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\* connect \* construct \* share



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An introduction to

# The European Carbon Capture and Storage (CCS)

## Demonstration Project Network

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[www.ccsnetwork.eu](http://www.ccsnetwork.eu)





## Background

In its 2008 climate and energy package, the European Union stated that carbon dioxide emissions need to be cut by at least 50% by the year 2050. An important element of this package was the recognition of the role for technologies to capture, transport and store CO<sub>2</sub> (CCS).

The European Council agreed to bring forward the development of CCS demonstration projects in Europe. In order to support them, the European Commission established the European CCS Demonstration Project Network (the CCS Network) in 2009.



## The European Carbon Capture and Storage Demonstration Project Network

The CCS Network's aim is to accelerate the deployment of safe, large-scale and commercially viable CCS projects. To achieve this goal, this community of leading CCS projects is committed to sharing knowledge and experiences.

The successful operation of these projects is seen as crucial for enabling the widespread commercial application of near zero emission power plants or industrial installations, to allow Europe to reach its environmental objectives, stimulate job creation, and generate a sustainable economic and industrial base.

The CCS Network, originally composed by 6 projects, currently consists of 4 leading CCS projects in

Europe: the Don Valley power project, the ROAD post-combustion power project and the Sleipner gas processing project, each capturing or planning to capture around 1 Million of CO<sub>2</sub> tonnes per year.



# The Network Member Projects



Don Valley,  
UK  
*Power sector*

ROAD, NL  
*Power sector*

Compostilla, ES  
*Power sector*

Porto Tolle, IT  
*Power sector*

Sleipner, NO  
*Gas processing*

Bełchatów, PL  
*Power sector*

Jämschwalde,  
DE  
*Power sector*

Note: Projects in light blue were cancelled and partners of Compostilla stay in “collaborative” status



# The CCS Network Structure

The Network consists of the following bodies:

**The European Commission (EC):** The EC provides overall coordination and context to the actions of the Network, and retains a seat on the Steering Committee.

**Members:** The Network consists of Member projects that fulfil the membership criteria, or other projects which do not fulfil the criteria but are deemed valuable to the Network and their consortium partners.

**The Steering Committee (SC):** The SC is composed of representatives of each of the project proponents and the EC.

**Associate Members:** Entities that contribute to the Network projects (The Crown Estate).

**The Advisory Forum (AF):** The AF comprises representatives of national administration, institutions and other key stakeholder organisations.

**The Network Secretariat:** The Network Secretariat is responsible among other, for:

- organising, facilitating and reporting on annual and interim events,
- collecting and analysing information for publication of progress and thematic reports,
- managing the knowledge-sharing activities,
- supporting members,
- communicating and promoting the Network to the global CCS community and the general public,
- managing the websites, intranet and social media.



## Secretariat of the CCS Network

The Network Secretariat support is provided by:



*The **Global CCS Institute** is a not-for-profit independent entity. Its global members include governments, industry and academia. It focuses on knowledge sharing and advocacy. The Institute currently supports a number of Networks throughout the world.*



***SINTEF** is one of the largest independent European research institutes, focusing on power generation and energy conversion technologies, distribution and end-use.*



***TNO** applies scientific knowledge with the aim of strengthening the innovative power of industry and government.*



## CCS Project Network objectives

The European CCS Project Network plays a central role in the demonstration of CCS technologies in Europe. It has been established to enhance co-ordination and collaboration between first-movers and to add value to its members through activities such as:

- ✎ Facilitating the identification of best practices with respect to large-scale CCS projects
- ✎ Enabling knowledge sharing, primarily by collecting and disseminating information generated by the projects in the course of their implementation
- ✎ Providing a common European identity to Network members
- ✎ Leveraging the experiences gained from projects and evidence generated to gain public confidence about the feasibility and safety of CCS
- ✎ Providing consistent and collective information about project progress to the public
- ✎ Promoting CCS, the EU's leadership and the cooperation potential in CCS to third parties/countries



## The CCS Network added value

To ensure the support of the public as we progress from the planning phase to exhibition and operation of demonstration plants, it is essential to present CCS within its wider purpose as part of a co-ordinated, Europe-wide initiative to develop low-carbon technologies and help them realise their future potential.

The CCS Project Network provides context and confers an internationally-recognised identity on the member projects.

The community of CCS Project Network members is in a unique position to share experiences and build stronger relationships with each other, with EU Member States and internationally.

There is still much learning to be done to integrate the CCS value chain and overcome the legislative and non-legislative barriers.

We believe that through an ongoing exercise of exchanging information and sharing best practices at all stages of the demonstration projects, our efforts in Europe become more efficient and more sustainable.



## Helping projects to make connections

The European CCS Project Network secretariat aims to help projects identify knowledge and experience that can be shared for mutual advantage. The Network also provides support establishing lessons learned as projects progress and helping Network members and the wider CCS community to capitalise on these lessons.

The Network helps to:

- ✦ **Connect** with people from similar projects at dedicated CCS Network events
- ✦ **Construct** areas of knowledge to promote practical implementation of CCS
- ✦ **Share** experience and best practices for the future through the following integrated services:
  - ✦ **Member support**
  - ✦ **Event facilitation**
  - ✦ **Representation**
  - ✦ **On-line facilities**



## CCS Network support to projects

### **Member support**

*The CCS Network provides support to member projects to bring in and access knowledge, experience and problem-solving capacities and draw upon existing networks, joint industry projects and other sources of knowledge.*

### **Event facilitation**

*The CCS Network Secretariat on behalf of the demonstration projects network organises, designs and facilitates participative events aimed at knowledge sharing.*

*Knowledge sharing between projects to aid deployment is of the utmost and increasing importance, given the lack of substantive incentives for operation.*

*The CCS Network aims to aid both the member projects and wider stakeholders with issue focused discussions and lessons learnt, with the Secretariat*

*facilitating, aiding, guiding and disseminating these results.*

*Face to face confidential knowledge sharing events are held annually. During the events, project members are asked to join thematic workshops with discussions undertaken aiming to tackle specific key issues the projects' may be facing.*

*To date, the CCS Network has had thematic groups in permitting, risk management, regulatory development, public engagement, capture, storage and transport.*

*After the event, thematic reports are produced summarising key discussions and findings from the events.*

*These reports are of significant importance as they provide a unique source of shared experiences, problem solving and lessons learnt.*



## CCS Network support to projects

### **Representation**

*The CCS Network proactively assists projects to disseminate valuable activities and results.*

*It represents the Network as a community, and individual projects where appropriate, as global ambassadors for EU CCS demonstration in communications with external stakeholders.*

*Communications include presentations, attendance at international events and production of promotional materials.*

### **On-line facilities**

*A public website containing general information about the activities of the CCS Network has been operating since 2009.*

*The website is a hub for information about Europe's CCS projects, focusing on the activities and outcomes of the Network collectively and its individual member projects.*

*A dedicated page for each project enables them to provide specific information about their aims and activities.*

*A Network private site provides facilities to engage in discussion forums, share documents and exchange expertise.*



## More information | Contact

If you wish to know more, join the Network itself, or contribute on specific key issues, please get in contact with us:

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**This introductory booklet aims to help understand the role of the European CCS Demonstration Project Network in advancing CCS technology from demonstration to commercialisation.**

**The material is provided by the CCS Project Network Team, which is dedicated to building links between the projects and stakeholders. In addition to this booklet, the following link provides further information about how the CCS Project Network will operate and how to apply for membership on our website.**

**[CCSNETWORK.EU](http://CCSNETWORK.EU)**

