

The background is a solid teal color. A thick, dark teal curved line starts from the top left and curves towards the bottom right. Below this line, a series of thin, parallel teal lines radiate from the bottom left towards the top right, creating a sense of depth and movement.

Aligning disclosures with the Climate Action 100+ Net Zero Company Benchmark

November 2022



Capital allocation alignment with carbon reduction targets

Aligning future investments with carbon reduction targets

Heidelberg Materials is working intensively to decarbonise its business. The company commits to align future investment projects with its ambitious long-term carbon reduction targets. As a signee of the Race to Zero initiative, Heidelberg Materials is committed to reach net zero carbon emissions status latest by 2050, which meets the criteria to fulfill the 1.5°C Paris Agreement. This commitment comprises the decarbonisation of all production processes at most of its sites, including future portfolio add-ons. Consequently, Heidelberg Materials has already put all necessary measures in place to assess the impact of the carbon footprint of an investment project on the overall carbon footprint of the company.

In this context, Heidelberg Materials also evaluates the improvement potential, especially in acquisition projects, based on the expected carbon emission reduction potential. In case a project will not have an immediate positive effect on the company's carbon footprint, an appropriate roadmap to improve the footprint will be put in place. Only if the overall evaluation indicates that the project will not jeopardise the 2050 net zero carbon emissions target, the project will be recommended for execution to the Managing Board and the Supervisory Board, respectively.

Methodology

Heidelberg Materials has developed and implemented a detailed and strictly managed process to assess the impact of future investment projects on its 2050 net zero target. The process consists of a thorough analysis of the carbon emission reduction potential of each production site including the capex for required technical and resource related upgrades or other measures for improvement. Those measures are developed and recommended by the local management teams supported by the Heidelberg Materials Competence Centers Cement, Aggregates & Asphalt and/or Ready-Mix. They provide a full-scope analysis of the actual reduction potential and related technical, operational, and organisational measures, the capex and opex analysis linked to their implementation as well as the timeline until the full reduction potential will be delivered.

The group-wide aligned primary metric for measuring the status quo and project related improvement potentials is "kg CO₂ per tonne of cementitious material produced". A bottom-up carbon footprint reduction roadmap was implemented on Group and country levels and includes the status quo as well as the intended project related improvement effects. The forecast provided by the roadmap is benchmarked quarterly against the actual footprint development to assure that



all relevant measures deliver the expected results. This detailed roadmap covers the period until 2030, including the committed targets for 2026 and 2030. For the time until 2050, key levers to achieve the committed net zero status have been identified, including the defined milestones along the way. The reconfirmed 2030 carbon reduction targets were submitted to the Science Based Targets Initiative (SBTi) for validation in line with the 1.5°C scenario. Heidelberg Materials has actively contributed to the development of the new 1.5°C framework and, in 2019, was the first company in the cement sector to have its then targets endorsed by the SBTi. The feedback by SBTi is expected to be given by the end of 2022.

Additionally, Heidelberg Materials has set new ambitious targets in May 2022. Those enable the Group to be EU Taxonomy aligned in 2030. The Annual Report for the financial year 2021 includes information on the eligibility of our activities. In line with the EU regulation, full taxonomy reporting will be included in the 2022 Annual Report. Nonetheless, Taxonomy's requirements are already taken into account for our future capital expenditures.

1.5° Celsius scenario

Heidelberg Materials has upgraded its capex guidance for the period 2022 to 2030 to reach its new targets set for 2030.

The company is allocating €100-150 million p.a. specifically for the decarbonisation of its operations with conventional measures, an increase of €50-100 million. Those measures include activities to improve the process excellence and innovation, to increase the alternative fuel rate and biomass usage, to decrease the clinker incorporation, and to advance supplementary cementitious material projects. All key projects are defined and in execution including a dedicated roadmap on plant level to reduce CO₂ emissions per tonne of clinker/cement. At the same time, other investment projects (notably major plant modernisations) may also contribute to the overall achievement.

Furthermore, Heidelberg Materials has dedicated up to €1.5 billion for its share in the CCUS projects that will significantly contribute to the achievement of the CO₂ reduction targets in 2030. In the years 2022-2025, the average CCUS capex spent is expected to be around €100-150 million. In the following period 2025-2030, the amount is indicated to be around €200 million p.a. on average.

For the time after 2030, the most suitable decarbonisation technologies are yet to be assessed. Hence, an appropriate capex figure is yet to be determined. Some technologies are already available to be scaled up for industrial usage but are yet to be tested under real process conditions, like the post combustion technology. Others, like the Oxyfuel or Leilac technologies, are still at an earlier stage and need further development until being upscaled to the required capacities. Therefore, reliable capex requirement for the time after 2030 cannot be determined yet.



Comparable to any other investment decisions in new technologies, the technological readiness and effectiveness as well as speed of implementation and expected operational reliability are important criteria within the investment decision and capital allocation process. The investments in new technologies like Leilac or Oxyfuel proved that Heidelberg Materials is willing to invest appropriate resources in the development of new and innovative technologies. One example is the enzyme-based capture technology tested within in the ACCSESS project at our Gorazdze plant in Poland. Furthermore, our newly launched ANRAV CCUS project in Bulgaria has been selected for Grant Agreement Preparation by the EU Innovation Fund which means that the project's implementation will be supported. Additionally, we have signed a global licence agreement with Leilac enabling the further scale-up of the joint CCUS activities.

Nevertheless, history has shown that any new technology being rolled out and upgraded to standard will lead to significant decreases of capex and opex. Heidelberg Materials assumes that it can profitably decarbonise its production sites (i.e., capex and opex ultimately covered by customers' willingness to pay). This assumption does not include upsides from a downsizing adjustment of the production plant portfolio, federal or state granted support schemes for the conversation, nor the inclusion of carbon prices into the product price scheme.

The required investment schedule from Heidelberg Materials will be in accordance with local regulations and requirements. Thereby, it is assumed that those regulations will allow an aligned gradation of the required modifications that are needed to achieve the net zero target latest by 2050.

Carbon capture, utilisation and/or storage (CCUS)

Cement is a carbon intensive product. As the carbon results from the chemical reaction when burning the limestone, a certain amount of carbon will always be released during production. Therefore, Heidelberg Materials sees carbon capture, utilisation and/or storage as a non-controversial pathway to reach net zero.

The company's first and most mature (on an industrial scale) CCS project in Brevik, Norway, is coming on stream in 2024. Brevik is one of several cement plants where Heidelberg Materials is currently testing different technologies and solutions to substantially reduce CO₂ emissions. The so far biggest project in Mitchell, Indiana, was granted with funding for the upcoming FEED study by the U.S. Department of Energy. The study will evaluate the feasibility of the project which aims to capture 95% or approximately 2 million tonnes of the plant's CO₂ emissions. Another example is the CCS project at the Slite cement plant on the Swedish island of Gotland, announced in June 2021. The plant could potentially capture 1.8 million tonnes of CO₂. Overall, Heidelberg Materials targets CO₂ reductions of 10 million tonnes cumulative with several CCUS projects already underway by 2030.



Additionally, the company has set targets to reduce the clinker ratio in Cement and replace the clinker with Supplementary Cementitious Material (SCM) to a certain limit possible.

Accounting alignment

In line with the IFRS accounting framework applied by Heidelberg Materials, the company commits to Paris aligned accounting of climate related impacts and its consequences on the company as recommended by investors.

Additionally, with a combined Annual Report for fiscal year 2022, Heidelberg Materials will include the reporting standards Task Force on Climate-Related Financial Disclosures (TCFD), Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), and full EU Taxonomy reporting in one document.