

DREAM

Decarbonisation of the
Rezzato And Mazzano cement plant

Delivering (a) DREAM. Italy's First Full-Scale Cement Decarbonisation Project for the Rezzato–Mazzano cement plant (Brescia)

After the signature of the European Union Innovation Fund Grant Agreement last March, the project is now entering a funded phase of its development.

Peschiera Borromeo (MI), April 2026 – The kick-off meeting of the **DREAM** (Decarbonisation of the Rezzato and Mazzano cement plant) project took place on Monday, 13 April, following the official start of its implementation under the **European Union's Innovation Fund as of 1 April 2026**. The meeting was attended by representatives of **Heidelberg Materials Italia**, its parent company **Heidelberg Materials AG**, and **CINEA**, the European Climate, Infrastructure and Environment Executive Agency, which is responsible for managing the Innovation Fund programme.

During the meeting, the project was presented with a focus on the **CO₂ capture** technology planned for the **Rezzato–Mazzano** cement plant and on its role within the **Carbon Capture and Storage (CCS)** value chain, which also includes the transport and permanent storage of the captured CO₂ in depleted offshore gas fields located off the coast of Ravenna. The work plan, key project phases, timeline, milestones, deliverables, and the financial framework were also outlined, in line with the provisions of the Grant Agreement signed between Heidelberg Materials Italia Cementi S.p.A. and CINEA on 1 April. The Grant Agreement regulates the funding awarded by the European Commission under the Innovation Fund. CINEA further presented the management, monitoring, and communication requirements applicable to projects supported by the Innovation Fund.

The kick-off meeting represented a key moment of discussion and alignment between the Company and CINEA, confirming the reference framework of the DREAM project and establishing the foundations for its development in compliance with the requirements of the lump-sum funding scheme.

As of 1 April, the DREAM project has officially started, with the ambitious objective of becoming Italy's first

successful large-scale business model for CCS in the cement sector, while fully complying with the contractual obligations set out in the Grant Agreement.

In November 2025, DREAM was selected among the projects admitted to the Grant Agreement preparation phase under the European Union's Innovation Fund call, one of the EU's flagship financing programmes supporting innovative low-carbon technologies. With the signature of the Grant Agreement, the funded project officially "came to life" and entered its procedural implementation phase, aimed at achieving the technical and economic objectives approved by CINEA in order to benefit from EU funding.

Heidelberg Materials Italia Cementi S.p.A. is the sole beneficiary, holding 100% of the Grant Agreement, while the parent company Heidelberg Materials AG supports DREAM as an Affiliated Entity.

A key milestone will be the final investment decision by the Parent Company (Heidelberg Materials AG), which will be facilitated by several enabling factors, including a clear definition of the CCS regulatory and legislative framework in Italy and the related national incentive scheme, as well as the development of transport and storage infrastructures, which are essential for the implementation of the DREAM project based on CO₂ emissions capture.

The CCS DREAM Project

DREAM represents **Italy's first industrial-scale CCS project in the cement sector**, aiming to implement a **highly innovative, tailor-made CO₂ capture solution** for the decarbonisation of **both production lines** at the Rezzato–Mazzano cement plant, located in the Province of Brescia. For CO₂ capture, the project envisages **two distinct technologies**, one for each of the two clinker production lines—the intermediate product at the core of cement manufacturing. The **grey clinker kiln line** will be converted to **oxy-fuel combustion technology**, enabling the production of process exhaust gases with a higher CO₂ concentration; capture will then be completed through a **cryogenic separation process**. For the **white clinker production line**, a **post-combustion capture solution** based on **chemical absorption using a solvent** has been designed. Through a **waste heat recovery system** integrating and interconnecting the two production lines, the thermal energy required for solvent regeneration will be largely met. In addition, part of the off-gases from the cryogenic unit will be reprocessed and fed into the white clinker kiln line. The overall benefit will be not only the **maximisation of energy efficiency**, but also an **increase in the CO₂ capture rate**. The captured CO₂ will be transported via **pipeline** and permanently and safely injected, after 2032, into **geological storage sites**, specifically depleted offshore gas fields located off the coast of **Ravenna**.

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