Air

Production of sustainable methanol as raw material for chemical products by first-of-a-kind Carbon Capture and Utilization process integrated with world scale electrolysis unit
Air

Beneficiaries: Perstorp Oxo AB, Fortum Sverige AB & Sydkraft AB

Stenungsund, Sweden

EUR 97 000 000 granted

4,06 Mt CO₂ eq emissions avoided

Chemicals
ANRAV
An innovative CCUS value-chain to realize the first CCUS-cluster in Eastern Europe, supporting the Balkan region to reach its climate goals by 2030
ANRAV

Beneficiaries: Devnya Cement JSC & Petroceltic Bulgaria EOOD

- Devnya, Bulgaria
- EUR 189 694 949 granted
- 7.8 Mt CO₂ eq emissions avoided
- Cement and lime

All images © Anrav
BIOZIN
The world’s first commercial-scale drop-in biofuel production facility. BIOmass from Norwegian forestry and sawmills to advanced low carbon fuels for Zero emission transportation INdustry
BIOZIN

**Beneficiaries** Biozin Holding AS (BZHAS) & A/S Norske Shell (Shell)

- Amli, Norway
- EUR 75,000,000 granted
- 2.57 Mt CO$_2$ eq emissions avoided

Refinery, Biofuels
C2B- Carbon2Business
An innovative carbon capture technology at Holcim Germany’s cement plant providing captured CO₂ as a raw material to different industries in the region.
C2B- Carbon2Business

**Beneficiaries:** Holcim (Deutschland) GmbH & Holcim Technology Ltd

- Lägerdorf, Germany
- EUR 109,816,528 granted
- 13 Mt CO₂ eq emissions avoided
- Cement and lime

All images © C2B: Carbon2Business
CalICCC
First industrial-scale carbon capture for lime production integrated with transport of $\text{CO}_2$ to coastal hub and shipping to geological storage in the North Sea.
CalCC

**Beneficiaries:** Chaux et Dolomies du Boulonnais (affiliate of Lhoist Group) & Air Liquide France Industrie

- Réty, France
- EUR 125 198 197 granted
- 5,8 Mt CO₂ eq emissions avoided
- Cement and Lime

All images © CalCC
Coda Terminal
The world’s first carbon mineral storage terminal providing a new, safe and scalable method of permanent \( \text{CO}_2 \) storage
Coda Terminal

**Beneficiaries:** Carbfix & Dan-UnityCO2 A/S

- Straumsvik, Hafnarfjordur, Iceland
- EUR 115 000 000 granted
- 21.1 Mt CO₂ eq emissions avoided
- CO₂ Transport and Storage
EAVORLOOP
A large underground radiator buried at 4,500m providing clean, dispatchable and baseload energy. Operating under a natural thermosiphon requiring no pump and no aquifer, fresh water will circulate through the radiator carrying the heat to surface.
EAVORLOOP

Beneficiaries: Eavor Erdwärme Geretsried GmbH

- Geretsried, Germany
- EUR 91 600 000 granted
- 439,725 t CO₂ -eq emissions avoided
- Geothermal energy
ELYgator

Kickstarting a renewable hydrogen value chain for industry and mobility with a highly integrated, flexible large-scale 200MW water electrolyser producing renewable hydrogen and oxygen
ELYgator

**Beneficiaries:** Air Liquide Industrie BV

- **Terneuzen, Netherlands**
- **EUR 99 000 000 granted**
- **3,3 Mt CO₂eq emissions avoided**
- **Hydrogen**

Current energy demand on the grid

Unused/lost energy

Supply renewable electricity

Supply renewable electricity

Current energy demand on the grid

Hydrogen, O₂, & Heat

All images © ELYgator
FUREC- FUse, REuse, ReCycle
Transforming non-recycle solid waste streams into hydrogen and provides circular feedstock to the chemical industry
FUREC

**Beneficiaries:** RWE Aktiengesellschaft & RWE Generation NL

- **Location:** Buggenum & Geleen, Netherlands
- **Funding:** EUR 108 000 000 granted
- **Emissions Avoided:** 3.61 Mt CO₂ eq emissions avoided
- **Hydrogen**
GO4ECOPLANET
Using a globally-unique technology for capturing and liquefying \text{CO}_2\text{ to fully decarbonize cement production at the Lafarge plant in Kujawy, Poland.}
GO4ECOPLANET

Beneficiaries: Lafarge Cement S.A.

- Bielawy, Poland
- EUR 228 210 004 granted
- 10 Mt CO₂ eq emissions avoided
- Cement and lime

All images © GO4ECOPLANET
HH- Holland Hydrogen

A 400 megawatt electrolyser in the Port of Rotterdam to produce green hydrogen, using renewable electricity from offshore wind farms in the North Sea.
HH- Holland Hydrogen

**Beneficiaries:** Rotterdam Hydrogen Company B.V, Shell Hydrogen Operations & Production B.V

- Rotterdam, Netherlands
- EUR 89 000 000 granted
- 5.1 Mt CO₂ eq emissions avoided

Hydrogen

All images © HH- Holland Hydrogen
HySkies
The first large-scale synthetic Sustainable Aviation Fuel (SAF) production facility in Sweden, producing around 82000 tonnes SAF and 9000 tonnes renewable diesel per year.
HySkies

Beneficiaries: Shell, Vattenfall (SE) & LanzaTech (US)

Uppsala and Forsmark, Sweden

EUR 80 200 000 granted

2,7 Mt CO₂ eq emissions avoided

Refineries

All images © HySkies
N20WF- Nordsee Two Offshore Windfarm Innovation Project

A first-of-its-kind offshore wind farm, with a capacity of 450 MW, combined with on-site production, storage and offtake of green hydrogen.
N2OWF-Nordsee Two Offshore Windfarm Innovation Project

**Beneficiaries:** Nordsee Two GmbH

- North Sea, Germany
- EUR 96 000 000 granted
- 3.2 Mt CO₂ eq emissions avoided
- Wind energy, Offshore Wind
NorthSTOR+

The project aims to both validate the technology development of an innovative, stationary energy storage system (ESS) and to industrialise the production of the solution at a mass-scale.
NorthSTOR+

Beneficiaries: Northvolt Systems Poland sp z o.o & Northvolt System AB

Gdansk and Tczew (Poland) & Stockholm (Sweden)

EUR 75 451 457 granted

34,6 Mt CO₂ eq emissions avoided

Manufacturing of components for production of renewable energy and storage
PULSE

Pretreatment and upgrading of Liquefied waste Plastic to Scale up circular Economy with a capacity to process 400,000 tonnes of waste plastic per year.
PULSE

Beneficiaries: Neste

Porvoo, Finland

EUR 135 000 000 granted

10.3 Mt CO₂ eq emissions avoided

Chemicals

All images © PULSE
ReLieVe - Recycling of Li-ion batteries for electric vehicles
Creating an innovative end-to-end, integrated solution for the closed-loop recycling of 50,000 tons of end-of-life lithium-ion batteries and production waste from battery manufacturing processes per year.
ReLieVe

Beneficiaries: Eramet SA

Dunkirk, France

EUR 67 600 000 granted

4,2 Mt CO₂ eq emissions avoided

Manufacturing of components for production of renewable energy or energy storage