

DECARBONIZING OUR OPERATIONS WITH CCUS

KODECO NET ZERO

Paving the way for the first permanent offshore geological storage in the Mediterranean



 **KOROMAČNO, CROATIA**



Co-funded by the European Union
Emissions Trading System
Innovation Fund



KODECO NET ZERO



The KOdeCO net zero project aims to make Holcim's Koromačno plant the first to produce net-zero cement in Croatia and the Mediterranean. It will establish a first-of-its-kind, end-to-end carbon capture and storage value chain between the plant and storage under the Mediterranean.

Adopting a highly scalable low-risk solution, the project uses renewable electricity which enables 20% electricity savings, higher efficiency, circularity of condensate and reduced water consumption.

With a vision for the Koromačno plant to be net-zero by 2028, the project aims to capture and store around 366,000 tons of CO₂ per year. The project's decarbonization efforts led to it being selected for an EU Innovation Fund grant in 2023 as well as the Just Transition Fund.

The technology behind the project

The project will capture CO₂ through absorption end-of-pipe technology. It will use Air Liquide's Cryocap™ FG non-intrusive carbon capture and liquefaction technology, which is adapted to the direct capture of clinker production flue gas.

The Koromačno plant will provide intermediate storage to prepare liquefied CO₂ to be loaded onto vessels and then permanently stored under the Mediterranean. The project will also integrate first-of-their-kind water treatment and desalination plants to further decrease Koromačno's environmental footprint with the aim of becoming a zero fresh water usage site.

At a glance



NET-ZERO
by 2028



FUNDING
EU Innovation Fund
Just Transition Fund



ANNUAL CO₂ CAPTURE
Around
366,000 tons



INNOVATION
Higher concentration and
efficiency of captured CO₂



PATHWAY
Storage



TECHNOLOGY
Cryocap™ FG

The disruptive Cryocap™ FG technology will be installed at the pre-heater. It requires no oxygen enrichment and produces highly concentrated CO₂.

Our potential Partners

- Air Liquide for the capture of the highly concentrated CO₂
- OCEOS/Prime Marine for shipping
- PSC for the waste water treatment

Carbon2Business will be integrated with other projects in the region to build up material flows, including a hydrogen network, from CCUS and kick-start innovative, cross-sectoral value chains.

“The advantage of the project is that we're located at sea, so it reduces the logistic aspects and enables us to use seawater as a cooling medium for the cement manufacturing process.”



Sandra Malović Vlačić
Project Manager
for Carbon
Capture and
Storage