

Accelerating CCS Technologies

**Kick off ACT3 projects
2021/2022**

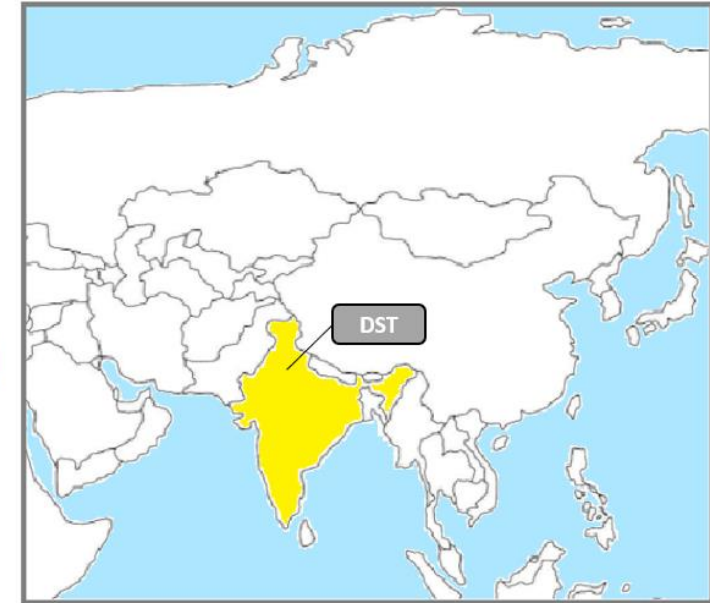
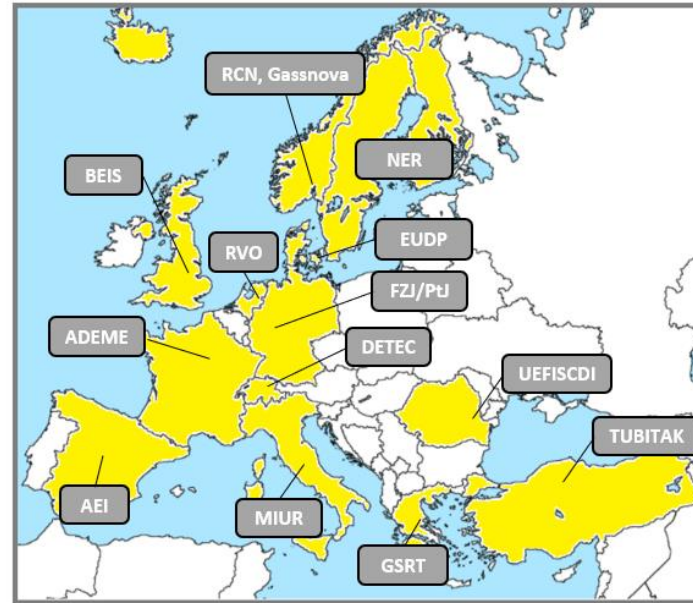
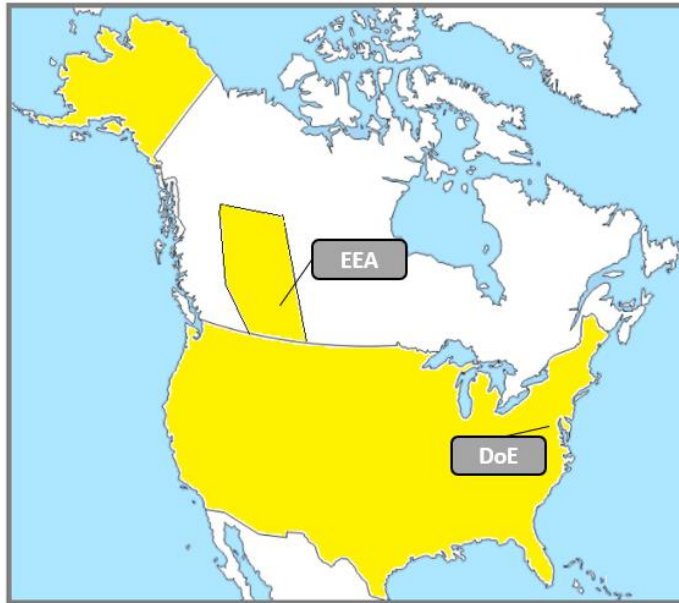
Co-funded by the
European
Commission within
the Horizon 2020



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Coordinator of ACT - RCN

This is ACT

Funding agencies from 16 countries, regions, and provinces collaborating on transnational calls and knowledge sharing within CCUS. Consortium established in 2016 under Horizon2020.



- Alberta (Canada)
- USA

- Denmark
- France
- Germany
- Greece
- Italy
- The Netherlands
- Norway
- Nordic countries
- Romania
- Spain
- Switzerland
- Turkey
- UK

- India

Black = countries from the start 2016
Green = new in 2019
Red = new in 2020



Three successful calls

ACT1 – launched 2016

- Funding agencies from **9** countries
- **8 projects** funded, started in 2017 (completed Dec. 2020)
- 36 M€ from ACT of which 12 M€ from EC

ACT2 – launched 2018

- Funding agencies from **11** countries
- **12 projects** funded, started autumn 2019 (ending autumn 2022/winter 2023)
- 31 M€ from ACT, no EC money

ACT3 – launched 2020

- Funding agencies from **16** regions/countries
- **13 projects** funded started autumn 2021 (ending 2023/2024)
- 32 M€ from ACT, no EC money

Present their projects at the ACT knowledge sharing workshop 9-10 June

What ACT has achieved



- Paved the way for large scale CCUS deployment
 - Provided results of relevance to development of Longship, Porthos, Scottish CCUS cluster, etc.
- Results complying with the **SET plan implementation** – and the **Mission innovation R&I targets**.
- ACT project is more than the sum of each national efforts
- Established **collaboration between partners** (in Europe and across the Atlantic and to India) who without ACT would not have found each other (not at all or not that easily)
- Invited projects to **share results with industry and decision makers**
- ACT as consortium and the ACT project have attended a number of international conferences.
- Provided relevant inputs to the CETP (Clean Energy Transition Partnership) and the ACT partners will be strongly engaged in this Initiative.

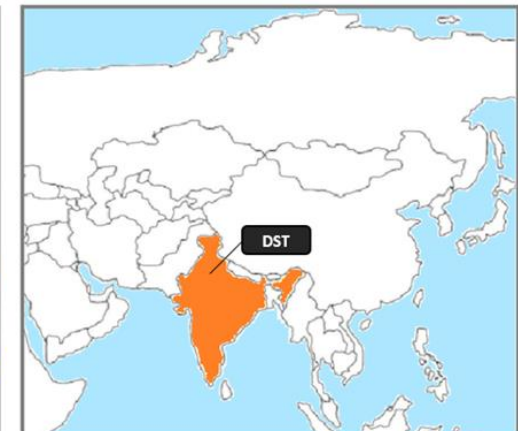
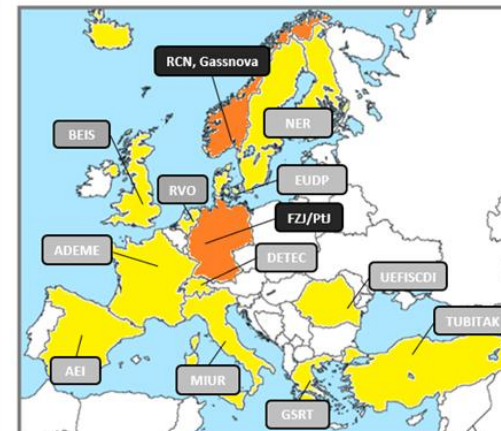




ACT4 call launch 12 May 2022

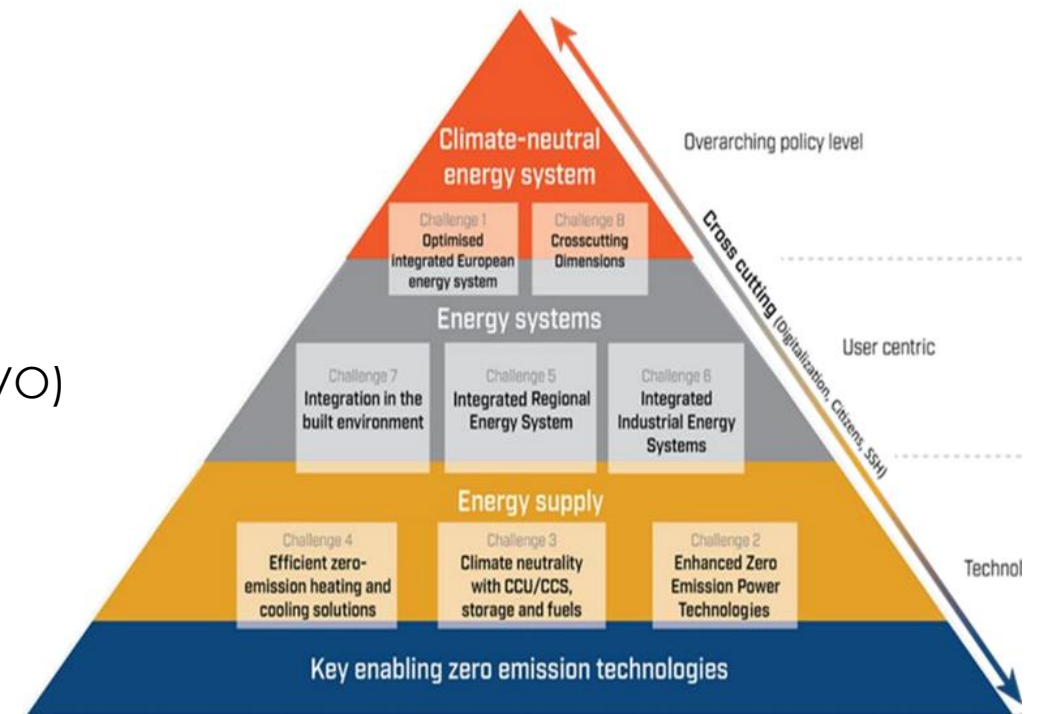
Participating country/region	Funding organisation	Indicative budget
Canada, Province of Alberta	Emissions Reduction Alberta (ERA)	CAD\$ 2.85 million
Germany	Forschungszentrum Jülich GmbH, Projektträger Jülich (FZJ/PtJ)	€ 3 million
India	Department of Science and Technology (DST), Ministry of Science and Technology, Government of India	€ 1 million
Norway	The Research Council of Norway (RCN)	Up to NOK 30 million
United States	Department of Energy (DOE)	US\$ 5.4 million (Equivalent to approx. 5 million €)

- Broad scope
- Industry relevance
- Deadline for submission: 12 Sept 2022
- One step procedure. Only full proposals
- Decision for funding: December 2022
- Project to start: spring 2023



Stepping up European and International climate goals by the CETPartnership - focus areas:

- ▶ **TRI1** Optimised integrated European net-zero emissions Energy System (AT-BMK)
- ▶ **TRI2:** Enhanced zero emission Power Technologies (IT-MUR)
- ▶ **TRI3: Enabling Climate Neutrality with Storage Technologies, Renewable Fuels and CCU/CCS (NO-RCN)**
- ▶ **TRI4:** Efficient zero emission Heating and Cooling Solutions (NL-RVO)
- ▶ **TRI5:** Integrated Regional Energy Systems (AT-BMK)
- ▶ **TRI6:** Integrated Industrial Energy Systems (FI-BF)
- ▶ **TRI7:** Integration in the built Environment (ES-AEI)



TRI3 – scope

Lead: RCN, Ragnhild Rønneberg

Co-lead: SWEA, Aiko Nylander and
FCT, Isabel Cabrita

Main Partners for the implementation:

PtJ/Julich-DE

RVO-NL

Rannis-IS

MUR-It

TR- ČR

Call launch: September 2022

The main aim is to provide technological cleaner solutions for renewable based fuels and CCS (Carbon Capture and Storage) and CCU (Carbon capture and Usage), **promoting RD&D and innovation projects until 2030**, to achieve the European goal of climate neutrality by 2050.

Utilisation of a wide range of energy vectors, in particular **hydrogen and renewable fuels**, as well as hybrid solutions are expected to support cross-sectoral integration. Appropriate liquids and gases, fuel and chemicals technologies will serve flexibility and sector coupling needs in the energy system, and are important enablers for sector integration, as in industry or transport.

CCU/CCS technologies need to be upscaled and deployed to maximise carbon reuse in a circular economy and to remove carbon from the energy system, in particular from hard-to-decarbonize sectors to ultimately deliver negative emissions and to strengthen sector integration with industry.



Thank you for your attention !

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