



INNOVATION FUND

Deploying innovative net-zero technologies for climate neutrality

SLALOM 2.0: Sustainable, Low-carbon Advancements in LanzaFlex Operations for Manufacturing

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

| Project Factsheet

LanzaTech, a leader in industrial carbon recycling, and Eramet Norway AS, a world leading ferroalloy producer, will reduce greenhouse gas (GHG) emissions from Eramet's Porsgrunn Manganese Smelter by piloting and optimizing an innovative Carbon Capture, Utilization and Storage (CCUS) technology for the first time, integrating gas fermentation with CO₂ storage. The project will convert carbon monoxide (CO) rich industrial emissions into ethanol creating a concentrated CO₂ tail gas stream for liquefaction and permanent geological storage, capturing 97% of carbon that is sent to the project. The integrated CCUS system is expected to produce 23.5 kilotons of ethanol annually (kta) and 126 kta of liquefied CO₂, resulting in emissions avoidance of 356% compared with the reference scenario. This ethanol produced is a recycled carbon fuel (RCF) that will be used for sustainable aviation fuel production and for chemical production. The liquified CO₂ will be transported and permanently stored in the North Sea.

COORDINATOR

LANZATECH NZ INC

LOCATION

Norway

CATEGORY

Energy intensive industries (EII)

SECTOR

Refineries

AMOUNT OF INNOVATION FUND GRANT

EUR 40,000,000

EXPECTED GHG EMISSIONS AVOIDANCE

1,698,175 tonnes CO₂ equivalent

STARTING DATE

01 January, 2026

FINANCIAL CLOSE DATE

30 September, 2027

ENTRY INTO OPERATION DATE

31 December, 2030

CALL NAME

InnovFund-2024-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.*

The first-of-a-kind integrated CCUS project will pioneer LanzaTech's new, higher efficiency bioreactor integrated with tail gas CO₂ purification and liquefaction in a single location. This combined configuration enables a dual-pathway carbon management approach that delivers unprecedented performance: 27% of the carbon from this CO-rich gas is converted into fermentation products, while 69% is permanently stored underground. By integrating this new bioreactor technology and advanced biocatalyst, with CO₂ liquefaction and sequestration in one system, the project provides industry with a fully replicable solution for near-complete emission avoidance. Over its first ten years of operation, the integrated CCUS facility will avoid approximately 1.7 million tons of CO₂ equivalent emissions, similar to that of 170,000 average EU households.

SLALOM 2.0 supports the objectives of the European Green Deal and the Fit for 55 packages, aligning with key EU priorities of Europe's transition to clean

transportation and aviation fuels and of industrial decarbonization of the hard-to-abate segment and the circular economy. Thanks to its modular and replicable design, the project can be deployed across multiple industrial sectors, showcasing practical industrial symbiosis and strengthening Europe's pathway toward climate neutrality.

Located within Herøya Industrial Park, close to and in cooperation with Eramet Norway Porsgrunn manganese alloy facility in Norway, the integrated CCUS facility will deliver significant regional socio-economic benefits. The project will create 200 jobs during construction and 45 permanent positions during operations, with an additional 268 indirect jobs to support these employees. Its modular design can be scaled and replicated for other industrial offgases, gasified biomass or municipal solid waste. Widespread adoption would reduce industrial emissions and foster a circular economy that supports Europe's wider energy transition and industrial competitiveness.

| Participants

LANZATECH EU BV

Netherlands

LANZATECH NZ INC

United States

LANZATECH UK LTD

United Kingdom

LANZATECH EXELIXIS SPV AS

Norway

ERAMET NORWAY AS

Norway

Additional information on the [EU Funding and Tenders Portal](#).