCement, Funk & Kapphan Grundstücksgesellschaft GmbH & Co. KG [7]	Heidelberg, DE	79.91	79.91	2020	11.7	0.2
Heidelberger Beton Donau-Naab GmbH & Co. KG [7]	Burglengenfeld, DE		77.70	2020	3.6	2.3
Heidelberger Beton GmbH [7]	Heidelberg, DE	100.00	100.00	2020	450.1	38.3
Heidelberger Betonelemente GmbH & Co. KG [7]	Chemnitz, DE		83.00	2020	12.7	7.7
Heidelberger Sand und Kies GmbH [7]	Heidelberg, DE	6.00	100.00	2020	108.8	0.0
HIPS (Trustees) Limited	Maidenhead, GB		100.00	2020	0.0	0.0
HK Holdings (No.1) Limited	Maidenhead, GB		100.00	2020	47.3	16.1
HK Holdings (No.2) Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Holms Sand & Gravel Company (1985) (The)	Maidenhead, GB		100.00	2020	0.0	0.0
Holms Sand & Gravel Company Limited (The)	Maidenhead, GB		100.00	2020	0.0	0.0
Homes (East Anglia) Limited	Maidenhead, GB		100.00	2020	0.2	0.0
Hormigones y Minas S.A.	Málaga, ES		99.94	2020	23.8	1.0
Housemotor Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Houseprice Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Houserate Limited	Maidenhead, GB		100.00	2020	8,028.6	-258.6
HPL Albany House Developments Limited [5]	Maidenhead, GB		50.00	2020	-0.6	0.0
HPL Estates Limited	Maidenhead, GB		100.00	2020	3.9	0.0
HPL Investments Limited	Maidenhead, GB		100.00	2020	0.0	0.0
HPL Properties Limited	Maidenhead, GB		100.00	2020	44.5	0.0
HPL Property Limited	Maidenhead, GB		100.00	2020	44.8	0.0
HPL West London Developments Limited [5]	Maidenhead, GB		50.00	2020	-0.2	0.0
Hurst and Sandler Limited	Maidenhead, GB		100.00	2020	5.2	0.0
Immobilière des Technodes S.a.s.	Guerville, FR		100.00	2020	12.4	1.4
Imperial Foods Holdings Limited	Maidenhead, GB		100.00	2020	0.7	0.0
Imperial Group Limited	Maidenhead, GB		100.00	2020	275.8	0.0
Imperial Seafoods Limited	Maidenhead, GB		100.00	2020	1.3	0.0
Ing. Sala S.p.A.	Bergamo, IT		100.00	2020	0.5	-1.2
Interbulk Trading (IBT) S.A.	Lugano, CH		100.00	2020	75.3	-6.1
Intercom S.r.l.	Bergamo, IT		100.00	2020	7.0	0.0
Investcim S.a.s.	Guerville, FR		100.00	2020	112.0	0.0
Irvine - Whitlock Limited	Maidenhead, GB		100.00	2020	-12.1	-3.6
Ital Real Estate S.r.l.	Bergamo, IT		100.00	2020	37.9	6.4
Italcementi Finance S.A.	Guerville, FR		100.00	2020	24.3	-4.6
Italcementi S.p.A.	Bergamo, IT		100.00	2020	2,696.7	-6.2
Italsacci S.p.A.	Bergamo, IT		100.00	2020	118.9	-12.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
J. Riera, S.A.	Barcelona, ES		99.89	2020	2.0	-1.9
James Grant & Company (West) Limited	Edinburgh, GB		100.00	2020	2.5	0.0
Judkins Limited	Maidenhead, GB		100.00	2020	0.1	0.0
K.M. Property Development Company Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Kazakhstan Cement Holding B.V.	's-Hertogenbosch, NL		100.00	2020	85.1	0.0
Ketton Cement Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Kingston Minerals Limited	Maidenhead, GB		100.00	2020	0.2	0.0
L.B. (Stewartby) Limited	Maidenhead, GB		100.00	2020	58.7	0.0
Lehigh B.V.	's-Hertogenbosch, NL		100.00	2020	15,469.8	736.8
Lehigh UK Limited	Maidenhead, GB		100.00	2020	14,882.1	3.3
Les Sabliers de l'Odet S.a.s.	Quimper, FR		100.00	2020	4.4	0.0
Lindustries Limited	Edinburgh, GB		100.00	2020	49.8	0.0
Lithonplus GmbH & Co. KG [7]	Lingenfeld, DE		60.00	2020	53.6	8.0
Localdouble Limited	Maidenhead, GB		100.00	2020	0.0	0.0
M E Sub Limited	Maidenhead, GB		100.00	2020	19.7	0.0
Mantle & Llay Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Marnee Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Marples Ridgway Limited	Maidenhead, GB		100.00	2020	-4.4	0.0
Mebin B.V.	's-Hertogenbosch, NL		100.00	2020	53.1	-5.0
Mebin Leeuwarden B.V.	Leeuwarden, NL		79.79	2020	0.5	-0.3
Menaf S.a.s.	Guerville, FR		100.00	2020	-32.0	-37.5
Meppeler Betoncentrale B.V.	Meppel, NL		66.67	2020	-0.3	-0.2
Mibau Deutschland GmbH	Cadenberge, DE		60.00	2020	1.4	0.0
Mibau Holding GmbH	Cadenberge, DE		60.00	2020	67.4	23.8
Mibau Nederland B.V.	Venlo, NL		60.00	2020	2.6	0.4
Midland Quarry Products Limited	Maidenhead, GB		100.00	2020	85.8	16.1
Milton Hall (Southend) Brick Company Limited (The)	Maidenhead, GB		100.00	2020	1.5	0.0
Minster Quarries Limited	Maidenhead, GB		100.00	2020	-1.4	0.0
Mixconcrete Holdings Limited	Maidenhead, GB		100.00	2020	4.3	0.0
Mixconcrete Limited	Maidenhead, GB		100.00	2020	-2.0	0.0
Morebeat Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Motioneager Limited	Maidenhead, GB		100.00	2020	238.3	0.0
National Brick Company Limited	Maidenhead, GB		100.00	2020	2.8	0.0
National Star Brick and Tile Holdings Limited	Maidenhead, GB		100.00	2020	2.4	0.0
National Star Limited	Maidenhead, GB		100.00	2020	0.1	0.0
Nuova Sacelit S.r.l.	Bergamo, IT		100.00	2020	-2.4	-3.0
Paperbefore Limited	Maidenhead, GB		100.00	2020	336.7	0.0
Pencrete Limited	Maidenhead, GB		100.00	2020	0.1	0.0
Picon Overseas Limited	St. Peter Port, GG		100.00	2020	177.0	20.7
PILC Limited	St. Peter Port, GG		100.00	2020	20.9	0.2
Pimco 2945 Limited	Maidenhead, GB		100.00	2020	4.5	0.0
Pinden Plant & Processing Co. Limited (The)	Maidenhead, GB		100.00	2020	6.3	0.0
Pioneer Aggregates (UK) Limited	Maidenhead, GB		100.00	2020	5.1	0.0
Pioneer Asphalts (U.K.) Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Pioneer Concrete (U.K.) Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Pioneer Concrete Holdings Limited	Maidenhead, GB		100.00	2020	130.3	0.0
Pioneer International Group Holdings Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Pioneer Investments UK Limited	Maidenhead, GB		100.00	2020	0.1	0.0
Pioneer Overseas Investments Limited	St. Peter Port, GG		100.00	2020	117.4	0.0
Premix Concrete Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Purfleet Aggregates Limited	Maidenhead, GB		100.00	2020	-0.2	0.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
Redshow Limited	Maidenhead, GB		100.00	2020	123.0	0.0
Rezincote (1995) Limited	Maidenhead, GB		100.00	2020	-0.5	0.0
Roads Reconstruction Limited	Maidenhead, GB		100.00	2020	9.6	0.0
Rostocker Zementumschlagsgesellschaft mbH	Rostock, DE		60.00	2020	0.1	0.0
Rouennaise de Transformation S.a.s.	Grand-Couronne, FR		100.00	2020	1.3	0.1
S Sub Limited	Maidenhead, GB		100.00	2020	0.0	0.0
S Z G - Saarländische Zementgesellschaft mit beschränkter Haftung	Saarbrücken, DE		100.00	2020	1.2	0.1
S.A. Cimenteries CBR	Braine-l'Alleud, BE	0.00	100.00	2020	999.3	85.7
S.A. TRANS CBR	Braine-l'Alleud, BE		100.00	2020	0.1	0.1
Sabine Limited	St. Peter Port, GG		100.00	2020	240.6	0.0
Sablimaris S.a.s.	Saint-Herblain, FR		100.00	2020	13.1	1.2
Sagrex B.V.	's-Hertogenbosch, NL		100.00	2020	7.2	-0.3
Sagrex France S.A.S.	Thourotte, FR		100.00	2020	6.1	0.8
Sagrex Holding B.V.	's-Hertogenbosch, NL		100.00	2020	27.6	5.3
Sagrex Productie B.V.	's-Hertogenbosch, NL		100.00	2020	6.4	0.4
Sailtown Limited	Maidenhead, GB		100.00	2020	1,081.4	19.6
Saint Hubert Investments S.à r.l.	Strassen, LU		100.00	2020	398.9	-0.1
SAMA S.r.l. - in liquidazione [4]	Bergamo, IT		100.00	2020	-0.1	-0.1
Samuel Wilkinson & Sons Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Sax S.a.s.	Guerville, FR		100.00	2020	1.7	-0.3
Scancem Energy and Recovery Limited	Maidenhead, GB		100.00	2020	19.0	0.0
Scancem International Limited	Maidenhead, GB		100.00	2020	20.0	0.0
Scancem Recovery Limited	Maidenhead, GB		100.00	2020	19.5	0.2
Scancem Supply Limited	Maidenhead, GB		100.00	2020	-2.1	0.0
Seagoe Concrete Products Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Second City Properties Limited	Maidenhead, GB		100.00	2020	12.9	0.0
Shapedirect Limited	Maidenhead, GB		100.00	2020	1,913.2	42.6
SJP 1 Limited	Maidenhead, GB		100.00	2020	-0.1	0.0
Slotcount Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Small Lots (Mix-It) Limited	Maidenhead, GB		100.00	2020	12.0	0.0
Sociedad Financiera y Minera Sur S.L. [9]	Málaga, ES		99.94	-	-	-
Sociedad Financiera y Minera, S.A.	Málaga, ES		99.94	2020	241.3	-31.6
Socli S.a.s.	Loures-Barousse, FR		100.00	2020	9.2	2.2
Sodramaris S.N.C.	La Rochelle, FR		100.00	2020	13.7	0.0
Solrec Limited	Maidenhead, GB		100.00	2020	9.3	0.0
SQ Corporation Limited	Maidenhead, GB		100.00	2020	0.0	0.0
SQ Finance No 2 Limited	Maidenhead, GB		100.00	2020	48.7	73.8
St Edouard S.à r.l.	Strassen, LU		100.00	2020	2,690.6	0.0
ST JUDE S.à r.l.	Strassen, LU		100.00	2020	2,237.3	0.0
ST NICOLAS S.à r.l.	Strassen, LU		100.00	2020	1,567.2	0.0
Stema Shipping (UK) Limited	Grays, GB		60.00	2020	6.6	1.9
Stema Shipping France S.a.s.	Le Mesnil Esnard, FR		60.00	2020	0.6	-0.3
Stephen Toulson & Sons Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Stewartby Housing Association Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Supamix Limited	Maidenhead, GB		100.00	2020	6.3	0.0
Technodes S.a.s.	Guerville, FR		100.00	2020	-11.1	-1.2
Tercim S.a.s.	Guerville, FR		100.00	2020	-7.5	-7.9
The Purfleet Ship to Shore Conveyor Company Limited	Maidenhead, GB		100.00	2020	0.1	0.0
Thistleton Quarries Limited	Maidenhead, GB		100.00	2020	-1.6	0.0
Tillotson Commercial Motors Limited	Maidenhead, GB		100.00	2020	-20.9	0.0
Tillotson Commercial Vehicles Limited	Maidenhead, GB		100.00	2020	0.0	0.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
Tilmanstone Brick Limited	Maidenhead, GB		100.00	2020	7.9	0.0
Timesound	Maidenhead, GB		100.00	2020	0.7	0.0
Tinglev Elementfabrik GmbH	Altlandsberg, DE		100.00	2020	2.3	0.0
TLQ Limited	Edinburgh, GB		100.00	2020	0.0	0.0
TMC Pioneer Aggregates Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Tratel Affrètement S.a.s.	Guerville, FR		100.00	2020	16.1	1.5
Tratel S.a.s.	Guerville, FR		100.00	2020	23.0	1.5
Tunnel Cement Limited	Maidenhead, GB		100.00	2020	0.0	0.0
U.D.S. Holdings B.V.	's-Hertogenbosch, NL		100.00	2020	47.4	298.0
UDS (No 10)	Maidenhead, GB		100.00	2020	794.9	-76.3
UDS (No 3) Limited	Maidenhead, GB		100.00	2020	6.3	0.0
UDS Corporation Limited	Maidenhead, GB		100.00	2020	0.0	261.8
UDS Finance Limited	Maidenhead, GB		100.00	2020	45.6	0.0
UDS Group Limited	Maidenhead, GB		100.00	2020	127.5	0.0
UDS Holdings (1) Limited	Maidenhead, GB		100.00	2020	227.3	0.0
UGI Group Limited	Maidenhead, GB		100.00	2020	107.8	0.0
Unibéton Centre Ouest S.a.s.	Saint Jean le Blanc, FR		100.00	2020	6.9	-2.6
Unibéton S.a.s.	Guerville, FR		100.00	2020	-0.1	-23.2
United Gas Industries Limited	Maidenhead, GB		100.00	2020	13.0	0.0
Uniwerbéton S.a.s.	Heillecourt, FR		70.00	2020	0.4	0.0
V.E.A. Limited	St. Peter Port, GG		100.00	2020	179.5	0.3
Ventore S.L.	Málaga, ES		99.94	2020	-0.2	0.0
Viewgrove Investments Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Visionfocus Limited	Maidenhead, GB		100.00	2020	742.8	0.0
Visionrefine Limited	Maidenhead, GB		100.00	2020	-0.3	0.0
Welbecson Group Limited	Maidenhead, GB		100.00	2020	-0.1	0.0
Wineholm Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Subsidiaries						
Northern and Eastern Europe-Central Asia						
Abetong AB	Växjö, SE		100.00	2020	6.7	0.2
Abetong AS	Oslo, NO		100.00	2020	0.6	0.0
AS Kunda Nordic Tsement	Kunda, EE		75.00	2020	61.3	-6.5
BayKaz Beton LLP	Almaty, KZ		100.00	2020	0.7	-12.3
Beton.Ata LLP	Almaty, KZ		100.00	2020	0.4	0.0
Betong Sør AS	Kristiansand, NO		100.00	2020	1.7	0.3
Betongindustri AB	Stockholm, SE		100.00	2020	4.3	0.1
BETOTECH, s.r.o.	Beroun, CZ		91.50	2020	0.6	0.0
Björgun ehf	Reykjavík, IS		52.98	2020	7.5	0.3
BM Valla ehf	Reykjavík, IS		52.98	2020	21.0	3.3
Bukhtarma Cement Company LLP	Oktyabrskiy village, KZ		100.00	2020	22.3	1.9
Calumite s.r.o.	Ostrava-Kunčičky, CZ		51.00	2020	4.4	0.8
CaspiCement Limited Liability Partnership	Shetpe, KZ		100.00	2020	49.1	2.5
Caspinerud Limited Liability Partnership	Shetpe, KZ		100.00	2020	7.8	0.4
Cementa AB	Stockholm, SE		100.00	2020	49.0	5.6
Cementa Fastighets AB	Stockholm, SE		100.00	2020	0.1	0.0
Cementa sp. z o. o.	Warszawa, PL		100.00	2020	0.1	0.0
Českomoravský beton, a.s.	Beroun, CZ		100.00	2020	24.7	5.2
Českomoravský cement, a.s.	Mokrá-Horákov, CZ		100.00	2020	107.8	51.8
Českomoravský štěrk, a.s.	Mokrá-Horákov, CZ		100.00	2020	57.8	10.7
Contiga A/S	Tinglev, DK		100.00	2020	11.7	6.3

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
Contiga AB	Norrtälje, SE		100.00	2020	1.0	0.2
Contiga AS	Moss, NO		100.00	2020	46.2	28.1
Contiga Holding AS	Oslo, NO		100.00	2020	58.9	7.4
Contiga Väst AB	Uddevalla, SE		100.00	2020	4.4	3.4
Devnya Cement AD	Devnya, BG		99.94	2020	240.5	9.8
DK Beton A/S	Ringsted, DK		100.00	2020	26.9	2.2
DK Cement A/S	Ringsted, DK		100.00	2020	9.7	0.0
Eignarhaldsfélagið Hornsteinn ehf.	Reykjavík, IS		52.98	2020	34.4	4.5
Fastighets AB Limhamns Kalkbrott	Stockholm, SE		100.00	2020	2.3	0.0
Fastighets AB Lövholmen	Stockholm, SE		100.00	2020	0.5	0.1
Garkalnes Grants SIA	Riga, LV		100.00	2020	8.4	0.4
Global IT Center EAD	Devnya, BG		99.94	2020	1.0	0.1
Górażdże Beton Sp. z o.o.	Górażdże, PL		100.00	2020	14.2	-9.1
Górażdże Cement S.A.	Górażdże, PL		100.00	2020	480.3	83.0
Górażdże Kruszywa Sp. z o.o.	Górażdże, PL		100.00	2020	44.8	2.6
Halyps Building Materials S.A.	Aspropyrgos, GR		99.90	2020	73.8	9.6
Hanson Iceland EHF	Reykjavík, IS		100.00	2020	2,236.7	0.1
HC Betons SIA	Riga, LV		100.00	2020	0.2	-1.0
HC Betoon AS, Estonia	Tallinn, EE		100.00	2020	5.7	-0.3
HC SSC Latvia, SIA	Riga, LV		100.00	2020	-0.1	0.0
HeidelbergCement Africa Holding Kommanditbolag	Stockholm, SE		100.00	2020	23.8	0.0
HeidelbergCement Danmark A/S	Ringsted, DK		100.00	2020	42.4	2.7
HeidelbergCement Iceland EHF	Reykjavík, IS		100.00	2020	18.5	2.4
HeidelbergCement Miljö AB	Örebro, SE		100.00	2020	1.8	0.0
HeidelbergCement Northern Europe AB	Stockholm, SE		100.00	2020	1,268.7	25.3
HeidelbergCement Norway AS	Oslo, NO		100.00	2020	537.3	478.9
HeidelbergCement România S.A.	Bucharest, RO		100.00	2020	292.0	92.0
HeidelbergCement Services - LLP	Almaty, KZ		100.00	2020	-0.9	-0.1
HeidelbergCement Sweden AB	Stockholm, SE		100.00	2020	226.8	13.7
Italmed Cement Company Ltd.	Limassol, CY		99.90	2020	25.2	1.6
Kamenivo Slovakia a.s.	Bytča-Hrabové, SK		100.00	2020	2.0	0.2
LLC "Norcem Kola"	Murmansk, RU		100.00	2020	0.2	-0.3
LLC 'HeidelbergCement Rus'	Podolsk, RU		100.00	2020	119.3	25.0
LLC KaliningradCement	Kaliningrad, RU		100.00	2020	1.2	-0.3
Lyulyaka Materials EAD	Devnya, BG		99.94	2020	1.2	0.1
Magnatool AB	Stockholm, SE		75.00	2020	0.0	0.0
Mibau Polska Sp. z o.o.	Gdansk, PL		60.00	2020	1.7	0.2
Norbetong AS	Oslo, NO		100.00	2020	89.4	0.0
Norcem AS	Oslo, NO		100.00	2020	42.3	21.2
Nordic Precast Group AB	Stockholm, SE		100.00	2020	137.1	-1.0
Nordic Precast Kasen Fastighets AB	Uddevalla, SE		100.00	2020	1.0	0.7
Norsk Stein AS	Jelsa, NO		60.00	2020	85.0	10.7
NorStone AS	Sandnes, NO		100.00	2020	3.0	0.7
OJSC "Cesla"	Slantsy, RU		99.98	2020	7.2	-1.4
OJSC Gurovo-Beton	Novogurovsky, RU		100.00	2020	1.9	0.5
Precon Polska Sp.z.o.o.	Warszawa, PL		100.00	2020	4.8	0.3
Protenna AB	Stockholm, SE		75.00	2020	25.9	0.0
Renor AS	Aurskog, NO		100.00	2020	4.4	0.4
Sand- och grusaktiebolaget Jehander	Stockholm, SE		100.00	2020	11.0	0.0
Scancem Central Africa Holding 1 AB	Stockholm, SE		100.00	2020	5.3	0.0
Scancem Central Africa Holding 2 AB	Stockholm, SE		100.00	2020	0.1	0.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
Scancem Central Africa Holding 3 AB	Stockholm, SE		100.00	2020	0.2	0.0
Scancem Central Africa Holding 4 AB	Stockholm, SE		100.00	2020	0.0	0.0
Scancem Holding AS	Oslo, NO		100.00	2020	18.5	5.2
Scancem International DA	Oslo, NO		100.00	2020	127.8	84.2
Sementsverksmidjan ehf	Akranes, IS		52.98	2020	5.6	0.9
ShymkentCement JSC	Shymkent, KZ		100.00	2020	14.3	7.2
SIA BALTIC SAULE	Riga, LV		100.00	2020	2.5	-0.1
SIA SBC	Marupe, LV		100.00	2020	2.4	0.8
SIA SBC Finance	Marupe, LV		100.00	2020	0.1	0.0
SIA SBC Property [5]	Marupe, LV		49.00	2020	3.7	0.3
Sola Betong AS	Tananger, NO		66.67	2020	1.3	0.0
Splitt Chartering Aps	Aabenraa, DK		60.00	2020	16.2	7.6
SSC Lithuania UAB	Kaunas, LT		100.00	2020	0.0	0.0
Stema Shipping A/S	Aabenraa, DK		60.00	2020	84.4	23.6
TBG BETONMIX a. s.	Brno, CZ		66.00	2020	9.0	2.0
TBG BETONPUMPY MORAVA s.r.o.	Brno, CZ		84.90	2020	0.7	0.2
TBG SEVEROZÁPADNÍ ČECHY s.r.o.	Chomutov, CZ		66.00	2020	2.3	0.4
TBG Slovensko, a. s.	Bratislava, SK		100.00	2020	2.6	-2.1
TBG Východní Čechy s.r.o.	Mladé Buky, CZ		70.04	2020	1.9	0.5
TBG VYSOČINA s.r.o.	Kožichovice, CZ		59.40	2020	1.7	0.4
UAB HC Betonas	Kaunas, LT		100.00	2020	-0.5	-0.6
UAB HeidelbergCement Klaipeda	Klaipėda, LT		100.00	2020	3.9	0.4
Vulkan Cement AD	Dimitrovgrad, BG		98.60	2020	39.5	-0.2

Subsidiaries						
North America						
Amangani SA	Panama City, PA		100.00	2020	-0.5	0.0
Amcord, Inc.	Wilmington, US		100.00	2020	-2.2	-3.6
Anche Holdings Inc	Panama City, PA		100.00	2020	0.0	0.0
Asian Carriers Inc.	Panama City, PA		100.00	2020	31.8	0.0
Astravance Corp.	Panama City, PA		100.00	2020	4.8	0.0
Beazer East, Inc.	Wilmington, US		100.00	2020	-208.8	-25.0
Cadman Materials, Inc.	Tumwater, US		100.00	2020	60.0	-1.0
Cambridge Aggregates Inc.	Cambridge, CA		60.00	2020	6.5	1.9
Campbell Concrete & Materials LLC	Austin, US		100.00	2020	36.3	-0.9
Campbell Transportation Services LLC [8]	Austin, US		100.00	-	-	-
Cavenham Forest Industries LLC	Wilmington, US		100.00	2020	-84.3	-4.6
Cindercrete Mining Supplies Ltd. [5]	Regina, CA		50.00	2020	4.7	0.0
Cindercrete Products Limited	Regina, CA		100.00	2020	8.5	-13.9
Commercial Aggregates Transportation and Sales, LLC	Wilmington, US		100.00	2020	2.4	0.1
Constar LLC	Wilmington, US		100.00	2020	304.3	16.1
Corliss Resources, LLC	Dover, US		100.00	2020	30.2	8.3
Cowichan Corporation	Panama City, PA		100.00	2020	0.5	0.0
Essex NA Holdings LLC	Wilmington, US		100.00	2020	43.1	0.0
Essroc Holdings LLC	Wilmington, US		100.00	2020	734.9	0.0
Fairburn Ready-Mix, Inc.	Norcross, US		100.00	2020	13.6	1.6
Greyrock, LLC	Wilmington, US		100.00	2020	90.6	1.0
Gulf Coast Stabilized Materials LLC	Austin, US		100.00	2020	61.0	4.6
Gypsum Carrier Inc	Panama City, PA		100.00	2020	60.1	0.0
Hampshire Properties LLC	Austin, US		100.00	2020	-0.3	0.0
Hanson Aggregates Midwest, Inc.	Frankfort, US		100.00	2020	715.0	63.8

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
Hanson Aggregates New York LLC	Albany, US		100.00	2020	580.9	30.9
Hanson Aggregates Pennsylvania LLC	Wilmington, US		100.00	2020	383.0	18.1
Hanson Aggregates Southeast LLC	Wilmington, US		100.00	2020	712.7	56.4
Hanson Aggregates WRP, Inc.	Wilmington, US		100.00	2020	-2.2	2.9
Hanson Building Materials America LLC	Wilmington, US		100.00	2020	-340.1	0.0
Hanson Green Limited	Hamilton, BM		100.00	2020	0.1	0.0
Hanson Micronesia Cement, Inc.	Wilmington, US		100.00	2020	4.7	0.1
Hanson Permanente Cement of Guam, Inc.	Sacramento, US		100.00	2020	46.2	1.5
Hanson Permanente Cement, Inc.	Phoenix, US		100.00	2020	-165.8	-260.2
Harrell Aggregate Hauling, Inc.	Norcross, US		100.00	2020	0.4	0.0
HBMA Holdings LLC	Wilmington, US		100.00	2020	3,679.2	16.2
HC Trading Americas, LLC [9]	Coral Gables, US		100.00	-	-	-
HNA Investments	Wilmington, US		100.00	2020	1,512.8	0.0
Kaiser Gypsum Company, Inc.	Raleigh, US		100.00	2020	-98.5	-6.8
KH 1 Inc.	Wilmington, US		100.00	2020	12.3	0.0
Lehigh Cement Company LLC	Wilmington, US		100.00	2020	1,363.9	90.0
Lehigh Hanson Cement South LLC	Wilmington, US		100.00	2020	328.9	60.5
Lehigh Hanson Materials Limited	Calgary, CA		100.00	2020	1,590.1	-57.5
Lehigh Hanson Materials South LLC	Austin, US		100.00	2020	683.4	7.4
Lehigh Hanson Receivables LLC	Wilmington, US		100.00	2020	62.8	7.5
Lehigh Hanson Services LLC	Wilmington, US		100.00	2020	-182.5	30.5
Lehigh Hanson, Inc.	Wilmington, US		100.00	2020	8,357.3	-123.6
Lehigh Northwest Cement Company	Tumwater, US		100.00	2020	150.2	3.1
Lehigh Northwest Marine, LLC	Wilmington, US		100.00	2020	2.3	0.0
Lehigh Southwest Cement Company	Sacramento, US		100.00	2020	210.2	-181.8
LHI Duomo Holdings LLC	Wilmington, US		100.00	2020	0.0	0.0
Mediterranean Carriers, Inc.	Panama City, PA		100.00	2020	-2.4	0.0
Permanente Cement Company [8]	Los Angeles, US		100.00	-	-	-
Pioneer International Overseas Corporation	Road Town, VG		100.00	2020	152.9	1.7
Rimarcal Corporation	Panama City, PA		100.00	2020	0.0	0.0
Sherman Industries LLC	Wilmington, US		100.00	2020	27.4	-2.7
Sinclair General Corporation	Panama City, PA		100.00	2020	1,096.1	504.4
Standard Concrete Products, Inc.	Sacramento, US		100.00	2020	0.0	-0.1
Three Rivers Management, Inc.	Wilmington, US		100.00	2020	-3.3	0.0
Vestur Insurance (Bermuda) Ltd	Hamilton, BM		100.00	2020	0.0	0.0
Subsidiaries						
Asia-Pacific						
Alex Fraser Asphalt Holdings Pty Ltd	Sydney, AU		100.00	2020	1.1	0.0
Alex Fraser Asphalt Pty Ltd	Sydney, AU		100.00	2020	20.3	11.3
Alex Fraser Holdings Pty Ltd	Sydney, AU		100.00	2020	4.2	0.0
Alex Fraser Pty Ltd	Sydney, AU		100.00	2020	8.6	-0.9
Asia Cement Energy Conservation Co., Ltd. [5]	Bangkok, TH		39.53	2020	42.8	8.5
Asia Cement Products Co., Ltd. [5]	Bangkok, TH		39.53	2020	3.1	-2.1
Asia Cement Public Company Limited [5]	Bangkok, TH		39.53	2020	274.0	27.9
Bitumix Granite Sdn Bhd	Kuala Lumpur, MY		100.00	2020	1.1	0.3
Butra HeidelbergCement Sdn Bhd	Muara, BN		70.00	2020	7.5	-0.4
Calga Sands Pty Ltd	Sydney, AU		100.00	2020	9.8	-0.5
CBR Cement (Guangzhou) Company Limited	Guangzhou, CN		100.00	2020	1.5	0.2
Cemix Concrete (M) Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.9	-0.4
CGF Pty Limited	Sydney, AU		100.00	2020	158.2	0.0

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
Christies Stone Quarries Pty Ltd	Sydney, AU		100.00	2020	0.0	0.0
Concrete Materials Laboratory Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.5	0.0
Consolidated Quarries Pty Ltd	Sydney, AU		100.00	2020	0.0	0.0
Construction Materials Pty Ltd	Sydney, AU		100.00	2020	0.0	0.0
Excel Quarries Pty Limited	Sydney, AU		100.00	2020	0.1	0.0
Galli Quarries Pty Limited	Sydney, AU		100.00	2020	22.5	-0.6
Gerak Harapan Sdn Bhd	Kuala Lumpur, MY		70.00	2020	-0.2	-0.1
Gulbarga Cement Limited	Bangalore, IN		100.00	2021	39.2	-1.9
Hanson Australia (Holdings) Proprietary Limited	Sydney, AU		100.00	2020	909.8	-1,021.6
Hanson Australia Cement (2) Pty Ltd	Sydney, AU		100.00	2020	25.9	21.4
Hanson Australia Cement Pty Limited	Sydney, AU		100.00	2020	27.5	21.4
Hanson Australia Funding Limited	Sydney, AU		100.00	2020	36.9	1,001.9
Hanson Australia Investments Pty Limited	Sydney, AU		100.00	2020	2.2	4.5
Hanson Australia Pty Limited	Sydney, AU		100.00	2020	855.3	265.8
Hanson Building Materials Cartage Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.6	0.0
Hanson Building Materials Malaysia Sdn Bhd	Kuala Lumpur, MY		100.00	2020	20.0	-4.2
Hanson Building Materials Manufacturing Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.6	0.1
Hanson Building Materials Production Sdn Bhd	Sungai Nibong, MY		100.00	2020	11.7	0.2
Hanson Building Materials Transport Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.4	0.1
Hanson Building Materials-KTPC Sdn Bhd [4]	Kuala Lumpur, MY		100.00	2020	0.3	0.0
Hanson Building Materials-KTPC-PBPM Sdn Bhd [4]	Kuala Lumpur, MY		100.00	2020	1.1	0.0
Hanson Building Materials-PBPM Sdn Bhd [4]	Kuala Lumpur, MY		100.00	2020	0.2	0.0
Hanson Cement Holdings Pty Ltd	Sydney, AU		100.00	2020	3.9	4.4
Hanson Concrete (M) Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.5	0.0
Hanson Construction Materials Pty Ltd	Sydney, AU		100.00	2020	3.9	23.0
Hanson Finance Australia Ltd	Sydney, AU		100.00	2020	62.2	-1.0
Hanson Holdings (M) Sdn Bhd	Kuala Lumpur, MY		100.00	2020	11.6	0.0
Hanson Holdings Australia Pty Ltd	Sydney, AU		100.00	2020	-0.5	-2.6
Hanson Investment Holdings Pte Ltd	Singapore, SG		100.00	2020	34.8	0.1
Hanson Landfill Services Pty Ltd	Sydney, AU		100.00	2020	59.8	6.4
Hanson Pacific (S) Pte Limited	Singapore, SG		100.00	2020	-6.9	0.0
Hanson Pty Limited	Sydney, AU		100.00	2020	2,542.3	262.7
Hanson Quarries Victoria Pty Limited	Sydney, AU		100.00	2020	0.5	0.0
Hanson Quarry Products (Batu Pahat) Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.1	0.0
Hanson Quarry Products (EA) Sdn Bhd [4]	Kuala Lumpur, MY		100.00	2020	0.5	0.0
Hanson Quarry Products (Holdings) Sdn Bhd	Kuala Lumpur, MY		100.00	2020	41.3	-1.1
Hanson Quarry Products (Kuantan) Sdn Bhd [4]	Kuala Lumpur, MY		100.00	2020	0.1	0.0
Hanson Quarry Products (Kulai) Sdn Bhd [4]	Kuala Lumpur, MY		100.00	2020	9.4	0.0
Hanson Quarry Products (Land) Sdn Bhd	Kuala Lumpur, MY		100.00	2020	2.8	0.2
Hanson Quarry Products (Masai) Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.8	0.0
Hanson Quarry Products (Northern) Sdn Bhd [4]	Kuala Lumpur, MY		100.00	2020	0.2	0.0
Hanson Quarry Products (Pengerang) Sdn Bhd [4]	Kuala Lumpur, MY		100.00	2020	1.1	0.0
Hanson Quarry Products (Perak) Sdn Bhd [4]	Kuala Lumpur, MY		100.00	2020	0.5	0.0
Hanson Quarry Products (Rawang) Sdn Bhd [4]	Kuala Lumpur, MY		100.00	2020	1.1	0.1
Hanson Quarry Products (Segamat) Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.5	0.1
Hanson Quarry Products (Tempoyak) Sdn Bhd	Kuala Lumpur, MY		100.00	2020	-1.8	-0.5
Hanson Quarry Products (Terengganu) Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.7	0.0
Hanson Quarry Products Sdn Bhd	Kuala Lumpur, MY		100.00	2020	36.6	-1.9
HC Trading (India) Private Limited	Hyderabad, IN		100.00	2020	0.2	0.1
HC Trading Asia and Pacific Pte. Ltd.	Singapore, SG		100.00	2020	1.2	0.3
HeidelbergCement (Hong Kong) Company Limited	Hong Kong S.A.R., CN		100.00	2020	0.1	0.0

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
HeidelbergCement Asia Pte Ltd	Singapore, SG		100.00	2020	9.7	-2.1
HeidelbergCement Bangladesh Limited	Narayanganj, BD		60.66	2020	33.2	0.1
HeidelbergCement Holding HK Limited	Hong Kong S.A.R., CN		100.00	2020	52.9	37.9
HeidelbergCement India Limited	Gurgaon (State-Haryana), IN		69.39	2021	174.2	35.9
HeidelbergCement Myanmar Company Limited	Yangon, MM		100.00	2021	0.3	-0.1
Hymix Australia Pty Ltd	Sydney, AU		100.00	2020	74.6	14.5
Jalaprathan Cement Public Company Limited [5]	Bangkok, TH		35.12	2020	89.7	2.4
Jalaprathan Concrete Co., Ltd. [5]	Bangkok, TH		35.12	2020	8.0	0.4
Melbourne Concrete Pty Ltd	Sydney, AU		100.00	2020	0.3	0.0
Naga Property Co., Ltd. [5]	Bangkok, TH		35.12	2020	0.2	0.0
Pioneer Concrete (Tasmania) Proprietary Limited	Sydney, AU		100.00	2020	5.2	0.0
Pioneer Concrete Services (Malaysia) S/B [4] [8]	Petaling Jaya, MY		100.00	-	-	-
Pioneer International (Labuan) Ltd [4]	Wilayah Persekutuan Labuan, MY		100.00	2020	0.4	0.0
Pioneer International Holdings Pty Ltd	Sydney, AU		100.00	2020	132.0	-1,306.2
Pioneer North Queensland Pty Ltd	Sydney, AU		100.00	2020	26.2	0.8
Placecrete Australia Pty Ltd	Sydney, AU		100.00	2020	-0.7	0.0
Plentong Granite Industries Sdn Bhd [4]	Kuala Lumpur, MY		70.00	2020	0.7	0.0
PT Bahana Indonor	Jakarta, ID		52.87	2020	16.7	1.4
PT Bhakti Sari Perkasa Abadi	Jakarta, ID		52.87	2020	0.8	0.1
PT Cipta Armada Bersama [8]	Batam, ID		52.87	-	-	-
PT Dian Abadi Perkasa	Jakarta, ID		52.87	2020	97.9	8.5
PT Indocement Tunggal Prakarsa Tbk.	Jakarta, ID		52.89	2020	1,202.0	104.6
PT Indomix Perkasa	Jakarta, ID		52.89	2020	28.3	0.0
PT Kencana Terang Sejahtera	Jakarta, ID		52.87	2020	0.1	0.0
PT Lentera Abadi Sejahtera	Jakarta, ID		52.89	2020	0.0	0.0
PT Lintas Bahana Abadi	Jakarta, ID		52.87	2020	5.5	0.5
PT Makmur Abadi Perkasa Mandiri	Jakarta, ID		52.89	2020	0.0	0.0
PT Makmur Lestari Abadi	Jakarta, ID		52.87	2020	0.2	0.0
PT Makmur Lestari Indonesia	Jakarta, ID		52.87	2020	0.4	0.0
PT Makmur Lestari Sentosa	Jakarta, ID		52.87	2020	10.9	0.0
PT Mandiri Sejahtera Sentra	Purwakarta, ID		52.87	2020	38.6	-1.2
PT Mineral Industri Sukabumi	Sukabumi, ID		52.87	2020	4.6	0.1
PT Multi Bangun Galaxy	Lombok, ID		52.87	2020	11.8	0.0
PT Pionirbeton Industri	Jakarta, ID		52.89	2020	4.6	-6.0
PT Sahabat Muliasakti	Pati, ID		52.87	2020	-0.1	0.0
PT Sari Bhakti Sejati	Jakarta, ID		52.89	2020	3.1	0.1
PT Semesta Perkasa Cipta	Bogor, ID		52.87	2020	1.9	0.0
PT Sinar Sakti Agung	Jakarta, ID		52.87	2020	0.0	0.0
PT Tarabatuh Manunggal	Bogor, ID		52.87	2020	23.9	-0.1
PT Terang Prakarsa Cipta	Medan, ID		52.89	2020	0.1	0.0
PT Tigaroda Rumah Sejahtera	Jakarta, ID		52.89	2020	0.3	0.0
PT Tiro Abadi Perkasa	Jakarta, ID		52.87	2020	0.0	0.0
Queensland Recycling Holdings Pty Ltd	Sydney, AU		100.00	2020	2.5	0.0
Queensland Recycling Pty Ltd	Sydney, AU		100.00	2020	0.4	0.3
Rajang Perkasa Sdn Bhd	Kuala Lumpur, MY		60.00	2020	0.3	0.3
Realistic Sensation Sdn Bhd	Kuala Lumpur, MY		69.98	2020	1.5	0.1
Recycling Industries Pty Ltd	Sydney, AU		100.00	2020	13.6	3.1
Sofinaz Holdings Sdn Bhd	Kuala Lumpur, MY		100.00	2020	0.3	0.0
South Coast Basalt Pty Ltd	Sydney, AU		100.00	2020	20.4	1.2
Suncoast Asphalt Pty Ltd	Sydney, AU		100.00	2020	0.1	-1.9
Tanah Merah Quarry Sdn Bhd	Kuala Lumpur, MY		100.00	2020	-2.0	0.0
Traino Group Australia Pty Ltd	Sydney, AU		70.00	2020	5.0	0.4

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
Valscot Pty Limited	Sydney, AU		100.00	2020	0.0	0.0
Vaniyuth Co., Ltd. [5]	Bangkok Metropolis, TH		48.80	2020	18.2	2.8
Waterfall Quarries Pty Limited	Sydney, AU		100.00	2020	0.0	0.0
West Coast Premix Pty Ltd	Sydney, AU		100.00	2020	-0.2	0.0
Western Suburbs Concrete Partnership [5]	Parramatta, AU		50.00	2021	4.8	4.6
XL Premix Partnership [5]	Fairfield, AU		50.00	2020	-3.1	-0.8
XL Premix Pty Ltd [5]	Sydney, AU		50.00	2020	0.0	0.0
Zuari Cement Ltd.	Bangalore, IN		100.00	2021	181.8	19.8
Subsidiaries						
Africa-Eastern Mediterranean Basin						
ACH Investments Limited	Ebene, MU		100.00	2020	15.3	0.0
Africim S.A.	Casablanca, MA		51.00	2020	1.4	0.0
ATLANTIC CIMENT	Casablanca, MA		51.00	2020	2.0	0.2
Austral Cimentos Sofala, SA	Dondo, MZ		100.00	2020	10.4	3.3
BETOSAHA SA [5]	Laâyoune, MA		26.01	2020	0.9	-0.1
Calcim S.A.	Cotonou, BJ		89.00	2020	1.0	-0.2
Cimbenin S.A.	Cotonou, BJ		87.95	2020	15.7	1.2
CimBurkina S.A.	Ouagadougou, BF		80.00	2020	36.5	12.4
Cimenterie de Lukala S.A.	Kinshasa, CD		94.22	2020	-3.4	-10.0
Ciments du Maroc S.A.	Casablanca, MA		51.00	2020	348.4	66.5
Ciments du Togo SA	Lomé, TG		99.63	2020	43.1	11.7
DECOM Egyptian Co for Development of Building Materials S.A.E. [5]	Cairo, EG		36.48	2020	10.2	1.6
Gacem Company Limited	Serrekunda, GM		100.00	2020	-1.0	-1.0
Ghacem Ltd.	Tema, GH		93.10	2020	55.0	65.0
GRANUBENIN SA avec CA [4] [8]	Cotonou, BJ		89.90	-	-	-
Hanson (Israel) Ltd	Ramat Gan, IL		99.98	2020	232.3	17.1
Hanson Quarry Products (Israel) Ltd	Ramat Gan, IL		99.98	2020	211.5	4.2
Hanson Yam Limited Partnership	Ramat Gan, IL		99.98	2020	5.9	1.3
HC Trading FZE	Dubai, AE		100.00	2020	1.6	0.4
HeidelbergCement Afrique Service	Lomé, TG		94.43	2020	0.0	0.0
Helwan Cement Company S.A.E.	Helwan/Greater Cairo, EG		69.83	2020	49.4	-12.3
Industrie Sakia El Hamra "Indusaha" S.A. [5]	Laâyoune, MA		46.91	2020	84.5	12.8
Interbulk Egypt for Export S.A.E.	Cairo, EG		100.00	2020	-0.1	-0.2
La Societe GRANUTOGO SA	Lomé, TG		90.00	2020	2.1	0.1
Liberia Cement Corporation Ltd.	Monrovia, LR		81.67	2020	32.2	11.5
Pioneer Beton Muva Umachzavot Ltd	Ramat Gan, IL		99.98	2020	0.2	0.0
Procimar S.A.	Casablanca, MA		100.00	2020	101.1	27.2
Scantogo Mines SA	Lomé, TG		90.00	2020	31.1	11.2
Suez Cement Company S.A.E.	Cairo, EG		70.15	2020	146.4	-42.4
Suez for Transportation & Trade S.A.E.	Cairo, EG		69.47	2020	0.7	0.2
Tadir Readymix Concrete (1965) Ltd	Ramat Gan, IL		100.00	2020	0.2	0.2
Tanzania Portland Cement Public Limited Company	Dar es Salaam, TZ		69.25	2020	89.3	28.0
Teracem Limited	Accra, GH		100.00	2020	1.3	-0.4
Tourah Portland Cement Company S.A.E.	Cairo, EG		65.17	2020	-54.9	-13.0
Universal Company for Ready Mix Concrete Production S.A.E. [5]	Cairo, EG		36.48	2020	23.0	2.8
West Africa Quarries Limited	Tema, GH		83.79	2020	1.2	0.7
Joint Operations						
Western and Southern Europe						
Atlantica de Graneles y Moliendas S.A.	Zierbena-Vizcaya, ES		49.97	2020	-21.1	0.0

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
Joint Operations						
North America						
Terrell Materials LLC	Frisco, US		50.00	2020	10.7	3.2
Joint Operations						
Asia-Pacific						
Lytton Unincorporated Joint Venture	Toowong, AU		50.00	2020	0.0	0.0
Joint Ventures						
Western and Southern Europe						
ABE Deponie GmbH	Damsdorf, DE		50.00	2020	3.0	0.9
bihek GmbH	Breisach am Rhein, DE		40.00	2020	0.1	-0.2
Carrières Bresse Bourgogne S.A.	Épervans, FR		33.26	2020	6.6	0.3
CaucasusCement Holding B.V.	's-Hertogenbosch, NL		45.00	2020	52.4	9.9
Donau Kies GmbH & Co. KG	Fürstenzell, DE		75.00	2020	6.8	0.9
DONAU MÖRTEL - GmbH & Co. KG	Neuburg a. Inn, DE		50.00	2020	0.3	0.1
Dragages et Carrières S.A.	Épervans, FR		50.00	2020	3.4	0.5
Fraimbois Granulats S.à r.l.	Fraimbois, FR		50.00	2020	-0.2	-0.1
GENAMO Gesellschaft zur Entwicklung des Naherholungsgebietes Misburg-Ost mbH	Hannover, DE	50.00	50.00	2020	1.6	0.8
Hafenbetriebsgesellschaft mbH & Co KG Stade	Stade, DE		50.00	2020	0.5	0.1
Heidelberger Beton Donau-Iller GmbH & Co. KG	Elchingen, DE		80.48	2020	0.8	0.0
Heidelberger Betonpumpen Simonis GmbH & Co. KG	Ubstadt-Weiher, DE		65.29	2020	2.5	0.5
Humber Sand and Gravel Limited [8]	Rugby, GB		50.00	-	-	-
KANN Beton GmbH & Co KG	Bendorf, DE		50.00	2020	0.9	0.9
Kieswerk Langsdorf GmbH	Jarmen, DE		62.45	2020	1.0	0.0
Kieswerke Flemmingen GmbH	Penig, DE		54.00	2020	3.2	0.4
Les Graves de l'Estuaire S.a.s.	Le Havre, FR		50.00	2020	0.1	-0.4
New Milton Sand and Ballast Limited	New Milton, GB		49.00	2020	11.1	0.0
North Tyne Roadstone Limited	Birmingham, GB		50.00	2020	-1.4	-0.3
Raunheimer Quarzsand GmbH & Co. KG	Raunheim, DE		50.00	2020	1.5	0.7
Rewinn B.V.	Amsterdam, NL		50.00	2020	0.8	-0.2
Sandkorn GmbH & Co. KG	Trappenkamp, DE		25.00	2020	0.6	0.9
SCL S.A.	Heillecourt, FR		50.00	2020	-0.8	0.0
Smiths Concrete Limited	Oxford, GB		49.00	2020	9.4	-1.4
SPS S.a.s.	Pont de l'Arche, FR		50.00	2020	4.8	-0.7
TBG Ilm-Beton GmbH & Co. KG	Arnstadt, DE		55.00	2020	0.4	0.0
TBG Rott Kies und Transportbeton GmbH	Kelheim, DE		38.85	2020	0.8	0.5
TBG Transportbeton GmbH & Co. KG Naabbeton	Nabburg, DE		50.00	2020	4.4	0.8
TBG Transportbeton Oder-Spree GmbH & Co. KG	Wriezen, DE		50.00	2020	1.5	0.7
TBG Transportbeton Reichenbach GmbH & Co. KG	Reichenbach, DE		70.00	2020	0.6	0.0
TBG Transportbeton Werner GmbH & Co. KG	Dietfurt a.d. Altmühl, DE		38.85	2020	0.1	0.3
Trapobet Transportbeton GmbH Kaiserslautern Kommanditgesellschaft	Kaiserslautern, DE		50.00	2020	1.0	1.2
Joint Ventures						
Northern and Eastern Europe-Central Asia						
AS Betongpumping	Våler i Østfold, NO		50.00	2020	0.8	0.1
Betong Øst AS	Kongsvinger, NO		50.00	2020	10.1	5.1
Betong Vest AS	Blomsterdalen, NO		40.00	2020	3.0	0.5
BT Topbeton Sp. z o.o.	Gorzów Wielkopolski, PL		50.00	2020	5.9	0.9
CEMET S.A.	Warszawa, PL		42.91	2020	20.4	3.9
Devnya Limestone AD, Chernevo	Chernevo Village, BG		49.97	2020	13.0	0.4
Duna-Dráva Cement Kft.	Vác, HU		50.00	2020	189.4	48.3
JSC "Mineral Resources Company"	Ishimbay, RU		50.00	2020	9.8	-0.1

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
PÍSKOVNY MORAVA spol. s r.o.	Němčičky, CZ		50.00	2020	2.1	0.5
Pražské betonpumpy a doprava s.r.o.	Praha, CZ		50.00	2020	2.5	0.2
Tangen Eiendom AS	Brevik, NO		50.00	2020	3.2	0.1
TBG METROSTAV s.r.o.	Praha, CZ		50.00	2020	12.3	1.3
TBG Plzeň Transportbeton s.r.o.	Beroun, CZ		50.10	2020	2.1	0.6
TBG SWIETELSKY s.r.o.	České Budějovice, CZ		51.00	2020	1.1	0.2
Vltavské štěrkopísky, s.r.o.	Chlumín, CZ		50.00	2020	3.6	0.8
Joint Ventures						
North America						
American Stone Company	Raleigh, US		50.00	2020	3.2	0.5
BP General Partner Ltd. [8]	Winnipeg, CA		50.00	-	-	-
Building Products & Concrete Supply Limited Partnership	Winnipeg, CA		50.00	2020	12.2	3.7
Bulk Silos LLC	Mendota Heights, US		50.00	2020	0.0	0.0
China Century Cement Ltd.	Hamilton, BM		50.00	2020	137.3	21.1
Jack Cewe Construction Ltd.	Coquitlam, CA		50.00	2020	9.3	1.5
Red Bluff Sand & Gravel, L.L.C.	Birmingham, US		50.00	2020	5.0	0.6
Sunset Quarry, L.L.C.	Tacoma, US		50.00	2020	0.6	-0.1
Texas Lehigh Cement Company LP	Austin, US		50.00	2020	120.8	69.1
Joint Ventures						
Asia-Pacific						
Alliance Construction Materials Limited	Hong Kong S.A.R., CN		50.00	2020	25.1	2.0
Cement Australia Holdings Pty Ltd	Darra, AU		50.00	2020	185.1	26.6
Cement Australia Partnership	Darra, AU		50.00	2020	104.3	120.9
Cement Australia Pty Limited	Darra, AU		50.00	2020	0.0	0.0
Easy Point Industrial Ltd.	Hong Kong S.A.R., CN		50.00	2020	0.5	0.1
Jidong Heidelberg (Fufeng) Cement Company Limited	Baoji City, CN		48.11	2020	107.6	45.3
Jidong Heidelberg (Jingyang) Cement Company Limited	Xianyang City, CN		50.00	2020	112.0	54.5
M&H Quarries Partnership	Doncaster, AU		50.00	2020	-2.5	-0.1
Metromix Pty Limited	Parramatta, AU		50.00	2020	13.4	-2.7
Penrith Lakes Development Corporation Limited	Castlereagh, AU		20.00	2021	-111.3	5.7
Squareal Cement Ltd	Hong Kong S.A.R., CN		50.00	2020	98.3	31.5
Technically Designed Concrete Partnership	Bibra Lake, AU		50.00	2021	0.6	-0.1
Joint Ventures						
Africa-Eastern Mediterranean Basin						
Akçansa Çimento Sanayi ve Ticaret A.S.	Ataşehir/Istanbul, TR	39.72	39.72	2020	77.4	17.0
Associates						
Western and Southern Europe						
Béton Contrôle des Abers S.a.s.	Lannilis, FR		34.00	2020	6.2	0.6
Betonmortelcentrale De Mark B.V.	Oud-Gastel, NL		28.57	2020	1.8	0.3
Betotech GmbH, Baustofftechnisches Labor [6]	Nabburg, DE		72.08	2020	0.2	0.0
Betuwe Beton Holding B.V.	Tiel, NL		50.00	2020	7.5	1.9
C.V. Projectbureau Grensmaas	Born, NL		8.22	2020	10.3	1.9
Cugla B.V.	Breda, NL		50.00	2020	9.0	5.0
Dijon Béton S.A.	Saint-Apollinaire, FR		15.00	2020	8.9	0.4
Ernst Marschall GmbH & Co. KG Kies- und Schotterwerke	Kressbronn, DE		19.96	2020	4.0	0.8
Fertigbeton (FBU) GmbH & Co Kommanditgesellschaft Unterwittbach [6]	Kreuzwertheim, DE		57.14	2020	0.3	0.0
Heidelberger Beton Grenzland GmbH & Co. KG	Marktredwitz, DE		50.00	2020	0.4	1.4
Heidelberger Beton Inntal GmbH & Co. KG [6]	Altötting, DE		68.39	2020	0.6	1.9
ISAR-DONAU MÖRTEL-GmbH & Co. KG	Passau, DE		33.33	2020	0.7	0.2

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
Kronimus Aktiengesellschaft	Iffezheim, DE	24.90	24.90	2020	33.8	4.8
Kronimus SAS	Maizières-lès-Metz, FR		43.60	2020	5.1	1.0
Maasgrind B.V.	Maasbracht, NL		16.48	2020	0.6	0.3
Maasgrind Ontwikkeling B.V.	Maasbracht, NL		16.48	2020	0.1	0.0
Materiaux Traites du Hainaut S.A.	Antoing, BE		50.00	2020	0.6	0.0
MERMANS BETON N.V.	Arendonk, BE		50.00	2020	0.2	-0.3
Misburger Hafengesellschaft mit beschränkter Haftung	Hannover, DE	39.66	39.66	2020	1.7	0.2
Münchner Mörtel GmbH & Co. KG	München, DE		20.00	2020	0.1	0.1
Nederlands Cement Transport Cetra B.V.	Uithoorn, NL		50.00	2020	2.2	0.2
Panheel (Maatschappij tot Exploitatie van het Ontgrondingsproject Panheel) B.V.	Maasbracht, NL		16.48	2020	0.3	0.0
Peene Kies GmbH	Jarmen, DE		24.90	2020	3.1	0.0
Raunheimer Sand- und Kiesgewinnung Blasberg GmbH & Co. KG	Raunheim, DE		23.53	2020	0.5	0.4
Recybel S.A.	Flémalle, BE		25.50	2020	0.7	0.7
Recyfuel S.A.	Braine-l'Alleud, BE		50.00	2020	14.2	1.9
Stinkal S.a.s.	Ferques, FR		35.00	2020	-3.2	-2.3
Südbayerisches Portland-Zementwerk Gebr. Wiesböck & Co. GmbH	Rohrdorf, DE	23.90	23.90	2020	631.8	72.9
TBG Bayerwald Transportbeton GmbH & Co. KG	Fürstenzell, DE		50.00	2020	0.6	0.0
TBG Deggendorfer Transportbeton GmbH	Deggendorf, DE		33.33	2020	1.3	0.9
TBG Singen GmbH & Co. KG	Singen, DE		36.90	2020	0.1	-0.1
TBG Transportbeton Caprano GmbH & Co. KG	Heidelberg, DE		50.00	2020	0.3	0.2
TBG Transportbeton Gesellschaft mit beschränkter Haftung & Co. KG. Hohenlohe	Schwäbisch Hall, DE		25.00	2020	0.3	-0.1
TBG Transportbeton GmbH & Co. KG Betonpumpendienst [6]	Nabburg, DE		55.54	2020	0.8	1.0
TBG Transportbeton GmbH & Co.KG Lohr-Beton	Lohr am Main, DE		50.00	2020	0.2	0.1
Transbeton Gesellschaft mit beschränkter Haftung & Co Kommanditgesellschaft	Löhne, DE		27.23	2020	2.6	1.9
Transportbeton Johann Braun GmbH & Co. KG	Tröstau, DE		50.00	2020	0.5	0.4
V.o.F. Betoncentrale West-Brabant	Oud-Gastel, NL		50.00	2020	-2.1	-1.3
Van Zanten Holding B.V.	Leek, NL		25.00	2020	5.9	1.9
Zement- und Kalkwerke Otterbein GmbH & Co. KG	Großenlüder-Müs, DE	38.10	38.10	2020	3.3	0.8
Associates						
Northern and Eastern Europe-Central Asia						
LOMY MOŘINA spol. s r.o.	Mořina, CZ		48.95	2020	10.7	0.3
Ribe Betong AS	Kristiansand, NO		40.00	2020	3.2	1.7
SP Bohemia, k.s. [6]	Králův Dvůr, CZ		75.00	2020	10.0	0.6
Sylteosen Betong AS	Elnesvågen, NO		39.94	2020	2.7	0.7
TBG Louny s.r.o.	Louny, CZ		33.33	2020	1.0	0.3
TBG PKS a.s.	Žďár nad Sázavou, CZ		29.70	2020	3.2	0.4
TBG PODIVÍN s.r.o.	Brno, CZ		33.00	2020	0.7	0.1
Vassiliko Cement Works Ltd.	Nicosia, CY		25.94	2020	246.2	16.6
Associates						
North America						
Cemstone Products Company	Mendota Heights, US		36.09	2020	56.4	10.9
Cemstone Ready-Mix, Inc.	Mendota Heights, US		44.01	2020	9.8	1.0
Chaney Enterprises 2, LLC	Lothian, US		25.00	2020	27.1	3.9
Chaney Enterprises Limited Partnership	Lothian, US		25.00	2020	44.5	5.9
Innocon Inc.	Richmond Hill, CA		45.00	2020	34.0	0.6
Innocon Partnership	Richmond Hill, CA		45.00	2020	-11.2	1.8
RF Properties East, LLC	Lothian, US		25.00	2020	0.0	0.0
RF Properties, LLC	Lothian, US		25.00	2020	1.6	0.7
Southstar Limited Partnership	Lothian, US		25.00	2020	74.2	5.9
Sustainable Land Use, LLC	Lothian, US		25.00	2020	25.8	17.2

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
Associates						
Asia-Pacific						
PT Bhakti Sari Perkasa Bersama	Jakarta, ID		15.86	2020	0.8	0.3
PT Cibinong Center Industrial Estate	Bogor, ID		26.44	2020	5.5	1.3
PT Jaya Berdikari Cipta	Bogor, ID		26.44	2020	2.4	0.0
PT Pama Indo Mining	Jakarta, ID		21.15	2020	3.7	0.7
PT Tripa Semen Aceh [8]	Jakarta, ID		10.92	-	-	-

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
Associates						
Africa-Eastern Mediterranean Basin						
Asment Temara S.A.	Témara, MA		37.01	2020	76.8	25.3
CEMZA (PTY) LTD	Midrand, ZA		40.00	2021	11.4	2.4
Fortia Cement S.A.	Lomé, TG		50.00	2020	7.5	0.4
Tecno Gravel Egypt S.A.E.	Cairo, EG		31.57	2020	2.3	0.3

The following subsidiaries are reflected in the consolidated financial statements at cost due to their immateriality.

Company name	Corporate seat	HC AG direct ownership %	Group ownership %	Year [1]	Equity in € million [2]	Net income in € million [3]
Immaterial subsidiaries						
Western and Southern Europe						
3G JONICA S.C.A.R.L. [9]	Bergamo, IT		55.00	-	-	-
Azienda Agricola Lodoletta S.r.l.	Bergamo, IT		75.00	2020	1.0	0.2
Betonpumpen-Service Niedersachsen GmbH & Co. KG	Hannover, DE		100.00	2020	0.2	0.0
Betonpumpen-Service Niedersachsen Verwaltungs-GmbH	Hannover, DE		100.00	2020	0.0	0.0
Betotech Baustofflabor GmbH	Heidelberg, DE	100.00	100.00	2020	0.2	-0.1
CSPS Trustees Limited	Maidenhead, GB		100.00	2020	0.0	0.0
Drew Group Holdings Limited [8]	New Milton, GB		100.00	-	-	-
Entreprise Lorraine d'Agriculture - ELDA S.à r.l.	Heillecourt, FR		100.00	2020	0.1	0.0
Etablissement F.S. Bivois SARL	Strasbourg, FR		60.00	2020	0.2	0.0
Garonne Labo S.à r.l. [5]	St Léger, FR		40.05	2020	0.0	0.0
Hanson (ER-No 3) Limited [8]	London, GB		100.00	-	-	-
HConnect 2 GmbH	Heidelberg, DE		100.00	2020	0.0	0.0
HConnect GmbH	Heidelberg, DE		100.00	2020	0.0	0.0
HeidelbergCement Grundstücksverwaltungsgesellschaft mbH	Heidelberg, DE	100.00	100.00	2020	0.1	0.0
HeidelbergCement Holding GmbH [9]	Heidelberg, DE		100.00	-	-	-
HeidelbergCement Shared Services GmbH	Leimen, DE	100.00	100.00	2020	2.0	0.3
HeidelbergCement, Funk & Kapphan Grundstücksverwaltungsgesellschaft mbH	Heidelberg, DE	80.00	80.00	2020	0.0	0.0
Heidelberger Beton Donau-Naab Verwaltungsgesellschaft mbH	Burglengenfeld, DE		77.70	2020	0.0	0.0
Heidelberger Beton Gersdorf GmbH & Co. KG	Gersdorf, DE		65.00	2020	0.1	0.0
Heidelberger Beton Gersdorf Verwaltungs- und Beteiligungs-GmbH	Gersdorf, DE		65.00	2020	0.0	0.0
Heidelberger Beton Personal-Service GmbH	Heidelberg, DE		100.00	2020	0.1	0.0
Heidelberger Betonelemente Verwaltungs-GmbH	Chemnitz, DE		83.00	2020	0.1	0.0
Lindustries (D) Limited [8]	London, GB		100.00	-	-	-
Lithonplus Verwaltungs-GmbH	Lingenfeld, DE		60.00	2020	0.0	0.0
Matériaux de Boran S.A.	Tourcoing, FR		99.76	2020	0.0	0.0
MM MAIN-MÖRTEL GmbH & Co.KG	Kleinostheim, DE		84.19	2020	0.1	0.2
MM MAIN-MÖRTEL Verwaltungsgesellschaft mbH	Aschaffenburg, DE		84.19	2020	0.0	0.0
MS "Wesertrans" Verwaltungsgesellschaft mbH	Elsfleth, DE		75.00	2020	0.0	0.0
MTE Mineralstoff Terminal Emden GmbH	Emden, DE		60.00	2020	1.3	-0.1
NOHA Norddeutsche Hafenumschlagsgesellschaft mbH	Cadenberge, DE		60.00	2020	0.1	0.0
Rederij Cement-Tankvaart B.V.	Terneuzen, NL		66.64	2020	4.5	0.5
SBIC Limited [8]	Gibraltar, GI		100.00	-	-	-

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
SCI Bicowal	Strasbourg, FR		60.00	2020	0.0	0.0
SCI de Balloy	Avon, FR		100.00	2020	0.0	0.0
SCI du Colombier	Rungis, FR		63.00	2020	0.0	0.0
Société Civile d'Exploitation Agricole de l'Avesnois	Guerville, FR		80.00	2020	0.0	0.0
Société d'Extraction et d'Aménagement de la Plaine de Marolles SEAPM S.a.s.	Avon, FR		56.40	2020	0.8	-0.2
SPRL Ferme de Wisempierre	Antoing, BE		100.00	2020	1.7	0.0
TBM Transportbeton-Gesellschaft mbH Marienfeld & Co. KG	Harsewinkel, DE		87.50	2020	0.1	0.0
TBM Transportbeton-Gesellschaft mit beschränkter Haftung Marienfeld	Harsewinkel, DE		87.50	2020	0.0	0.0
Transportbeton Meschede Gesellschaft mit beschränkter Haftung	Meschede, DE		58.06	2020	0.0	0.0
Transportbeton Meschede GmbH & Co. KG	Meschede, DE		58.06	2020	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	2020	0.1	0.0
Agromir Sp. z o.o.	Górażdże, PL		100.00	2020	0.0	0.0
Agrowelt Sp. z o.o.	Górażdże, PL		100.00	2020	0.7	0.0
Azer-E.S. Limited Liability Company	Baku, AZ	100.00	100.00	2020	-4.0	-0.7
Bukhtarma TeploEnergo LLP	Oktyabrskiy village, KZ		100.00	2020	0.0	0.0
Bukhtarma Vodokanal LLP	Oktyabrskiy village, KZ		100.00	2020	0.0	0.0
Center Cement Plus Limited Liability Partnership	Nur-Sultan, KZ		100.00	2020	0.6	-0.2
Centrum Technologiczne Betotech Sp. z o.o.	Dąbrowa Górnicza, PL		100.00	2020	0.2	0.1
Českomoravská těžařská, s.r.o.	Mokrá-Horákov, CZ		100.00	2020	0.0	0.0
Donau Kies Bohemia Verwaltungs, s.r.o.	Pilsen, CZ		75.00	2020	0.0	0.0
Eurotech Cement S.h.p.k.	Durrës, AL		92.41	2020	-1.2	0.1
Fastighets AB Lövholmen 1	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets AB Lövholmen 2	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets AB Lövholmen 3	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets AB Lövholmen 4	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets AB Lövholmen 5	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets AB Lövholmen 6	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets AB Lövholmen 7	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets AB Lövholmen 8	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets AB Lövholmen 9	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets AB Lövholmen 10	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets AB Lövholmen 11	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets Söder om Kalkbrottet 1 AB	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets Söder om Kalkbrottet 2 AB	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets Söder om Kalkbrottet 3 AB	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets Söder om Kalkbrottet 4 AB	Stockholm, SE		100.00	2020	0.0	0.0
Fastighets Söder om Kalkbrottet Holding AB	Stockholm, SE		100.00	2020	0.0	0.0
Geo Nieruchomości Sp. z o.o.	Górażdże, PL		100.00	2020	0.1	0.0
Global IT Center, s.r.o.	Brno, CZ		100.00	2020	3.9	0.5
LLC HC Yug	Podolsk, RU		100.00	2020	-0.1	-0.1
MIXT Sp. z o.o.	Górażdże, PL		100.00	2020	0.8	0.0
Podgrodzie Sp. z o.o.	Raciborowice Górne, PL		100.00	2020	1.1	-0.3
Polgrunt Sp. z o.o.	Górażdże, PL		100.00	2020	2.1	0.4
Shqiperia Cement Company Shpk	Tirana, AL		100.00	2020	0.6	-0.1
TRANS-SERVIS,spol. s r.o.	Praha, CZ		100.00	2020	1.4	0.2

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
Immaterial subsidiaries						
North America						
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	-	-	-
Lucas Coal Company, Inc [8]	Harrisburg, US		100.00	-	-	-
Magnum Minerals, Inc. [8]	Harrisburg, US		100.00	-	-	-
PUSH NA Holdings, Inc. [8]	Wilmington, US		100.00	-	-	-
SunCrete Rooftile, Inc. [8]	Sacramento, US		100.00	-	-	-
Total Limited [8]	Wilmington, US		100.00	-	-	-
Immaterial subsidiaries						
Asia-Pacific						
Vesprapat Holding Co., Ltd. [4] [5] [8]	Bangkok, TH		49.00	-	-	-
Immaterial subsidiaries						
Africa-Eastern Mediterranean Basin						
C.N.A. - Cimentos Nacionais de Angola S.A. [8]	Luanda, AO		56.00	-	-	-
FOUNDATION HEIDELBERGCEMENT TOGO [8]	Lomé, TG		93.21	-	-	-
Intercom Libya F.Z.C. [8]	Misrata, LY		100.00	-	-	-
Suez for Import & Export Co S.A.E.	Cairo, EG		69.47	2020	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.

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
Immaterial joint arrangements and associates						
Western and Southern Europe						
Alzagri NV	Brugge, BE		50.00	2020	0.9	0.3
Asto Holding B.V.	Raamsdonksveer, NL		33.32	2020	1.7	0.4
Asto Investment B.V.	Raamsdonksveer, NL		33.32	2020	0.6	0.2
Auxerre Béton S.à r.l.	Guerville, FR		50.00	2020	0.3	0.2
Baustoff- und Umschlags-GmbH	Mosbach, DE		33.33	2020	0.3	0.1
Calcaires de la Rive Gauche I SPRL	Nivelles, BE		35.00	2020	3.9	-0.3
Canteras Aldoyar, S.L.	Olazagutia, ES		19.99	2020	1.9	0.2
Cava delle Capannelle S.r.l.	Almenno San Bartolomeo, IT		49.00	2020	0.1	-0.3
Cementi della Lucania S.r.l.	Potenza, IT		30.00	2020	0.0	-0.1
CI4C GmbH & Co. KG	Heidenheim an der Brenz, DE	25.00	25.00	2020	1.1	0.0
CI4C Verwaltungs GmbH	Heidenheim an der Brenz, DE		25.00	2020	0.0	0.0
Consorzio Stabile San Francesco S.C.A.R.L.	Foligno, IT		42.00	2020	0.1	0.0
Deltapav S.r.l.	Samarate, IT		45.01	2020	0.6	0.1
Donau Kies Verwaltungs GmbH [6]	Fürstenzell, DE		75.00	2020	0.0	0.0
DONAU MÖRTEL-Verwaltungs und-GmbH	Passau, DE		50.00	2020	0.0	0.0
Eurocalizas S.L. [8]	Meruelo, ES		33.31	-	-	-
Fertigbeton (FBU) Gesellschaft mit beschränkter Haftung [6]	Kreuzwertheim, DE		57.14	2020	0.0	0.0
GAM Greifswalder Asphaltmischwerke VerwaltungsGmbH	Greifswald, DE		30.00	2020	0.0	0.0
Generalcave S.r.l. - in liquidazione [4]	Fiumicino, IT		50.00	2020	0.0	0.0
GIE des Terres de Mayocq	Le Crotoy, FR		32.49	2020	0.0	0.0
GIE GM [6]	Guerville, FR		63.00	2020	0.0	0.0
GIE Loire Grand Large	Saint-Herblain, FR		26.00	2020	0.0	0.0
GIE Manche Est	Rouxmesnil-Bouteilles, FR		20.00	2020	0.0	0.0
GIE Sud Atlantique	La Rochelle, FR		50.00	2020	-0.1	0.0

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
Granulats Marins de Normandie GIE	Le Havre, FR		32.50	2020	-0.1	-0.1
Hafen- und Lagergesellschaft Greifswald mbH	Greifswald, DE		30.00	2020	0.3	0.2
Hafenbetriebs- und Beteiligungs-GmbH, Stade	Stade, DE		50.00	2020	0.1	0.0
Heidelberger Beton Donau-Iller Verwaltungs-GmbH [6]	Elchingen, DE		80.65	2020	0.1	0.0
Heidelberger Beton Grenzland Verwaltungs-GmbH	Marktredwitz, DE		50.00	2020	0.0	0.0
Heidelberger Beton Inntal Verwaltungs-GmbH [6]	Altötting, DE		68.39	2020	0.0	0.0
Heidelberger Beton Karlsruhe GmbH & Co. KG [4] [6] [8]	Karlsruhe, DE		50.30	-	-	-
Heidelberger Beton Karlsruhe Verwaltungs-GmbH [4] [6] [8]	Karlsruhe, DE		50.30	-	-	-
Heidelberger Beton Kurpfalz GmbH & Co. KG [4] [6] [8]	Eppelheim, DE		64.73	-	-	-
Heidelberger Beton Kurpfalz Verwaltungs-GmbH [4] [6] [8]	Eppelheim, DE		64.73	-	-	-
Heidelberger Betonpumpen Simonis Verwaltungs-GmbH [6]	Ubstadt-Weiher, DE		65.25	2020	0.0	0.0
Hormigones Olazti S.A [8]	Olazagutia, ES		24.99	-	-	-
Hormigones Txingudi S.A.	San Sebastián, ES		33.31	2020	0.1	0.0
ISAR-DONAU MÖRTEL-Verwaltungs-GmbH	Plattling, DE		33.33	2020	0.0	0.0
KANN Beton Verwaltungsgesellschaft mbH	Bendorf, DE		50.00	2020	0.1	0.0
KVB Kies- Vertrieb GmbH & Co. KG [4] [8]	Karlsdorf-Neuthard, DE		24.46	-	-	-
KVB Verwaltungs- und Beteiligungs-GmbH [4] [8]	Karlsdorf-Neuthard, DE		24.41	-	-	-
Les Quatre Termes S.a.s.	Salon-de-Provence, FR		50.00	2020	0.1	0.0
Les Sables de Mezieres S.a.s.	Saint-Pierre-des-Corps, FR		50.00	2020	0.3	0.1
Lippe-Kies GmbH & Co. KG	Delbrück, DE		50.00	2020	0.2	0.2
Lippe-Kies Verwaltungs GmbH	Delbrück, DE		50.00	2020	0.0	0.0
Mantovana Inerti S.r.l.	Castiglione delle Stiviere, IT		50.00	2020	2.2	0.1
Mendip Rail Limited	Markfield, GB		50.00	2020	0.2	-0.3
MS "Wesertrans" Binnenschiffsreederei GmbH & Co. KG [6]	Elsfleth, DE		68.75	2020	-0.2	0.0
Münchner Mörtel Verwaltungsges. mbH	München, DE		20.00	2020	0.0	0.0
Neuciclaje S.A.	Bilbao, ES		49.97	2020	-0.1	-0.2
Nordhafen Stade-Bützfleth Verwaltungsgesellschaft mbH	Stade, DE		20.00	2020	0.0	0.0
Otterbein Gesellschaft mit beschränkter Haftung	Großenlüder-Müs, DE	20.00	20.00	2020	0.0	0.0
Padyear Limited	Maidenhead, GB		50.00	2020	-0.2	0.0
Peters Cement Overslagbedrijf B.V.	Raamsdonksveer, NL		33.32	2020	1.2	0.1
Raunheimer Quarzsand Verwaltungsgesellschaft mbH	Raunheim, DE		50.00	2020	0.0	0.0
S.A.F.R.A. S.r.l. - in liquidazione [4] [8]	Bologna, IT		33.33	-	-	-
San Francesco S.c.a.r.l. in liquidazione [4]	Foligno, IT		45.71	2020	0.5	0.0
Sandkorn Verwaltungs GmbH	Nortorf, DE		25.00	2020	0.1	0.0
SCI de Barbeau	Bray-sur-Seine, FR		49.00	2020	0.0	0.0
SCI des Granets	Cayeux-sur-Mer, FR		33.33	2020	0.0	0.0
SCI La Motte au Bois	Harnes, FR		50.00	2020	0.0	0.0
Société Civile Bachant le Grand Bonval [6]	Guerville, FR		80.00	2020	0.0	0.0
Société Foncière de la Petite Seine S.a.s.	Saint-Sauveur-lès-Bray, FR		42.25	2020	0.1	0.0
TBG Bayerwald Verwaltungs-GmbH	Fürstenzell, DE		50.00	2020	0.0	0.0
TBG Ilm-Beton Verwaltungs-GmbH [6]	Arnstadt, DE		55.00	2020	0.0	0.0
TBG Singen Verwaltungs-GmbH	Singen, DE		36.90	2020	0.0	0.0
TBG Transportbeton Caprano Verwaltungs-GmbH	Heidelberg, DE		50.00	2020	0.0	0.0
TBG Transportbeton Gesellschaft mit beschränkter Haftung	Schwäbisch Hall, DE		25.00	2020	0.0	0.0
TBG Transportbeton Lohr Verwaltungsgesellschaft mbH	Lohr am Main, DE		50.00	2020	0.0	0.0
TBG Transportbeton Oder-Spree Verwaltungs-GmbH	Wriezen, DE		50.00	2020	0.0	0.0
TBG Transportbeton Reichenbach Verwaltungs-GmbH [6]	Reichenbach, DE		70.00	2020	0.1	0.0
TBG Transportbeton Verwaltungsgesellschaft mbH	Nabburg, DE		50.00	2020	0.0	0.0
TBG Transportbeton Werner Verwaltungsgesellschaft mbH	Dietfurt a.d. Altmühl, DE		38.85	2020	0.0	0.0
terravas GmbH	Königs Wusterhausen, DE		50.00	2020	0.0	0.0
Transbeton Gesellschaft mit beschränkter Haftung	Löhne, DE		27.23	2020	0.0	0.0

Company name	Corporate seat	HC AG direct owner-ship %	Group owner-ship %	Year [1]	Equity in € million [2]	Net income in € million [3]
Transportbeton Johann Braun Geschäftsführungs GmbH	Tröstau, DE		50.00	2020	0.0	0.0
Urzeit Weide GbR	Schelklingen, DE	50.00	50.00	2020	0.1	0.0
Verwaltungsgesellschaft mit beschränkter Haftung TRAPOBET Transportbeton Kaiserslautern	Kaiserslautern, DE		50.00	2020	0.0	0.0
Immaterial joint arrangements and associates						
Northern and Eastern Europe-Central Asia						
Björgun - Bygg ehf.	Reykjavík, IS		26.49	2020	0.0	0.0
Dobrotitsa BSK AD - in liquidation [4]	Dobrich, BG		26.38	2020	-1.2	0.0
Kalkkaia AS	Verdal, NO		50.00	2020	2.1	0.2
Velkolom Čertovy schody, akciová společnost	Tmaň, CZ		50.00	2020	6.7	0.1
Immaterial joint arrangements and associates						
North America						
KHB Venture LLC [8]	Waltham, US		33.33	-	-	-
Newbury Development Associates, LP [8]	Bridgeville, US		35.00	-	-	-
Newbury Development Management, LLC [8]	Bridgeville, US		35.00	-	-	-
Woodbury Investors, LLC [8]	Atlanta, US		50.00	-	-	-
Immaterial joint arrangements and associates						
Asia-Pacific						
Diversified Function Sdn Bhd	Kuala Lumpur, MY		50.00	2020	-0.1	0.0
Pornphen Prathan Company Limited [4] [8]	Bangkok, TH		49.70	-	-	-
Sanggul Suria Sdn Bhd	Kuala Lumpur, MY		45.00	2020	0.0	0.0
Immaterial joint arrangements and associates						
Africa-Eastern Mediterranean Basin						
Ceval GIE	Casablanca, MA		29.34	2020	0.0	0.0
Italcementi for Cement Manufacturing - Libyan J.S.C. [8]	Tripoli, LY		50.00	-	-	-
Suez Lime S.A.E.	Cairo, EG		35.02	2020	0.1	0.0
Union Cement Norcem C.o. (LLC)	Ras Al Khaimah, AE		40.00	2020	2.3	1.6

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, 23 March 2022

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 group 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 2021, 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 2021, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of HeidelbergCement AG, which is combined with the Company's management report, – which comprise the content included to comply with the German legal requirements as well as the remuneration report pursuant to § [Article] 162 AktG [Aktiengesetz: German Stock Corporation Act], including the related disclosures, included in section "Remuneration report" of the group management report – for the financial year from 1 January to 31 December 2021. In accordance with the German legal requirements, we have not audited the content of those parts of the group 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 § 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 2021, and of its financial performance for the financial year from 1 January to 31 December 2021, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group 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 group management report does not cover the content of those parts of the group 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 group management report.

Basis for the Audit Opinions
We conducted our audit of the consolidated financial statements and of the group 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 Group 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 group 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 2021. 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 8,164.7 million (24.2% of total assets or 49.0% 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 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 did not result in any need for impairment.

   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 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 evaluated the parameters used to determine the discount rate applied, and assessed the calculation 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 to 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 notes to the consolidated financial statements 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 relating to the "Goodwill" balance sheet item are contained in section "9.1 Intangible Assets" of the notes to the consolidated financial statements.

2 Accounting treatment of deferred taxes

a) In the consolidated financial statements of the Company deferred tax assets amounting to EUR 262.9 million after netting are reported. Deferred tax assets amounting to EUR 1.119,9 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 109.6 million), tax loss carryforwards (EUR 2,646.3 million), as well as interest carryforwards (EUR 508.8 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 "7.11 Income taxes" of the notes to the consolidated financial statements.

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 amounts of these 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 evaluating tax matters and the accounting presentation of obligations arising from tax matters. 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 evaluated the appropriateness of the determination of the obligations and the accounting 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 at 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 the current and non-current income tax liabilities are contained in section "7.11 Income taxes" of the notes to the consolidated financial statements and the disclosures on contingent liabilities in section 11.2 of the notes to the consolidated financial statements and additionally in the paragraph on "Tax risks" in the "Risk and opportunity report" section of the group management report.

Other Information

The executive directors are responsible for the other information. The other information comprises the following non-audited parts of the group management report:

- the statement on corporate governance pursuant to § 289f HGB and § 315d HGB included in section "Corporate Governance statement" of the group management report
- the non-financial statement pursuant to § 289b Abs. 1 HGB and § 315b Abs. 1 HGB, included in section "Non-financial statement" of the group management report

The other information comprises further all remaining parts of the annual report – excluding cross-references to external information – with the exception of the audited consolidated financial statements, the audited group management report and our auditor's report.

Our audit opinions on the consolidated financial statements and on the group 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 group 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 Group 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 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 group 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 group 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 group 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 group management report.

The executive directors and the supervisory board are further responsible for the preparation of the remuneration report, including the related disclosures, which is included in a separate section of the group management report and complies with the requirements of § 162 AktG. They 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 for the Audit of the Consolidated Financial Statements and of the Group 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 group 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 group 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 group 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 group 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 group 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 group 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 group 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 group 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 group 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, the related safeguards.

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 Group 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 group management report (hereinafter the "ESEF documents") contained in the electronic file HeidelbergCement_AG_KA_ZLB_ESEF-2021-12-31.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 group 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 group 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 group management report for the financial year from 1 January to 31 December 2021 contained in the "Report on the Audit of the Consolidated Financial Statements and on the Group 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 group 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 (10.2021)) 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 group 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 applicable as at the balance sheet date 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 group 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 6 May 2021. We were engaged by the supervisory board on 7 June 2021. We have been the group auditor of 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 group management report as well as the assured ESEF documents. The consolidated financial statements and the group management report converted to the ESEF format – including the versions to be published in the Federal Gazette – are merely electronic renderings of the audited consolidated financial statements and the audited group 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 Group 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, 23 March 2022

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

(sgd. Dr Ulrich Störk) Wirtschaftsprüfer (German Public Auditor)	(sgd. Thomas Tilgner) Wirtschaftsprüfer (German Public Auditor)

Independent practitioner’s report on a limited assurance engagement on non-financial reporting [1)]

To HeidelbergCement AG, Heidelberg

We have performed a limited assurance engagement on the combined non-financial statement of HeidelbergCement AG, Heidelberg, (hereinafter the “Company”) for the period from 1 January to 31 December 2021 (hereinafter the “Combined Non-financial Statement”) included in section “Non-financial Statement” of the combined management report.

Not subject to our assurance engagement are the external sources of documentation or expert opinions mentioned in the Combined Non-financial Statement.

Responsibilities 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.

This responsibility includes the selection and application of appropriate non-financial reporting methods and making assumptions and estimates about individual non-financial disclosures of the Group that are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal controls as the executive directors consider necessary to enable the preparation of a Combined Non-financial Statement that is free from material misstatement whether due to fraud 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.

Responsibility of the Assurance Practitioner
Our responsibility is to express a conclusion with limited assurance on the Combined Non-financial Statement 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 Company’s Combined Non-financial Statement, other than the external sources of documentation or expert opinions mentioned in the, are not prepared, in all material respects,

1) PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the combined non-financial statement 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.

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. 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 about the preparation process, about the internal control system relating to this process and about disclosures in the Combined Non-financial Statement
- Identification of likely risks of material misstatement in the Combined Non-financial Statement
- Analytical procedures on selected disclosures in Combined Non-financial Statement
- Reconciliation of selected disclosures with the corresponding data in the consolidated financial statements and group management report
- Evaluation of the presentation of the Combined Non-financial Statement
- Evaluation of the process to identify taxonomy-eligible economic activities and the corresponding disclosures in the Combined Non-financial Statement
- Inquiries on the relevance of climate-risks
- Use of the work of a practitioner´s verification of indicators on accident trends, climate protection and emission control accordingly to the criteria as set out by GCCA (Global Cement and Concrete Association).

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 of the Company for the period from 1 January to 31 December 2021 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.

We do not express an assurance opinion on the external sources of documentation or expert opinions mentioned in the Combined Non-financial Statement.

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, 23 March 2022

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Nicolette Behncke ppa. Annette Maria Daschner
Wirtschaftsprüfer
(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, 23 March 2022

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

5 i Additional information

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
HeidelbergCement reports specific net CO_2 emissions in kg per tonne of cementitious material. In addition to cement, this includes materials with cement-like properties. HeidelbergCement 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.

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.

EMTN programme
An EMTN (Euro Medium Term Note) programme represents a framework agreement made between the company and the banks appointed to be dealers. HeidelbergCement 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.

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.

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.

Syndicated loan
Large-sized loan which is distributed (syndicated) among several lenders for the purpose of risk spreading.

Cement capacities as well as aggregates reserves and resources

Cement capacities[1]	Million tonnes
Western and Southern Europe	
Belgium	**4.0**
France	**7.1**
Germany	**10.9**
Italy	**10.3**
Netherlands	**2.4**
Spain	**2.7**
United Kingdom	**6.1**
	43.4
Northern and Eastern Europe-Central Asia	
Bulgaria	**2.3**
Czechia	**2.6**
Estonia	**0.9**
Greece	**0.8**
Kazakhstan	**4.0**
Norway	**1.9**
Poland	**5.3**
Romania	**6.2**
Russia	**4.7**
Sweden	**2.7**
	31.7
North America	
Canada	**4.1**
USA	**11.2**
	15.2
Asia-Pacific	
Bangladesh	**3.8**
Brunei	**0.4**
India	**12.1**
Indonesia	**24.7**
Thailand	**5.8**
	46.7
Africa-Eastern Mediterranean Basin	
Benin	**0.5**
Burkina Faso	**1.4**
DR Congo	**0.8**
Egypt	**9.7**
Ghana	**4.1**
Liberia	**0.7**
Morocco	**4.9**
Mozambique	**0.3**
Sierra Leone	**0.5**
Tanzania	**2.0**
Togo	**1.9**
	26.2
Total HeidelbergCement	**163.3**

Cement capacities of joint ventures[2]	Million tonnes
Australia	**2.4**
Bosnia-Herzegovina	**0.4**
China	**8.4**
Georgia	**1.0**
Hungary	**1.5**
South Africa	**0.3**
Turkey	**2.9**
USA (Texas)	**0.5**
Total joint ventures	**17.4**
HeidelbergCement incl. joint ventures	**180.7**

Aggregates reserves and resources[3] Billion tonnes	Reserves	Resources	Total
Western and Southern Europe	1.1	1.9	3.0
Northern and Eastern Europe-Central Asia	0.8	0.4	1.2
North America	4.6	7.3	11.9
Asia-Pacific	1.2	1.5	**2.7**
Africa-Eastern Mediterranean Basin	0.02	0.06	**0.1**
HeidelbergCement total	**7.7**	**11.2**	**18.9**

1) Operational capacities based on 80 % calendar time utilisation.
2) Cement capacities according to our ownership.
3) Defined in the PERC Reporting Standard for mineral reserves and resources, see page 78 in the Risk and opportunity report.

Financial calendar

Financial calendar	
First quarter 2022 results	12 May 2022
Annual General Meeting 2022	12 May 2022
Capital Markets Day	24 May 2022
Second quarter 2022 results	28 July 2022
Third quarter 2022 results	3 November 2022

Contact:

Group Communication
Phone: +49 6221 481-13227
Fax: +49 6221 481-13217
E-mail: info@heidelbergcement.com

Investor Relations
Phone:
Institutional investors: +49 6221 481-13925, +49 6221 481-41016 and +49 6221 481-39670
Private investors: +49 6221 481-13256
Fax: +49 6221 481-13217
E-mail: ir-info@heidelbergcement.com

Imprint

Copyright © 2022
HeidelbergCement AG
Berliner Strasse 6
69120 Heidelberg, Germany

Concept and realisation
Group Communication & Investor Relations HeidelbergCement
ServiceDesign Werbeagentur GmbH, Heidelberg, Germany
Target Languages GmbH, Heidelberg, Germany

Photographs
Felix Bäcker, page 5
Fotofabrik Stuttgart, page 8
Lossen Fotografie, pages 14 und 16
Dag Jensen, page 16
Susanne Wegner, page 17
Steffen Fuchs, page 17

This Annual Report – in German and English – is only available electronically on the Internet: **www.heidelbergcement.com**.
There, you will also find the 2021 financial statements of HeidelbergCement AG and further information about HeidelbergCement.

Translation of the Annual Report 2021. The German version is binding. The Annual Report 2021 was published on 24 March 2022.

HeidelbergCement AG
Berliner Strasse 6
69120 Heidelberg, Germany
www.heidelbergcement.com