

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. Temporary storage (CCS) preferred in Austria. Alternative solution: 2.000 t 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 Transformation 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

CCUS storage and usage

Partners

Potential utilization: OMV, Borealis, Verbund

Funding

Running for Transformation Fund

Estimated CAPEX

EUR 400 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.”

Haimo Primas

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Environmental Success



Carbon-neutral by: 2030



Amount of CO₂ captured per year: 750,000 tons



Further information available at:
www.holcim.at

