

Carbon Management for a sustainable use of carbon

Successful R&I in Europe, February 19, 2026
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Carbon Management

Sustainable use of carbon



- Public -

Technology and material development for the carbon cycle

- CO₂ separation, CO₂ storage and gas purification
- Processes for the production of chemicals, fuels and materials from CO₂, CO and H₂
- Catalyst development, testing and upscaling
- CO₂ electrolysis
- Pyrolysis and carbonization of carbonaceous residues
- Modelling, simulation and optimization of Power-to-X and CCU processes

Type and role of partner(s) you are seeking

Industry that has to deal with carbon as a feedstock or with it at the end of its lifetime

Carbon as a feedstock

- Chemical industry
- Steel industry
- ...

Carbon separation and X

- Waste treatment
- Cement and lime
- Steel industry
- ...

Field of interests

- Biomass: Conversion into biobased feedstocks
- Recycled carbon: Reuse of CO₂ as a feedstock for carbon based feedstocks
- Mineralization

Potential project

Interesting calls

HORIZON-CL4-2026-01-MAT-PROD-31 (April 2026)

- Efficient capture / purification / utilisation of CO₂ for the production of competitive products (RIA)

HORIZON-CL5-2026-11-D3-05 (September 2026)

- Demonstration of solid biofuel supply and conversion to high efficiency CHP from fully sustainable regional value chains

HORIZON-CL5-2027-02-D3-31 (2027)

- Support to the implementation of an EU policy framework for CO₂ transport and storage infrastructure (CSA)

HORIZON-CL5-2027-07-D3-32 (2027)

- Delivery of industrial CCUS clusters-Societal Readiness pilot

In general according to our fields of expertise (→ slide 2) → Eurostars

Test facility, demonstration and analytics

(only a glimpse on the existing infrastructure)

Fraunhofer UMSICHT has various test and pilot units and according analytics (Examples)



Test units

Wide range of units covering all fields of process technology



Large scale units

High pressure laboratory and workshop



Demo units

Containerized solutions

Cell and Stack testing

including lifetime evaluation, stress testing and corrosion analysis.



Analytics

- x-ray
- Raman microscopy
- NMR
- Chromatography
- Catalyst testing
- ...

Thank you for your attention!



Contact

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