

CASE STUDY

# Ecocem



**Ecocem is a long-standing developer of low-carbon cement technologies with more than 25 years of supplying its products across major European infrastructure projects.**



The cement sector represents around 8% of global CO<sub>2</sub> emissions and since three-quarters of the infrastructure that will exist in 2050 has yet to be built, these emissions are expected to continue to rise due to increased urbanization and population growth.

Most of cement's carbon footprint comes from the production of clinker, a small part of the mix that drives more than 90% of emissions. This is why reducing the clinker ratio is one of the fastest ways to cut cement sector emissions.

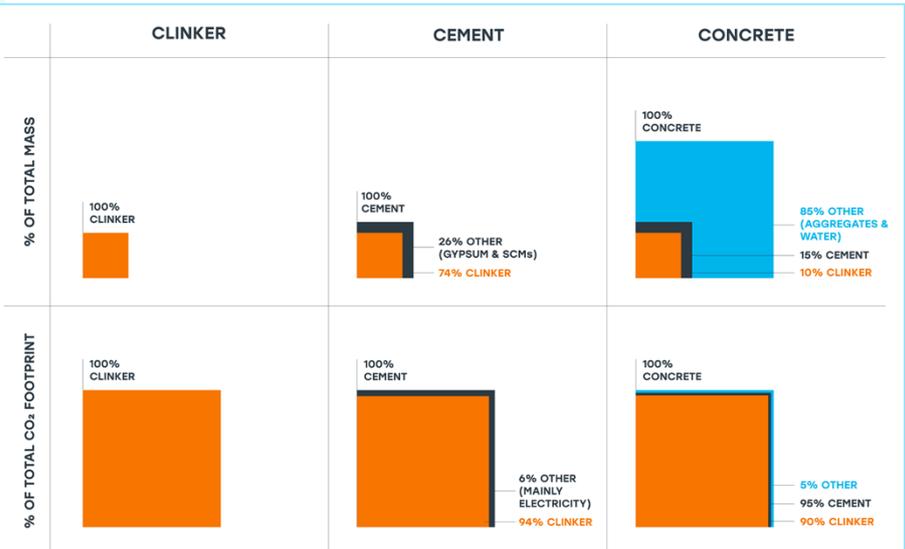
Carbon capture and storage will play a role in long term decarbonisation, but it is unlikely to cut emissions at scale before the mid-2030s. Costs remain high, infrastructure gaps persist, and deployment timelines are long. This underscores the need for solutions that can deliver significant reductions this decade.

# Ecocem's track record

Ecocem has **more than 25 years of commercial experience** producing low-carbon materials at scale, used in major projects such as the Grand Paris Express, the Paris Olympic infrastructure, Tottenham Hotspur Stadium, and Dublin's Aviva Stadium.

The company now produces just over two million tonnes of low-carbon cement each year from **its facilities in France, the Netherlands and Ireland**, and has cumulatively delivered 22 million tonnes of low-carbon material, avoiding an estimated 18 million tonnes of CO<sub>2</sub> emissions. This combination of proven technical performance, commercial scale and sustained growth underpins Ecocem's positioning as a **leading independent innovator** in low-carbon cement technologies in Europe.

Over the past decade, Ecocem's revenues have more than tripled, with 2024 revenues of **approximately €230 million**



Reducing the clinker ratio is a core pathway to lower carbon cement production and can be deployed at scale within existing industrial processes.

## Clinker reduction

In the short-term, scalable, low-carbon cement technologies are available now and can be easily deployed at little extra cost and without major changes to plant operation and job site working practices.

Low-carbon cement technologies reduce emissions at the source by replacing part of the clinker with alternative materials. These approaches can cut emissions by around 50% by 2030 using existing plant infrastructure.

## DEMONSTRATION OF ECOCEM'S ACT IN ACTION: Wembley Park site



Working as part of a consortium, led by SISK and funded by Innovate UK, a national innovation agency supporting real-world deployment of decarbonisation technologies, **Ecocem's low-carbon cement technology, ACT** has been used in the construction of a demonstrator project at Quintain's iconic Wembley Park site in London.

Other consortium members included Ramboll, Loughborough University, Creagh Concrete, Capital Concrete and BRE Group.



The two-story project used a range of different construction methodologies and concrete mixes all based on ACT.

In each case the concrete made with ACT met the design specification for each application assessed and delivered a significant carbon saving of over 70%

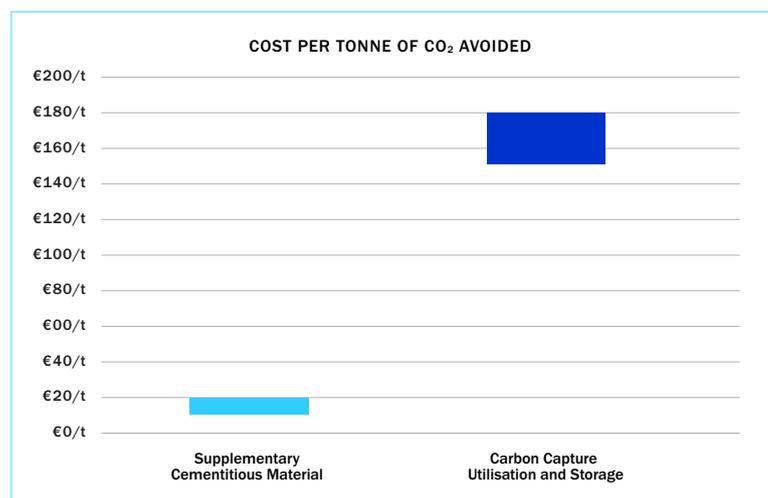
**This is a powerful example of what's possible when innovation is paired with collaboration and commitment on the ground.**

## Overview of low-carbon cement status in Europe

Demand for lower carbon cement is increasing across Europe, driven by private procurement, public requirements and financial institutions. The main constraint is scaling the availability of alternative binders. Technologies like ACT help address this by enabling high performance, low clinker formulations using widely available materials.

## Cost effectiveness of low-carbon cements

Industry roadmaps currently assume that most reductions will come from Carbon Capture and Storage (CCS), but this pathway is costly and slow to deploy. In contrast, **ACT can reduce clinker to below 30%, uses less energy, carries no green premium** and requires no major changes to existing manufacturing processes.



ACT has been tested independently and proven to deliver the required performance in terms of workability, durability and strength in any concrete it is used to make, and will be available commercially, initially in France in 2026.

Testing indicates that ACT can reduce emissions by up to 70% by reducing the clinker component of cement to less than 30%.

Ecocem is poised to grow substantially once regulatory bottlenecks around standards and funding are removed.

#### Policy priorities for scaling low-carbon cement

- ▶ Reform standards to enable performance based testing so innovative materials can enter the market.
- ▶ Direct a proportion of industrial funding towards scaling proven low-carbon cement technologies.
- ▶ Use public procurement to create early demand and build supply chain confidence.

## Rapid and low-cost cement decarbonisation

Ecocem plans to scale its ACT production capacity significantly, with multiple European sites designated for expansion.

The first stage of this is Ecocem scaling production through its ACT facility in Dunkirk, which will supply low clinker cement combinations to both France and wider European markets.

## Ecocem partners and ecosystem

Ecocem works with engineering firms, universities and product certification bodies to validate performance and accelerate adoption. This ecosystem helps ensure that ACT meets rigorous durability, safety and performance requirements across different applications.

# Why this matters for Europe's industrial strategy

The Wembley Park demonstration and the wider performance of ACT demonstrate that Europe already has technologies capable of delivering fast, low-cost decarbonisation in a hard-to-abate sector.

These solutions support competitiveness by reducing exposure to high-cost abatement pathways, help meet the EU's climate targets, and create opportunities for European industrial leadership in global cement markets. With the right policy framework, performance based standards, targeted funding support and strategic public procurement, Europe can scale these solutions rapidly and strengthen its industrial base.



## Key takeaways



High-performance, low-clinker cement technologies are available now and compatible with today's infrastructure.



ACT offers a lower cost, faster alternative to CCS for near term industrial decarbonisation.



Real world demonstration at Wembley Park illustrates performance and 70% emissions cuts.



With performance based standards and modest public support, Europe can scale these solutions rapidly.

This case study forms part of the Environmental Defense Fund's broader work with businesses to identify and scale cost-effective pathways for industrial decarbonisation.