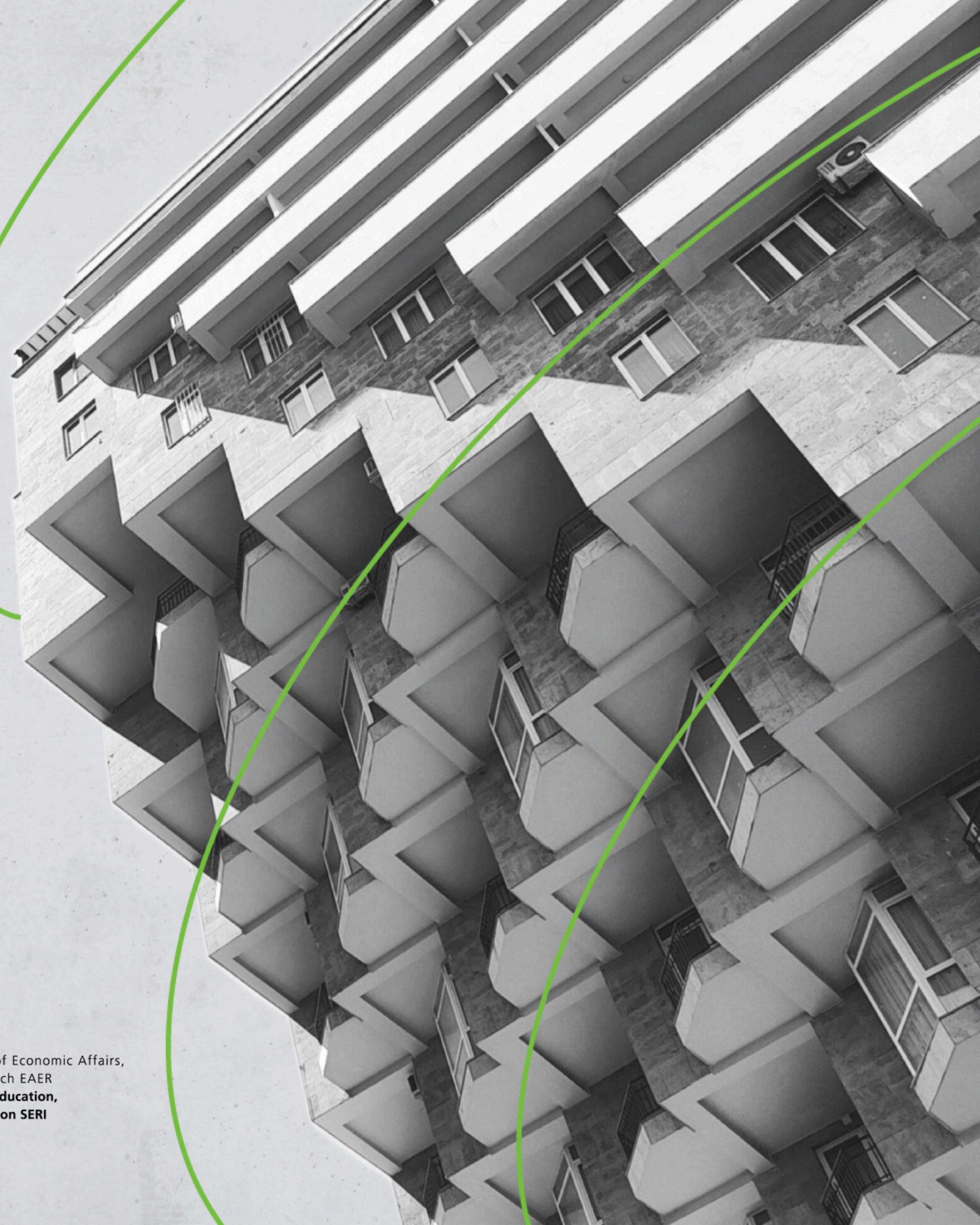


CILANTRO

Pioneering Net-Negative CO₂ Cement

Transforming a crucial global industry from a major CO₂ emitter into a climate-positive asset.



European
Innovation
Council



Funded by
the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Project funded by



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

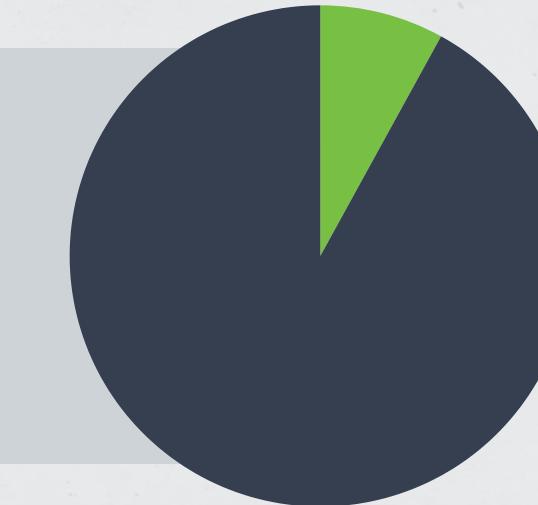
Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Education,
Research and Innovation SERI

The Crisis: 8% of Global Emissions



**8% of Global
CO₂ Emissions**



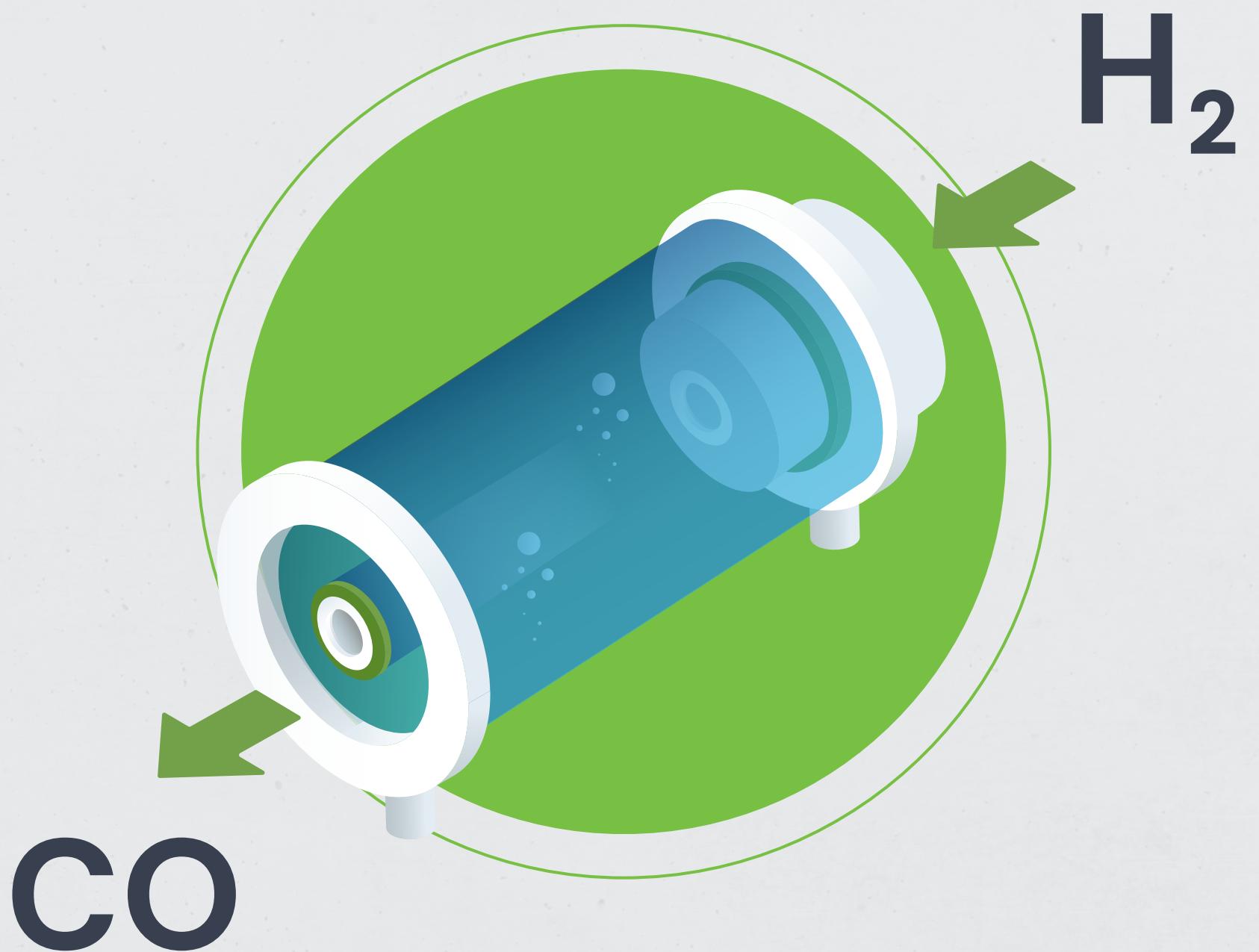
The cement industry is a cornerstone of infrastructure, yet it accounts for approximately 8% of global CO₂ emissions - more than air travel. Traditional production relies on high-temperature processes that chemically release CO₂. Achieving climate targets requires a fundamental chemical revolution, not incremental fixes.

CILANTRO is disrupting this trillion-euro market with the only viable non-thermal technology designed to achieve net-negative CO₂ cement from day one. This is essential infrastructure for the Net Zero transition.

The Breakthrough: Non-thermal CO₂ Prevention



We substitute the energy-intensive, high-heat thermal process (calcination) with mechanochemical activation of limestone under a controlled gas atmosphere. This eliminates the chemical generation of CO₂.



Beyond Decarbonisation: A Circular Solution



Zero process emissions

We prevent CO₂ from being released.



Hydrogen integration

The process relies on low-cost hydrogen feedstock.



Circular value

We co-produce valuable gases (CO/Methane) used as clean synthetic fuels or chemical precursors.

The Implementation Team



CILANTRO is executed by a consortium of eight partners across six European countries. We combine leading expertise in mechanochemistry, materials science, industrial engineering, and IP commercialisation.



The Breakthrough: Non-thermal CO₂ Prevention



Clean air & Climate neutrality: We deliver a direct, quantifiable solution for the 8% CO₂ problem. Our technology is essential for Europe to meet its Net Zero construction targets.

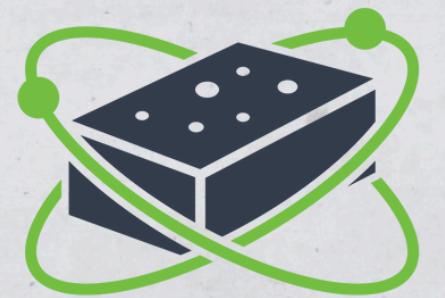
Protected innovation: We are securing the core intellectual property (IP) around the mechanochemical process. This protects the innovation and provides a clear licensing pathway for industry-wide adoption.

Research

**Validated
Technology**

**Industrial
Demonstration
Blueprint**

The Path Forward: Having successfully de-risked the foundational science (TRL 4), our immediate focus is validating the technology's scalability and preparing the blueprint for an industrial-level demonstrator. This ensures our results transition efficiently from the laboratory to the market.



CILANTRO

Thank you!

Follow us

 Youtube

 LinkedIn

European
Innovation
Council



Funded by
the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Project funded by



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Education,
Research and Innovation SERI

