

STRATEGY CCUS

Strategic planning for CCUS development

H2020 Call LC-SC3-NZE-3-2018 – Coordination & Support Action

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Journée Energie - SHS au MESRI

Geoscience for a sustainable Earth

brgm



Geoscience for a sustainable Earth

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En bref...

STRATEGY CCUS

Objectif

STRATEGY CCUS va élaborer des plans stratégiques pour le déploiement de la technologie CCUS (CO₂ Capture, Use and Storage) en Europe du Sud et de l'Est

- Plans à court terme (jusqu'à 3 ans), moyen terme (3-10 ans) et long terme (plus de 10 ans)
- Dans 8 régions prometteuses de 7 pays: ES, FR, GR, HR, PO, PT, RO, pays qui représentent 45% du total des émissions de CO₂ européennes des secteurs industriel et énergétique.
- Pour la France : Bassin parisien (de Paris jusqu'à Dunkerque, Le Havre, Orléans) et Vallée du Rhône (de Fos-Berre/Marseille à Lyon)
- Ces plans vont être élaborés à partir de critères techniques (évalués par la capitalisation des projets de recherche passés ou en cours), sociaux, économiques et environnementaux. Et à travers un processus favorisant l'engagement des acteurs locaux.

Partenaires

FR: BRGM, IFPEN et TOTAL; **ES:** IGME et **CIEMAT**; **GR:** CERTH; **HR:** UNIZG-RGNF; **PO:** GIG; **PT:** UEVORA, FCT-NOVA, DGEG et CIMPOR; **RO:** **SNSPA** et GeoEcoMar; **DE:** **Fraunhofer-ISI**; **NO:** NORCE; **UK:** UEDIN .

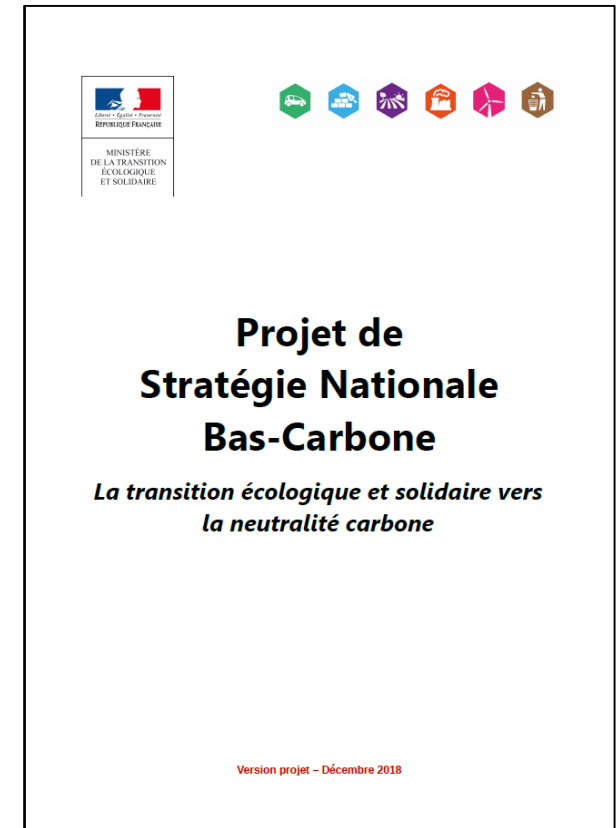
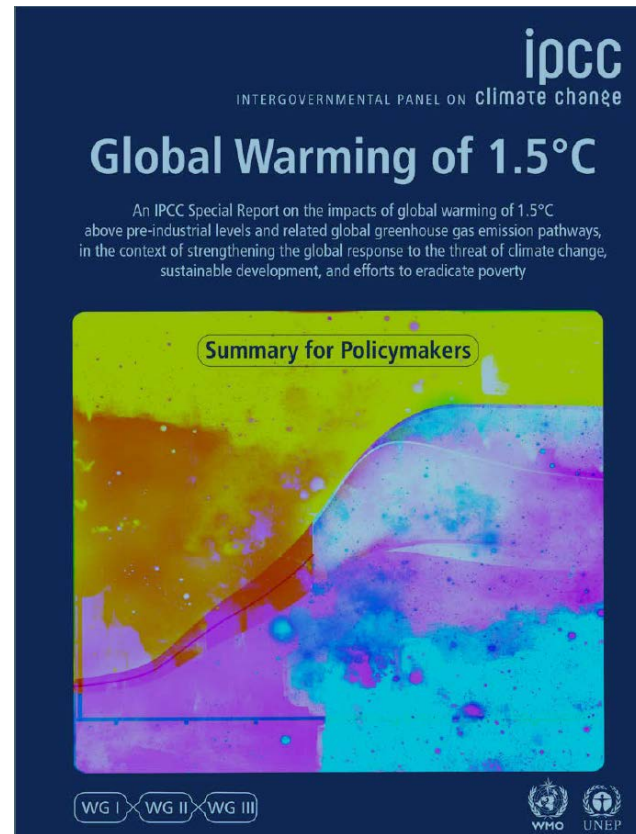
Le CC(U)S et la société

Technologie clé de lutte contre le réchauffement climatique

Encore méconnue

Et parfois controversée

- Crainte d'impacts locaux négatifs
- Remise en question de sa nécessité



Campagne Greenpeace contre le CCS
→ Ils ont oublié que le CO₂ n'explose pas. Il n'est pas inflammable



Intégration SHS

Le texte de l'appel:

Scope:

*Elaboration of detailed plans for comprehensive European CO₂ gathering networks and industrial clusters linked to CO₂ storage sites via hubs, pipeline networks and shipping routes, with due attention to national and border-crossing permitting and regulatory issues. Mapping and understanding the nature and longevity of emission sources, identification of transport corridors and performing initial impact assessments, and developing local business models for delivery of CO₂ capture, transport, utilisation and/or storage (including the separation of capture, transport, utilisation and storage responsibilities) within promising start-up regions. Industrial clusters may include for example power producers, cement and steel factories, chemical plants, refineries and hydrogen production facilities. A hubs-and-clusters approach could also include the coupling of hydrogen production and CCS, possibly using common infrastructure. The assessment of cost-effective ('bankable') storage capacity in selected regions is a key component of strategic planning, as it will provide additional certainty that the required CO₂ storage capacity will be available when needed. Due attention has to be given to regions with potential for early onshore storage development (including enhanced oil recovery). Close cooperation with industrial players, **as well as engagement with local stakeholders**, is paramount. This includes **identifying and involving relevant end users and societal stakeholders and analysing their concerns and needs using appropriate techniques and methods from the social sciences and humanities.***

Intégration SHS

Economie

Côté français, nous étions déjà 3 partenaires : BRGM, IFPEN, TOTAL. Ces deux derniers ont notamment pris en charge les aspects économiques.

Acceptabilité sociétale : recherche d'un partenaire allemand

L'Allemagne a un historique par rapport à l'acceptabilité sociale du CCS:

Local projects on carbon storage that have been started in Germany in recent years have induced positive to neutral reactions as well as strong opposition by the local public.

- *A research project at Ketzin which has started to inject CO₂ in 2008 has been well accepted by local politicians and the local public.*
- *It is compared to a project initiated by Vattenfall at Beeskow where Vattenfall wants to explore whether the region is suitable for large scale commercial on shore storage and has met strong local opposition by several societal stakeholders.*

Sciences politiques : intégration d'un partenaire roumain

National University of Political Studies and Public Administration Bucharest (SNSPA)



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What drives local public acceptance – comparing two cases from Germany

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Abstract

Local projects on carbon storage that have been started in Germany in recent years have induced positive to neutral reactions as well as strong opposition by the local public. In this paper, a comparative case study of two storage projects is presented: The first case under study is the CO₂ Sink research project at Ketzin which has started to inject CO₂ in 2008 and has been well accepted by local politicians and the local public. It is compared to a project initiated by Vattenfall at Beeskow where Vattenfall wants to explore whether the region is suitable for large scale commercial on shore storage and has met strong local opposition by several societal stakeholders. Cases are compared regarding project properties, communication strategies and public perception, as well as local context and history in order to identify factors that contributed to the respective positive or negative reaction.

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Keywords: CCS-communication, public acceptance, CO₂-Sink, carbon storage

Intégration SHS – acceptabilité sociale

Volonté de créer un WP dédié à l'acceptabilité sociale et de le confier à un organisme spécialisé

Les échanges pendant le montage avec le Fraunhofer Institute for Systems and Innovation Research ISI, Karlsruhe, Allemagne :

- Premier échange par email : OUI!!! ils ont répondu et ont accepté un échange téléphonique
- Échanges téléphoniques
 - Fraunhofer accepte de prendre la coordination du WP dédié à l'acceptabilité sociale
 - Ils nous ont proposé des taches.
 - Nous avons discuté sur le contenu pour être bien en phase
 - On leur a demandé de suggérer un autre organisme pour être co-leader avec eux.
 - Parfait ! Ils nous suggèrent un partenaire espagnol CIEMAT.
 - CIEMAT allait déjà participer dans un autre WP. 😊 Ils ont plusieurs Instituts, dont un de science sociales
- Fraunhofer et CIEMAT ont développé leur WP avec beaucoup de liberté
- Ils ont participé à tous les meetings techniques
- Ils ont engagé tous les partenaires dans les actions

WP1 – Management and Administration Lead: BRGM (France)

WP2 – Mapping technical potential of promising regions
Lead: University of Evora (Portugal) co-lead: BRGM (France)

Task 2.1 – Spatial analysis – methodologies for identifying and characterising clusters, transport options and storage.
Task 2.2 - Spatial analysis – Gathering key data for characterising sources, transport options, storage and uses in promising regions.
Task 2.3 – CO₂ storage resources management
Task 2.4 - Mapping European Emission Allowances (EUA) of CO₂ at promising region.

WP3 - Social acceptance: stakeholder mapping and engagement
Lead: Fraunhofer (Germany) co-lead: CIEMAT (Spain)

Task 3.1. Identification of relevant stakeholders.
Task 3.2. Scoping: Initial stakeholder consultation.
Task 3.3 Social acceptance and consultation: Regional stakeholder committees.
Task 3.4 Public acceptance: Survey with members of the general public.

WP4 – Mapping environmental and economical drivers
Lead: Total (France) co-lead: IFPen (France)

Task 4.1: Definition of a common framework for LCA, MRIO and TEA designs
Task 4.2: Generic LCA modeling and data collection
Task 4.3: LCA of CCUS scenarios for the different regions
Task 4.4: Multiregional Input Output Assessment (CIEMAT)
Task 4.5: Local business models and bankable storage

WP6 – Strategic communication and dissemination for CCUS development
Lead SCCS (UK) co-lead: SNSPA (Romania)

Task 6.1: Communication-Dissemination & Exploitation Strategy
Task 6.2: Communication Plan
Task 6.3: Dissemination and Exploitation Plan
Task 6.4: Data Management Plan
Task 6.5: Project website
Task 6.6: Online – Webinars meetings
Task 6.7: Stakeholder Engagement toolbox
6.8 Regional Events

WP5 – Establishing the detailed plans for CCUS at different timescales
Lead IFPen (France) co-lead: IRIS (Norway)

Task 5.1: Implement key data in scenario tool and define scenarios
Task 5.2: Economic evaluation of regional scenarios
Task 5.3: Economic evaluation of national and transnational scenarios
Task 5.4 - Identifying sustainable cooperation schemes
Task 5.5 – Identify issues to facilitate the deployment of CCUS in the most promising regions and prepare recommendations for the deployment of CCUS
Task 5.6 – Analyse the impact of the scenarios on the EU ETS.

