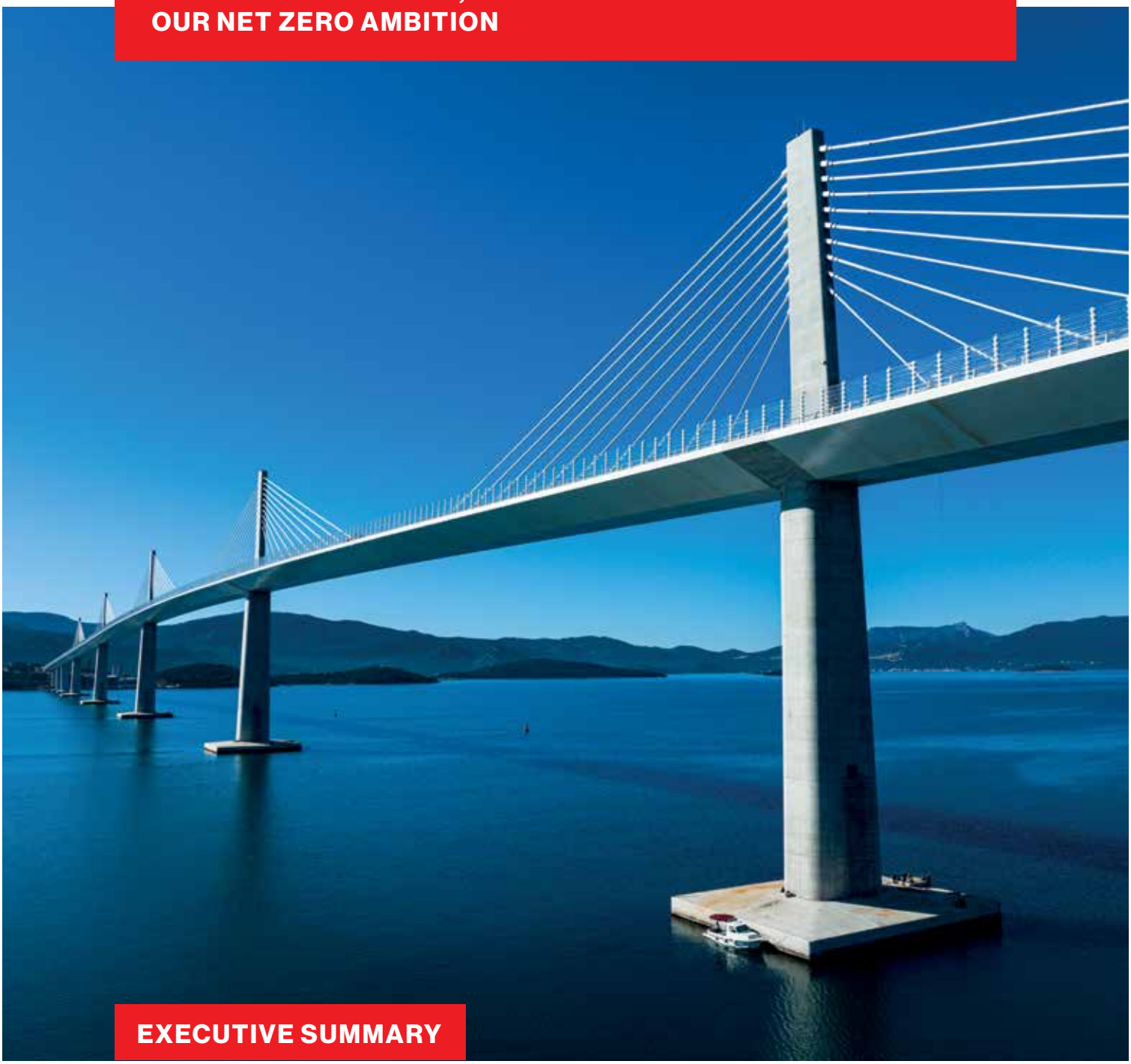
CEMBUREAU
The European Cement Association

From Ambition to Deployment

THE ROAD TRAVELLED, PATHWAYS AND LEVERS TO SCALE UP OUR NET ZERO AMBITION



EXECUTIVE SUMMARY

An increased ambition

"Significant financial investments are required to deliver our roadmap's ambition. It is indispensable to put funding structures in place and provide a clear business case for investments."

- **Cement is a strategic material for Europe, and its end-product concrete is the backbone of society.** It is a vital material to build and renovate the buildings we live in, meet our energy and transportation needs, and maintain the infrastructure that keeps us safe.
- In May 2020, **CEMBUREAU issued its carbon neutrality roadmap**, setting out the sector's ambition to reach net zero emissions along the cement and concrete value chain by 2050.
- **Four years on, we decided to take stock of where we are** and to revise our level of ambition based on our progress, the evolution of technology and the deployment of investments.
- Our message is clear: **the European cement industry has now moved from ambition to deployment**. Significant investments are happening throughout the cement and concrete value chain.
- Such progress has allowed us **to increase our ambition at a 2030 horizon and suggest an ambitious CO_2 emissions' objective for 2040**. We also looked at the potential for negative emissions over the value chain by 2050.
- However, this ambition will only materialise if the sector is supported by a robust regulatory framework. Throughout our roadmap, **we highlight the indispensable policy measures to provide a business case for decarbonisation and further accelerate investments**.

Compared to 1990, our roadmap estimates

-37%

of CO_2 emissions on cement by 2030

-78%

of CO_2 emissions on cement by 2040

-100%

of CO_2 emissions on cement by 2050

What has changed as compared to our 2020 roadmap

- Based on our progress to date (53% in 2021), we have increased our alternative fuel objectives for 2050 from 90% to 95%.
- We have revised the clinker substitution ambition for 2050 to achieve a clinker to cement ratio of 60%, compared to 65% in the initial roadmap. Sufficient availability of clinker substitution materials will be a key driver in reaching this objective.
- A more detailed breakdown of CCUS volumes has been developed. Given the planned investments, we now have included a 2030 estimate for CCUS deployment.
- We have included 2040 objectives for all levers to be able to track our progress and assess how we can align with the EU's objectives.

More ambitious 2030 objectives

Substantial investments have allowed us to set more ambitious reduction objectives for 2030. In 2020, we had planned for a CO_2 emissions reduction of 30% on cement and 40% down the value chain. We have now revised this overall number to 37% on cement and 50% down the value chain.

Strong 2040 ambition for the cement sector

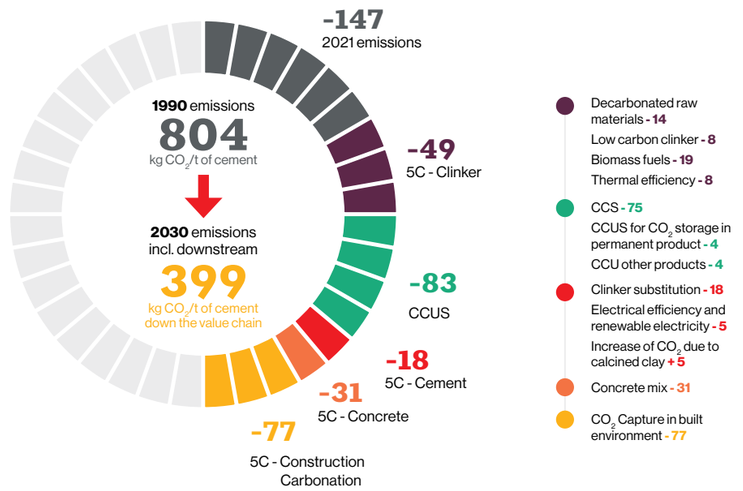
By combining all levers, we estimate a 78% reduction of CO_2 emissions on cement by 2040, and of 93% down the value chain.

Potential for negative emissions over the value chain by 2050

With the ambition to reach net zero emissions on cement by 2050, the sector has the potential to become carbon negative over the value chain.

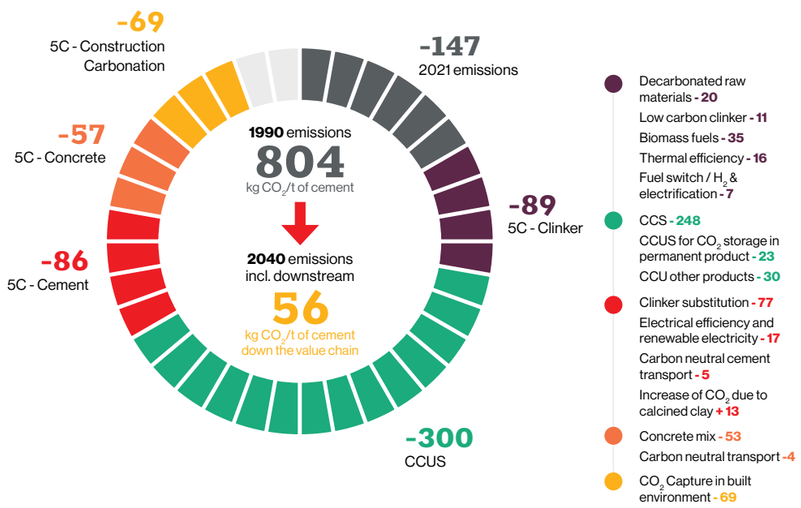
CEMBUREAU **2030** roadmap

CO_2 reductions along the cement value chain (5Cs: clinker, cement, concrete, construction, carbonation)



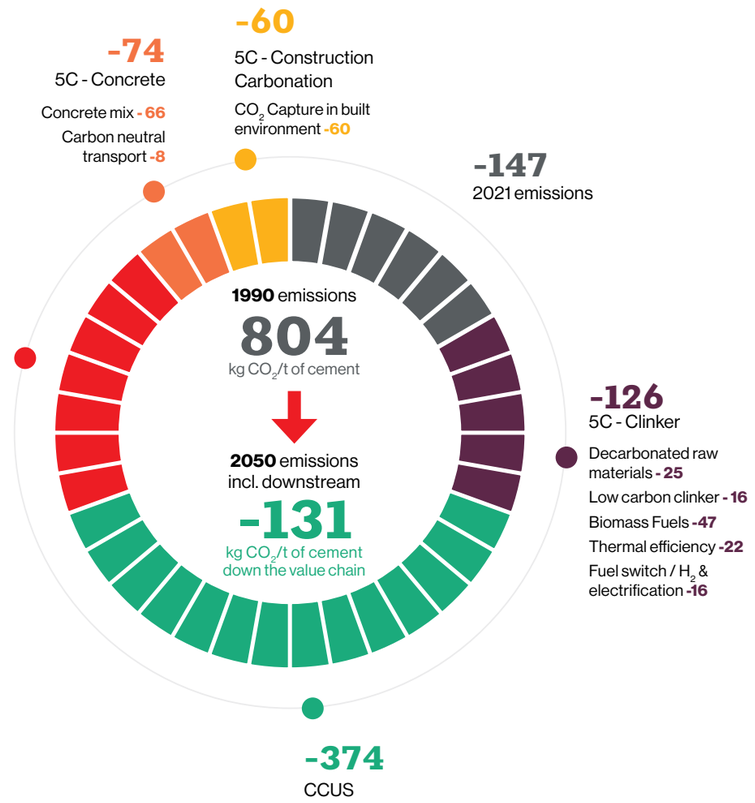
CEMBUREAU **2040** roadmap

CO_2 reductions along the cement value chain (5Cs: clinker, cement, concrete, construction, carbonation)



CEMBUREAU **2050** roadmap

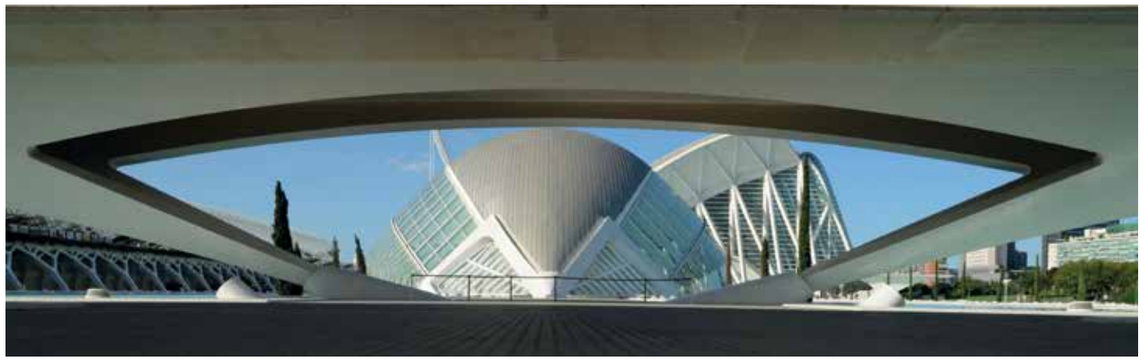
CO_2 reductions along the cement value chain (5Cs: clinker, cement, concrete, construction, carbonation)



The key role of EU policy

Our roadmap shows what the EU cement industry can achieve in terms of CO_2 emissions reduction at a 2030, 2040 and 2050 horizon. However, this ambition will only materialise if the sector is supported by a robust regulatory framework, as well as by a strengthening of EU competitiveness.

Decisive political action must be taken by EU and national policy-makers to deploy net zero technologies. De-risking projects in the early breakthrough period (next 5-15 years) is key. We need an industrial policy to complement the Green Deal and a close coordination between all parts of government with a focus on permitting, clean energy, infrastructure, market incentives, funding and skills to facilitate decarbonisation investments.



The following policies are indispensable to realise our ambition:

Implementing a watertight Carbon Border Adjustment Mechanism (CBAM) to level the playing field on CO_2

- Closely align CBAM with the rules of the EU Emission Trading Scheme (ETS) to ensure that EU industries and third countries compete under the same rulebook.
- Prevent CBAM fraud and evasion through robust monitoring systems and ensure a uniform implementation of CBAM across the EU, through close collaboration with national customs authorities.
- Develop an export solution that adheres to WTO regulations while protecting the EU industry against carbon leakage on exports.

Ramping up financial support for investments

- Transform the ETS Innovation Fund into a genuine Cleantech Deployment Fund for energy-intensive sectors. Requiring an 'innovative aspect' for each project runs counter to the deployment phase we are in.
- Allocate at least 75% of the future payments by the cement sector into the EU ETS (approximately €80-100bn by 2034) through frontloading in a dedicated “cement fund” to help finance the deployment of large-scale transformation projects.
- Turn the National Energy and Climate Plans into proper industrial decarbonisation plans, with key measures to facilitate investments and de-risk projects (e.g. through Contracts for Difference).
- Pool national and European finance resources and provide support (covering both CAPEX and OPEX) through simple and coordinated procedures, adopting a one-stop-shop approach.

Guarantee access to affordable decarbonised energy, infrastructure and raw materials

- Provide access to decarbonised energy at a reasonable price.
- Introduce a sandbox/simplified permitting regime for the deployment of renewables on industrial sites.
- Support power prices stability and protect industrial customers in case of spike.
- Boost the internal electricity market through stronger interconnection.
- Provide fair access to CO_2 transport and storage infrastructure.
- Ensure continued access to sustainable bio-waste, alternative waste streams and raw materials.

Create lead markets for low carbon, circular products

- Define an EU low-carbon products strategy that sets a clear ambition for their uptake in 2030/2040 and supports the establishment of private buyer initiatives.
- Review public procurement rules and standards to create lead markets for low CO_2 products.
- Encourage demand incentives through progressive, predictable and material-neutral building regulations.
- Make a step change on the circular economy: ban the landfilling of waste, incentivise recycling processes, support the use of waste in industries and encourage circularity and life cycle thinking throughout the construction value chain.
- Recognise concrete carbonation and CO_2 use in construction materials as a carbon sink.

CEMBUREAU
The European Cement Association

CEMBUREAU

@CEMBUREAU

Cementing Europe's Future

@CEMBUREAU

Discover the complete 2050 roadmap

www.cembureau.eu