

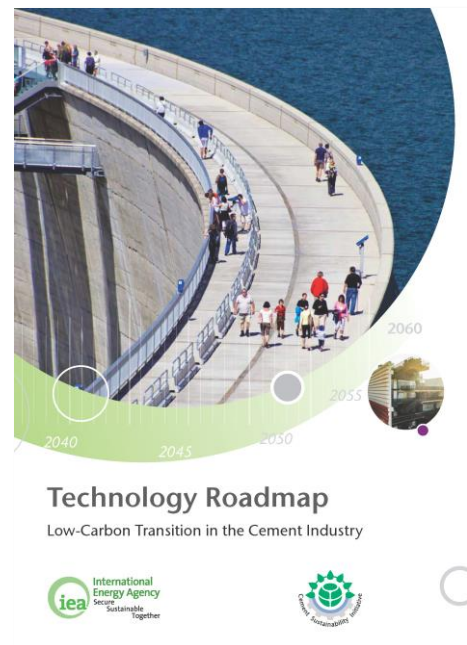
Cement technology roadmap plots path to cutting 24% of CO₂ emissions by 2050

Joint low-carbon technology roadmap by IEA and the CSI outlines investment and policy needs to meet global emissions reduction targets in cement production

Paris and Geneva – 6 April 2018: A combination of technology and policy solutions could provide a pathway to reducing direct carbon dioxide emissions from the cement industry by 24% below current levels by 2050, according to a new report by the [International Energy Agency \(IEA\)](#) and the [Cement Sustainability Initiative \(CSI\)](#).

The technology roadmap, called *Low-Carbon Transition in the Cement Industry*, updates the first global – sectoral roadmap produced in 2009. It aims to identify and develop international collaborative efforts and provide evidence for public and private sector decision-makers to move towards a more sustainable cement sector that can contribute to long-term climate goals.

The cement sector is the third-largest industrial energy consumer in the world, responsible for 7% of industrial energy use, and the second industrial emitter of carbon dioxide, with about 7% of global emissions. Cement is the key ingredient of concrete – which is used to build homes, schools, hospitals and infrastructure, all of which are important for quality of life, social and economic wellbeing.



As global population rises and urbanization grows, global cement production is set to increase between 12 to 23% by 2050. Despite increasing efficiencies, direct carbon emissions from the cement industry are expected to rise by 4% globally by 2050 under the IEA Reference Technology Scenario (RTS), a base case scenario that takes into account existing energy and climate commitments under the Paris Agreement. Realising the IEA's more ambitious 2°C Scenario (2DS) by 2050, which seeks to limit average global temperature increases to 2°C, implies significantly greater efforts to reduce emissions from cement makers.

The low-carbon transition of the cement industry can only be reached with a supportive regulatory framework as well as effective and sustained investments. Meeting the RTS already requires additional cumulative investments compared to the status quo. Achieving the transformation described by the 2DS could mean up to a doubling of these investments compared to the RTS. Governments, in collaboration with industry, can play a determinant role in developing policy and regulatory mechanisms that unlock the private finance necessary for such a boost in investment.

As a flagship sectoral project of the [World Business Council for Sustainable Development \(WBCSD\)](#), the CSI is a global effort currently gathering 24 major cement producers having operations in more than 100 countries and who have integrated sustainable development into their business strategies and operations.

“The cement industry is a major part of the global economy, but also an important source of global energy demand and carbon emissions. It is therefore essential that policy-makers and industry work together to ensure best-practices are adopted that put the industry on a long-term sustainable path that is compatible with our long-term climate goals,” said Dr. Fatih Birol, the IEA’s Executive Director.

Mr. Philippe Fonta, Managing Director, CSI of WBCSD added, *“The CSI is delighted and proud to have developed this roadmap update in partnership with the IEA. The first exercise carried out in 2009 had demonstrated its added value to help the sector identify solutions and enablers to reduce its CO₂ emissions and it was essential to adjust this projection with the latest robust emissions data from the CSI’s Getting The Numbers right (GNR) database and the potential of latest technologies developed by the European Cement Research Academy (ECRA).”*

The roadmap uses a bottom-up approach to explore a possible transition pathway based on least-cost technology analysis for the cement industry to reduce its direct CO₂ emissions in line with the IEA’s 2DS. Reaching this goal would require a combination of technology solutions, supportive policy, public-private collaboration, financing mechanisms and social acceptance.

Improving energy efficiency and switching to alternative fuels, in combination with reducing the clinker content in cement and deploying emerging and innovative technologies like carbon capture and the use of alternative binding materials are the main carbon-mitigation methods available in cement manufacturing.

Further emissions savings can be achieved by taking into account the overall life cycle of cement, concrete and the built environment. This can include optimising the use of concrete in construction by maximising design life of buildings and infrastructures, encouraging reuse and recycling, reducing waste and benefiting from concrete’s properties to minimise energy needs for heating and cooling of buildings.

The roadmap outlines policy priorities and regulatory recommendations, discusses investment stimulating mechanisms and describes technical challenges with regard to research, development and demonstration.

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About the International Energy Agency (IEA)

The International Energy Agency, the global energy authority, was founded in 1974 to help its member countries co-ordinate a collective response to major oil supply disruptions. Its mission has evolved and rests today on three main pillars: working to ensure global energy security; expanding energy cooperation and dialogue around the world; and promoting an environmentally sustainable energy future.

www.iea.org

About the Cement Sustainability Initiative (CSI)

The Cement Sustainability Initiative is a global effort by 24 leading cement producers, with operations in more than 100 countries. Range in size from very large multinationals to smaller local producers, these companies collectively account for around 30% of the world's cement production. All CSI members have integrated sustainable development into their business strategies and operations, as they seek strong financial performance with an equally strong commitment to social and environmental responsibility. The CSI is an initiative of the World Business Council for Sustainable Development (WBCSD).

www.wbcdcement.org; www.wbcd.org/Projects/Cement-Sustainability-Initiative

About the World Business Council for Sustainable Development (WBCSD)

WBCSD is a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. We help make our member companies more successful and sustainable by focusing on the maximum positive impact for shareholders, the environment and societies.

Our member companies come from all business sectors and all major economies, representing combined revenues of more than \$8.5 trillion and 19 million employees. Our global network of almost 70 national business councils gives our members unparalleled reach across the globe. WBCSD is uniquely positioned to work with member companies along and across value chains to deliver impactful business solutions to the most challenging sustainability issues.

Together, we are the leading voice of business for sustainability: united by our vision of a world where more than 9 billion people are all living well and within the boundaries of our planet, by 2050.

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