CEMBUREAU
The European Cement Association

FINANCING RESEARCH AND INNOVATION IN THE CEMENT SECTOR

TECHNOLOGICAL PATHWAYS AND INNOVATION PROJECTS FOR THE EU CEMENT SECTOR

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THE CEMENT SECTOR

- **Capital intensive / long investment cycles**
- **CO_2 intensive in manufacturing**

Decarbonation
60% of total emissions (process)

limestone → **clinker** → **cement**

+ fuel emissions to heat kiln

- **CO_2 low and energy efficient in application**

cement (10%-15%)

+

water (15%-20%)

+

aggregates (65%-75%)

=

concrete

=

sustainable construction

Technological Pathways to Reduce CO_2

1 Resource efficiency
- Alternative fuels
- Raw material substitution
- Clinker substitution
- Novel cements
- Transport efficiency

2 Energy efficiency
- Electrical energy efficiency
- Thermal energy efficiency
- Electrification of Production

3 Carbon sequestration and reuse
- Carbon sequestration and reuse
- Biological carbon capture

4 Product efficiency
- Low carbon concrete

5 Downstream
- Smart buildings & infrastructure development
- Recycling concrete
- Recarbonation
- Sustainable construction

Technical pathways covered in the following presentations

SECTOR PROJECT PROPOSAL

- CEMBUREAU is progressing towards a common research platform across the European Cement Sector for cement companies and associations to conduct joint research which can be then utilized by any member of the platform.

- CEMBUREAU is looking to submit a sector wide application which will consist of several projects covering the 5 technical pathways. These will be demonstration projects which will trial new technologies and products conducted in several Member States.

- The following presentations by companies show existing and planned innovation projects in several of these pathways.

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