

CEMENT AND LIME

INNOVATION FUND

Deployment of net-zero and innovative technologies

KOdeCO net zero: KOdeCO net zero

The Innovation Fund is 100% funded by the EU Emissions Trading System

| Project Factsheet

The KOdeCO net zero project aims to achieve the first net zero cement plant in Croatia and in the Mediterranean. It will create a first-of-its-kind end-to-end carbon capture and storage (CCS) value chain from the Holcim cement plant in Koromačno to the first permanent storage site in the Mediterranean Sea. The project will result in a relative greenhouse gas (GHG) emissions avoidance of 107% compared to the reference scenario.

Holcim's KOdeCO net zero innovation builds on the 2nd generation disruptive integration of the CryocapTM FG non-intrusive carbon capture and liquefaction technology, in an upgraded century old cement facility. The already disruptive solution, developed by Air Liquide, will be pushed further to significantly lower energy consumption, reduce water consumption, lower emissions of harmful products and increase circularity, while limiting risks on the brownfield cement plant's production

COORDINATOR

HOLCIM (HRVATSKA) DRUSTVO S OGRANICENOM ODGOVORNOSCU ZA PROIZVODNJU CEMENTA

LOCATION

Croatia

CATEGORY

Carbon capture and geological storage (CCS)

SECTOR

Cement lime

AMOUNT OF INNOVATION FUND GRANT

EUR 116,926,000

EXPECTED GHG EMISSIONS AVOIDANCE

3,690,446 tonnes CO2 equivalent

STARTING DATE

01 January, 2024

ENTRY INTO OPERATION DATE

*3*0 November, 2028

FINANCIAL CLOSE DATE

31 December, 2025

reliability. In addition, the KOdeCO net zero project, will integrate first-of-its-kind water treatment and desalination plants. This will further decrease the plant's environmental footprint, aiming to become a zero freshwater production site. The KOdeCO net zero CCS chain will allow for the avoidance of 3.7 million tonnes of CO2 equivalent (CO2e) over the first ten years of operation.

KOdeCO net zero is highly strategic for the Croatian and European cement and construction industries as it will provide net zero cement for the first time in the region. This will contribute directly to the decarbonisation of the Croatian industry, and the achievement of the European Green Deal and New European Bauhaus goals, as well as the Low-Carbon Development Strategy of the Republic of Croatia. Located in Istra County, it will also contribute to the goals set within the Just Transition Mechanism.

Through extensive stakeholder engagement activities, the project will advance knowledge and experience in CCS in the region, as well as create opportunities and programs for upskilling and reskilling the work force towards a successful transition to a sustainable competitive economy. The project will have a strong impact on job creation in the region, with up to 90 new direct jobs and 200 indirect jobs within different sectors. Also, by showcasing the highly scalable low-risk solution, the KOdeCO net zero project will support deployment and replicability across the cement industry and other industrial sectors on a European and national scale. The project has the potential to become a key reference in the decarbonisation of the Mediterranean countries, as it will support the development of regional CO2 storage solution for hard-to-abate industries across the south of Europe.

| Participants

HOLCIM (HRVATSKA) DRUSTVO S OGRANICENOM ODGOVORNOSCU ZA Croatia PROIZVODNJU CEMENTA