

## CALL FOR A JOINT EFFORT ACROSS THE VALUE CHAINS

### *CEMBUREAU reaction paper to the European Commission's strategic long-term vision "A Clean Planet for all"*

**Brussels 28 November 2018** - CEMBUREAU, the European Cement Association, supports the European Commission in its efforts to meet the Paris Agreement objectives. The European cement industry shares the vision for a carbon neutral Europe. This ambition will require a joint stakeholder action across the European value chains to step up the EU's efforts.

#### **On track towards the mid-century objectives**

The cement sector, together with other energy intensive industries, forms the backbone of a thriving European economy and is a key enabler for the low carbon transition in the EU. The European cement industry is contributing proactively to the transition towards a low carbon economy already today. A recent assessment of the sector's [Roadmap](#) validates its compliance with the Paris Agreement objectives in the 2050 perspective and therefore confirms it is a robust instrument to guide the cement sector.

Thanks to continuous investments, the cement sector has developed technologies to decrease fossil fuel use and to regularly increase the use of alternative energy sources and secondary raw materials. Currently, Europe is the world leader in replacing 44% of primary fossil fuels with alternative fuels taken from a variety of waste streams. The waste is sourced in unique industrial symbiosis efforts with actors in waste management and therewith puts the cement industry firmly in the circular economy. The cement industry aims for an average substitution rate as high as 60% by 2030. In addition, cement kilns have become highly energy efficient as older plants are being upgraded or replaced. The effort in reducing the carbon footprint of cement by decreasing the amount of clinker in cement is progressing as well. Last, but not least, the cement sector is developing a bundle of breakthrough CO<sub>2</sub> capture technologies, low-carbon products and is actively engaged in exploring CO<sub>2</sub> valorisation. Still, a closer cooperation between industry and public financing is needed. These projects would require further support in order to reach technical and economic viability and to get them through the demonstration phase.

Besides reducing the carbon footprint of its own activities, the European cement sector is collaborating with partners from across its value chain to develop innovative technologies for cement and concrete uses. This allows concrete to remain a product with the lowest embodied carbon and energy footprint over a lifetime of a structure compared to other construction material.

#### **Innovative enabler of the low carbon transition**

Moving along the value chain, the cement industry demonstrates that the unique characteristics of cement and concrete form efficient and affordable levers in the transformation towards a low carbon economy. It is a basic material to construct today the low-carbon built environment we will need tomorrow. Our sector gives solutions to the need for carbon removals, can play a role in thermal energy storage and offers a CO<sub>2</sub> valorisation option. All these elements represent an untapped potential for the low carbon economy by 2050.

**Carbon removal** Uniquely, cement and concrete can act as a carbon sink. Thanks to a natural process of absorbing CO<sub>2</sub> by hydrated cement in concrete or mortars, called (re)carbonation, CO<sub>2</sub> can be removed from the atmosphere by the built environment. An international and scientific initiative is ongoing and aims at developing an appropriate methodology for the phenomenon to be taken into account in national inventories in the context of IPCC reporting.

**Thermal energy storage** Concrete in buildings has proven to be an affordable and efficient thermal battery as it stores the thermal energy to lower the building energy consumption and CO<sub>2</sub> emissions. “Thermal mass” refers to concrete’s unique availability to store energy and release it over a daily cycle, leading to reduced energy for heating and cooling. In addition, the flexibility provided by the thermal mass of buildings could lead to significant savings at the level of the electricity grid.

**CO<sub>2</sub> valorisation option** Cement and concrete also offer a CO<sub>2</sub> valorisation option. Captured CO<sub>2</sub> can be reused to produce new solid materials (i.e. polymers, methanol) as well as stored permanently in concrete through a process of mineralisation which also allows to increase its strength. Solid raw materials, by-products as well as recycled construction and demolition waste can be carbonated.

### Equal chances to succeed

A coherent EU regulatory framework – encompassing climate, energy, industrial, trade and environmental policies and integrating all of these policies in a single industrial policy – is a necessary precondition for the success of the low carbon economy. For the cement and concrete industry to remain a fundamental enabler of the transition, the European legislation needs to ensure a regulatory level playing field, both from a geographical and sectoral point of view. It is indeed essential that, as long as there are no comparable climate change burdens on operators in other parts of the world, European industry continues to be given carbon leakage status. From a product point of view, the cement sector urges that any kind of legislation aiming at addressing a future low carbon economy should follow material neutrality principles and be based on lifecycle performance. The policymaker should proceed to an assessment of the built environment not on a product base, but on the basis of a whole-life performance.

With the recent launch of “[Building carbon neutrality in Europe. Engaging for concrete solutions](#)”, CEMBUREAU builds on these technological developments. While moving along the value chain, the European cement industry calls for a concerted effort of all actors to create a low carbon, circular, and competitive European construction sector.

### Continuous dialogue

CEMBUREAU looks forward to being a part of the discussions on the upcoming actions and policies to realise the ambitious vision for a carbon neutral future in Europe. Now more than ever it is clear that stakeholders need to work together along and across value chains as even breakthrough technologies are not enough to face the challenge of climate change.

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**About CEMBUREAU:** The European Cement Association based in Brussels is the representative organisation of the cement industry in Europe. Currently, its Full Members are the national cement industry associations and cement companies of the European Union (except for Malta and Slovakia) plus Norway, Switzerland and Turkey. Croatia and Serbia are Associate Members of CEMBUREAU. A cooperation agreement has been concluded with Vassiliko Cement in Cyprus.

**CONTACT:** Malgosia RYBAK  
Public Affairs & Media Manager  
E-mail: [m.rybak@cembureau.eu](mailto:m.rybak@cembureau.eu)  
Tel: +32 2 234 10 45