

European Commission public consultation on the future EU 2020 strategy CEMBUREAU response

CEMBUREAU - The European Cement Association based in Brussels is the representative organisation of the cement industry in Europe. It represents about 98% of the cement production in the EU through its membership. Currently, its Full Members are the national cement industry associations and cement companies of the European Union (with the exception of Cyprus, Malta and Slovakia) plus Norway, Switzerland and Turkey. Croatia is an Associate Member.

Investing in infrastructure

The European Commission should seriously consider how encouraging the construction of infrastructure (such as transport infrastructure) may help in making Europe more competitive in the long term. EU and national financial support should be increased to maintain investment in research and innovation, which are vital for competitiveness. Some inspiration could be drawn from *Growth, Competitiveness, Employment: the Challenges and Ways Forward into the 21st Century -White Paper COM (93)700, December 1993*.

The construction sector can also contribute to save energy and mitigate climate change. Additional steps should be taken to encourage the development of energy efficient structures through closer cooperation with industry (e.g. through the thermal mass of concrete and the design of buildings).

Renewing Europe's building stock

The EU should introduce mechanisms to increase the rate of renewal of Europe's building stock. The construction of new, energy efficient buildings and refurbishment of existing buildings would allow for energy savings and CO₂ emission reductions.

This can be achieved by, for example, making low or zero carbon buildings financially attractive through substantial financial incentives for new collective forms of housing which prove more energy efficient than individual housing (funded through, for example, the revenues generated by the Emission Trading Scheme and, where applicable, national carbon taxes).

Alternative fuels & raw materials

In order to safeguard its competitiveness, the European cement industry began some 20 years ago to look for new forms of energy. This move has expanded at the same time as the cement industry has been trying to combine energy efficiency and the need to preserve non-renewable energy and non-energy resources. This is where the use of waste, both as alternative fuels and raw materials, comes as a major breakthrough.

Alternative fuels: In 2006, the European cement industry used an energy equivalent of about 26Mt of coal, a non renewable fossil fuel, for the production of 266Mt of cement. Alternative fuels constituted 18% of this across Europe, saving about 5Mt of coal and reducing the need for mining a non renewable resource. In terms of the co-processing of waste as an alternative fuel in the cement industry, many different types of waste are burnt in cement kiln including waste oil, waste wood, sewage sludge, wastes tyres, plastics, animal meat & bone meal, solvents and impregnated saw dust. There are two characteristics of particular importance: burning conditions (high temperature with a long residence time and oxidising atmosphere) and a natural alkaline environment of the raw materials. Co-processing offers a high potential for the cement industry to reduce global CO₂ emissions. Without co-processing, the wastes and by-products which make up these materials would have to be incinerated or landfilled with corresponding greenhouse gas emissions.

Alternative raw materials: In 2006 about 5% of the raw materials used in the production of clinker consisted of alternative raw materials, totalling about 14.5Mt/ year. Alternative raw materials can be used to replace the traditional raw materials extracted from quarries, such as clay, shale and limestone, which are used in the kiln. Examples of alternative raw materials include contaminated soil, waste from road cleaning and other iron-, aluminium-, and silica-containing wastes, such as coal fly ash and blast furnace slag. The chemical suitability of alternative raw materials is important to ensure that they provide the necessary constituents for the formation of clinker. The use of alternative raw material provides numerous benefits, including a reduced need for quarrying and an improved environmental footprint of such activities.

Substitution of clinker with alternative constituents: Cement in Europe must be manufactured according to the harmonised standard EN 197-1 which clearly indicates the 27 common cements according to their main constituent. As mentioned, the main component of cement is clinker. Depending on availability, part of the clinker can be replaced with alternative constituents. Two major examples are granulated blast furnace slag, a by-product of the iron manufacturing process, and fly ashes, one of the residues generated from the combustion of coal. Substitution of clinker in cement is an example of the positive contribution of the European cement industry to resource management.

In 2008, CEMBUREAU became a Campaign Associate of the [Sustainable Energy Europe Campaign](#). In this regard, the Association launched a publication entitled 'Sustainable cement production: Co-processing of Alternative Fuels and Raw Materials in the Cement Industry' during the 2008 Sustainable Energy Week. In addition, numerous events were held by the Association on occasion.

Sustainable Construction

In 2007 CEMBUREAU commenced work in relation to the issue of Sustainable Construction. In this regard, a number of important actions have already been successful completed. We therefore take this opportunity to draw your attention to the work of CEMBUREAU in this field with the aim of contributing to the consultation.

A portfolio of case studies bringing together examples of low energy concrete buildings from across Europe was launched in 2008 and accessible on the [European Concrete Platform website](#).

In May 2008, CEMBUREAU and its members held the first ever Europe-wide Plant Open Week, for which a specific fact sheet was issued, entitled 'Energy efficiency through cement and concrete'. The theme of the 20069 Cement Industry Open Week is also Sustainable Construction, with CEMBUREAU having worked with EUPAVE (The European Concrete Paving Association) on the organisation of a motorway worksite visit.

In September 2008, CEMBUREAU was also actively involved in a European Parliament symposium entitled '[Towards a European policy for sustainable housing?](#)'. CEMBUREAU was able to provide participants with information on 'Energy efficiency through cement and concrete'.

During Green Week, held in June 2009, the theme of which was 'Climate Change: Act and Adapt, CEMBUREAU took the opportunity to launch its latest publication, '[Building a future with cement and concrete. Adapting to climate change by planning sustainable construction](#)'.

Other relevant CEMBUREAU actions:

CEMBUREAU is also currently conducting work in relation to biodiversity and actions within the cement industry.

As a European Concrete Platform member, CEMBUREAU has actively worked on numerous issues through the ECP. In February 2009, ECP, as a Sustainable Energy Europe Campaign

Associate, actively participated with the organisation of [session](#) highlighting the numerous sustainable advantages of concrete as a building material during the Sustainable Energy Week held in Brussels.

In March 2009, the 7th Conference of Cement & Concrete Marketeers and Promotion Officers conference was also organised by the ECP in Brussels. In June 2009, the ECP was also successful in obtaining a stand and promoting its publications during the Green Week.

One important ongoing project is the Common Language, a joint initiative between the ECP and the Architects Council of Europe. The aim of this project is to establish a common language for the cement and concrete industry – consistent with the social, economic and environmental issues raised by our stakeholders. A wiki consultation will shortly be launched, allowing all to contribute to the definitions produced per term of relevance to the issue of sustainable construction.

Publications:

CEMBUREAU (available from www.cembureau.eu)

- Sustainable cement production: Co-processing of Alternative Fuels and Raw Materials in the Cement Industry
- Building a future with cement and concrete. Adapting to climate change by planning sustainable construction'

Issued by the ECP

- [Eurocodes](#)
- [General guidelines for using thermal mass in concrete buildings](#)
- [Concrete for energy efficient buildings: the benefits of thermal mass](#)
 - A [two page summary](#) was also produced for the European Parliament symposium in September 2008
- [Comprehensive fire protection and safety with concrete](#)
- [Improving fire safety in tunnels](#)
- [The European Guidelines for self-compacting concrete](#)
- [Sustainable benefits of concrete structures](#)