

STRATEGY-CCUS

Strategic planning of Regions and Territories in Europe for low-carbon energy and industry through CCUS Coordination and Support Action (CSA)

Budget: 3 M€

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ABSTRACT

STRATEGY-CCUS aims to develop strategic plans for CCUS development in Southern and Eastern Europe in the short term (up to 3 years), medium term (3-10 years) and long term (more than 10 years).

Specific objectives are:

- Elaborate local CCUS development plans, with local business models, within promising start-up regions;
- Develop connection plans with transport corridors between local CCUS clusters, and with the North Sea CCUS infrastructure, in order to improve performance and reduce costs, and contribute to build a Europe-wide CCUS infrastructure.

Eight promising regions, within 7 countries (ES, FR, GR, HR, PO, PT, RO) representing 45% of the European CO₂ emissions from the industry and energy sectors (EEA, 2016). These regions satisfy CCUS relevant criteria: presence of an industrial cluster, possibilities for CO₂ storage and/or utilization, potential for coupling with hydrogen production and use, existing studies, and political will. The methodology starts with a detailed mapping of CCUS technical potential of the regions together with a comprehensive mapping of local stakeholders and a process for their engagement. This will pave the way for CCUS deployment scenarios including assessment of 'bankable' storage capacity, economic and environmental evaluation. CCUS development plans will be elaborated in close cooperation with stakeholders, through the Regional Stakeholder Committees and the Industry Club, to ensure plans can be implemented, i.e. socially acceptable.

WP1 – Management and Administration

Lead: BRGM (France)

WP2 – Mapping technical potential of promising regions

Lead: University of Evora (Portugal)
Co-lead: BRGM (France)

WP3 - Social acceptance: stakeholder mapping and engagement

Lead: Fraunhofer (Germany)
Co-lead: CIEMAT (Spain)

WP4 – Mapping environmental and economical drivers

Lead: Total (France)
Co-lead: IFPen (France)

WP6 – Strategic communication and dissemination for CCUS development

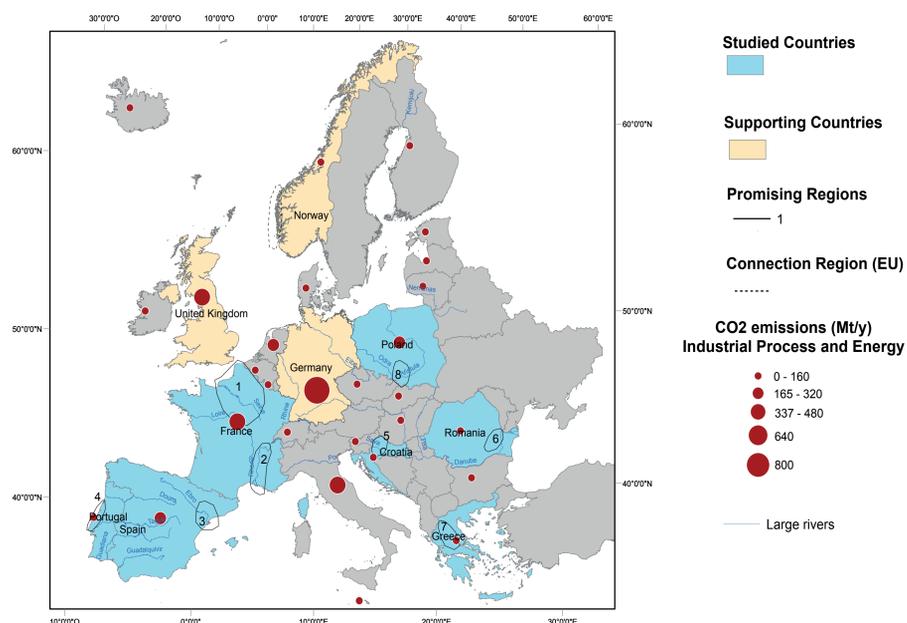
Lead: SCCS (UK)
Co-lead: SNSPA (Romania)

WP5 - Establishing the detailed plans for CCUS at different timescales

Lead: IFPen (France)
Co-lead: NORCE (Norway)

START UP REGIONS

1. Paris basin in France (including Le Havre CCS cluster targeted SET Plan Action 9, Dunkerque, Paris urban area and Orleans agricultural area)
2. Rhône valley in France (including the Fos-Berre/Marseille CCU cluster targeted by the SET Plan Action 9 (as a Flagship Project), and Lyon metropole)
3. Ebro basin in Spain (including Tarragona industrial area, North Castellón and North Teruel areas)
4. Lusitanian basin in Portugal (including the CO₂ sources in the Leiria - Figueira da Foz axis, and extending to the Lisbon industrial region)
5. Northern Croatia (including Zagreb and the Croatian part of Pannonian basin)
6. Galati area in Romania (including Galati, a port town on the Danube river, and its surroundings)
7. West Macedonian area in Greece (including the Kozani and Ptolemaida industrial areas).
8. Upper Silesia in Poland (including the industrial areas of Katowice, Rybnik and Będzin)



PLANNED OUTCOMES AND IMPACTS

STRATEGY CCUS output	Short-term (<3 years) expected impacts	Medium-term (3-10 years) expected impacts	Long-term (>10 years) expected impacts
Detailed plans at national and Transnational scales	Assessment of costs and impacts of CCUS to reach National targets of greenhouse gases reduction goals of the country	Investment opportunities Inclusion of CCUS in the National Determined Contributions (NDC) of countries	Connections between regional CCUS clusters at national and transnational scales Lower decarbonisation cost than if CCUS is not applied
Detailed plans and Roadmaps at regional scale	FEED study for pilot or demonstrator Providing enabling actions Including CCUS in regional plans for climate, energy and industry	Design infrastructure for hubs and clusters Full chain CCUS pilot/demo projects operating	Regional CCUS clusters in operation
Methodology and Best Practices for CCUS assessment at local scale	Defining standard, key data and challenge issues	Policy support and Regional incentives	Adapted regulatory framework
Local business models Techno-economic assessment (TEA) MRIO analyses LCA analyses	Common European methodology to estimate economic and environmental drivers	Easy update of economic evaluation Same methodology used or the potential assessment in new regions	Deployment of CCUS whole chain
Public acceptance findings	Improved perception of the technology Avoiding stranded assets	Policy support and Regional incentives	Strong and sustained government support for the development of CCS, including policy incentives

