

DECARBONIZING OPERATIONS WITH C2PAT+



CARBON TO PRODUCT AUSTRIA PLUS (C2PAT+)

**DECARBONIZING CEMENT IN A LANDLOCKED COUNTRY:
FULL-SCALE CARBON CAPTURE, STORAGE AND UTILIZATION VALUE
CHAIN SOLUTION**

MANNERSDORF, AUSTRIA

C2PAT+: INDUSTRIAL CARBON CAPTURE

DECARBONIZING CEMENT IN A LANDLOCKED COUNTRY



Creating a blueprint for safe CCUS deployment to advance the decarbonization of hard-to-abate and cross-industry circular business models in landlocked countries with Carbon to Product Austria plus.

Opportunities

- Innovative carbon capturing solution which combines PSA (Pressure Swing Absorption) technology and cryogenic gas separation processes (today, there exists no such large-scale installation in the cement industry)
- Establishing full-scale carbon capture, storage and transportation value chain to allow CCUS projects to develop in landlocked countries (2.000t of liquid CO₂ transported per day by train and ship from Austria to the Adriatic Sea)
- Developing in the medium term a CO₂ use case to produce plastics and other chemicals with captured biogenic CO₂

Success factors

- Incentivizing regulatory framework for both CCU and CCS development
- Competitive CO₂ transportation value chain in landlocked countries
- Well-functioning and watertight CBAM
- Legal provision of the EU-ETS for CCU and the recognition of unavoidable raw-material based CO₂ from cement production
- Deployment of CCS capacities in Austria
- Funding from the Innovation Fund

Main Benefits



Advancing the Green Deal: an industrial implementation



Developing Austria's industrial decarbonization



Fostering market entry of innovative CCUS technologies



Creating full cross-sectoral carbon-based value chain

Key Facts

Technology

Pressure Swing Absorption technology and cryogenic gas separation carbon capture unit

CO₂ storage/usage mode

Storage and usage

Partners

Linde GmbH, RCA, Eni (Storage)
OMV, Borealis, Verbund (Utilization)

Funding

Running for Innovation Fund

Estimated CAPEX

EUR 310 million

Most innovative aspect

The first solution to transport high volumes of liquid CO₂ over long distance to off-shore CCS-sites

“C2PATplus is the first ever net zero solution to be established in a landlocked, small European member state. Bringing both the European and the national decarbonization strategy to reality will pave the way for the long-term competitiveness of the industry and the associated value chain in the Central European region.”

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Environmental Success



Carbon-neutral by: 2029



Amount of CO₂ captured per year: 750,000 tons



Further information available at: www.holcim.at

