European Commission

OTHER ENERGY INTENSIVE INDUSTRIES

INNOVATION FUND

Deploying innovative net-zero technologies for climate neutrality

Danube Removals: Danube Onshore Fermentation Carbon Removals

The Innovation Fund is 100% funded by the EU Emissions Trading System

| Project Factsheet

Danube Removals is a full chain Carbon Capture and Storage (CCS) operation in Central Hungary. It will collect more than 500 000 tonnes of biogenic CO2 per year from the yeast fermentation and anaerobic digestion processes of Pannonia Bio, one of Europe's largest biorefineries. The collected CO2 will be transported via pipeline and injected into a nearby permanent onshore geological storage site in a saline aquifer of the Pannonian Basin. The project will generate EU-certified carbon removal credits for the voluntary carbon markets. Europe's existing fermentation sector has the potential for over 10 million tonnes per year of similar carbon removals using biogenic CO2. This impact could further increase as the EU biomethane sector grows.

The Danube Removals project will demonstrate the first large-scale integration of bioCCS in Europe, with low CCS unit costs. The proposed CO2 storage model could also be scaled up to handle tens of millions of tonnes of CO2 across the Pannonian Basin. The Danube Removals project aims to set a new

COORDINATOR
DANUBE ENERGY VENTURES KFT

LOCATION
Hungary

CATEGORY
Energy intensive industries (EII)

SECTOR
other

AMOUNT OF INNOVATION FUND GRANT
EUR 48,445,901

EXPECTED GHG EMISSIONS AVOIDANCE
5,646,038 tonnes CO2 equivalent

STARTING DATE
01 April, 2025

FINANCIAL CLOSE DATE
30 June, 2026

ENTRY INTO OPERATION DATE
30 September, 2027

CALL NAME
InnovFund-2023-NZT

** Calculated vs. the 2021-2025 ETS benchmark of 6.84 tCO2e/tH2, not taking into account additional carbon abatement due to substitution effects in the H2 end use application, i.e. conservative estimate.*

Updated on 16 July 2025

benchmark for economic feasibility and demonstrate strong potential for scalable expansion and replication across Europe.

The project will deliver over 1% of Europe's 2030 annual CO2 storage capacity target (50 million tonnes per year) mandated in the Net-Zero Industry Act. It will also deliver more than 10% of the 5 million tonnes of annual Carbon Removals anticipated for 2030 in the 2021 Communication on Sustainable Carbon Cycles. Additionally, Danube Removals will complement the implementation of the upcoming EU Regulation Establishing a Certification Framework for Carbon Removals by providing a substantial volume of CRCF-compliant credits, helping to accelerate the growth of Europe's Voluntary Carbon Markets.

Danube Removals will generate approximately 200 jobs during development and around 50 in operation. Indirect employment and expansion to new sites point to thousands of additional jobs. The project will demonstrate the potential of Central Europe, and Hungary in particular, as promising regions for low-cost, high-volume CO2 storage.

| Participants

DANUBE ENERGY VENTURES KFT	Hungary
OGD GREEN STORAGE KFT	Hungary
DANUBE CCS VENTURES KFT	Hungary

Additional information on the EU Funding and Tenders Portal.