



European CCS Demonstration Project Network

**Simon Bennett, European
Commission, DG Energy**

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CCS is part of Europe's roadmap

Energy Roadmap 2050 – December 2011

"A mixed portfolio delivers the lowest cost decarbonisation and the most opportunities for innovation and security of supply"

Renewables

- 20% of energy by 2020 across the EU
- 75% of energy by 2050 in the High Renewables Scenario

Gas

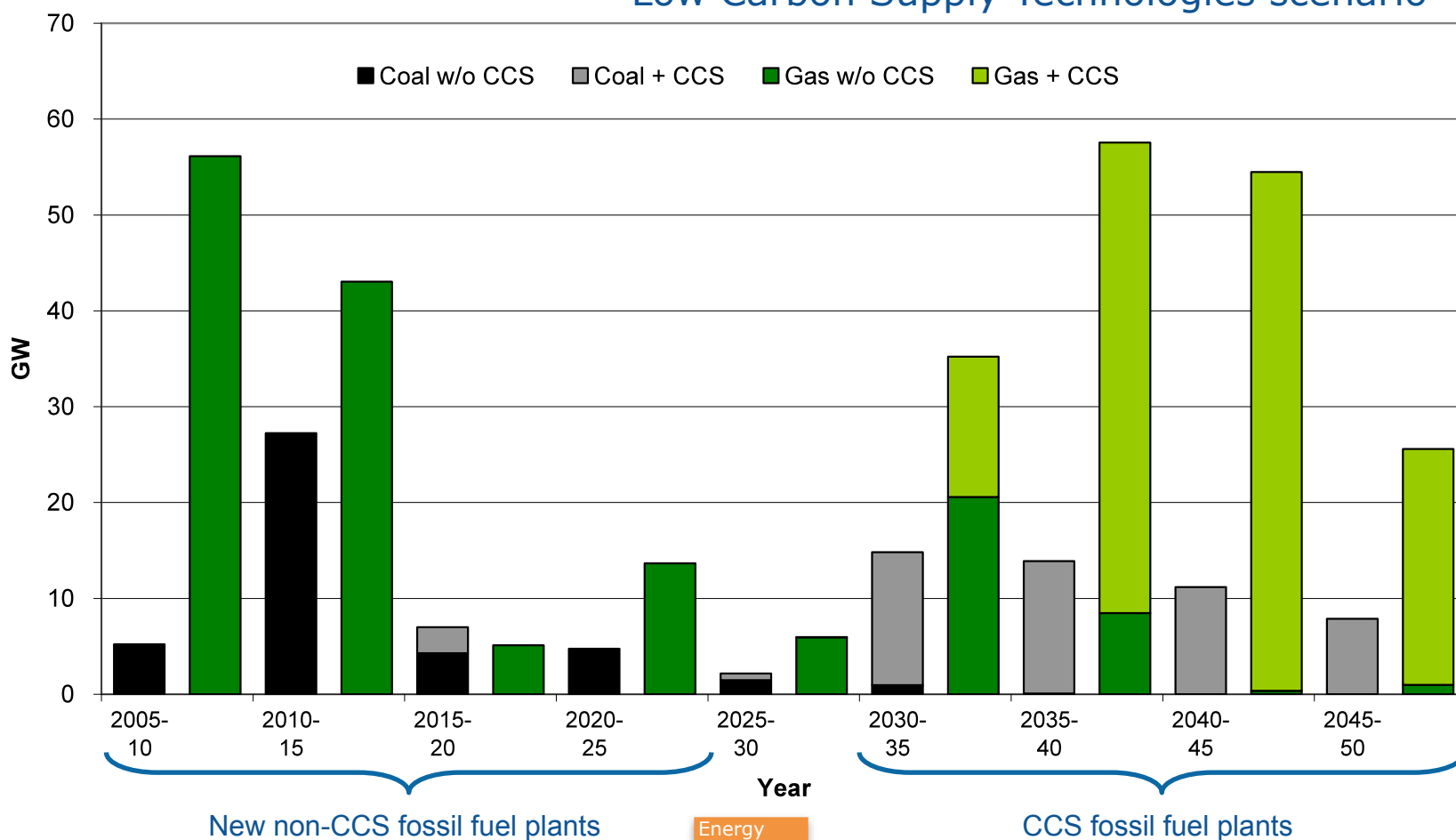
- Gas is a fossil fuel that cannot decarbonise electricity alone
- Gas price forecasts remain uncertain
- From 2035 gas plants are mainly built with CCS

CCS

- 24% CCS in EU electricity in the lowest cost scenario, 32% in the low nuclear scenario
- No new investments in coal without CCS after 2025
- For Member States continuing to use coal after 2030, CCS is not an option – it's a necessity!

Investments in fossil fuels to 2050

- Low Carbon Supply Technologies scenario





2050 Roadmap messages for CCS

- *European electricity consumption is set to increase as a proportion of total energy*
- *We are set on a decarbonisation course but not a 'no fossil fuels' course*
- *CCS is as much about gas as it is about coal*
- *Need to focus on putting everything in place for commercial investments in CCS in 15 years from now:*
 - *Business case*
 - *Storage mapping*
 - *Regulatory environment, especially MVA/MMV*
 - *Experience with injection in European geologies*
 - *Viability under intermittent conditions, variability in the CCS chain, and retrofitting*

Most of these things are underway or need to start now

Most can only be achieved through knowledge sharing

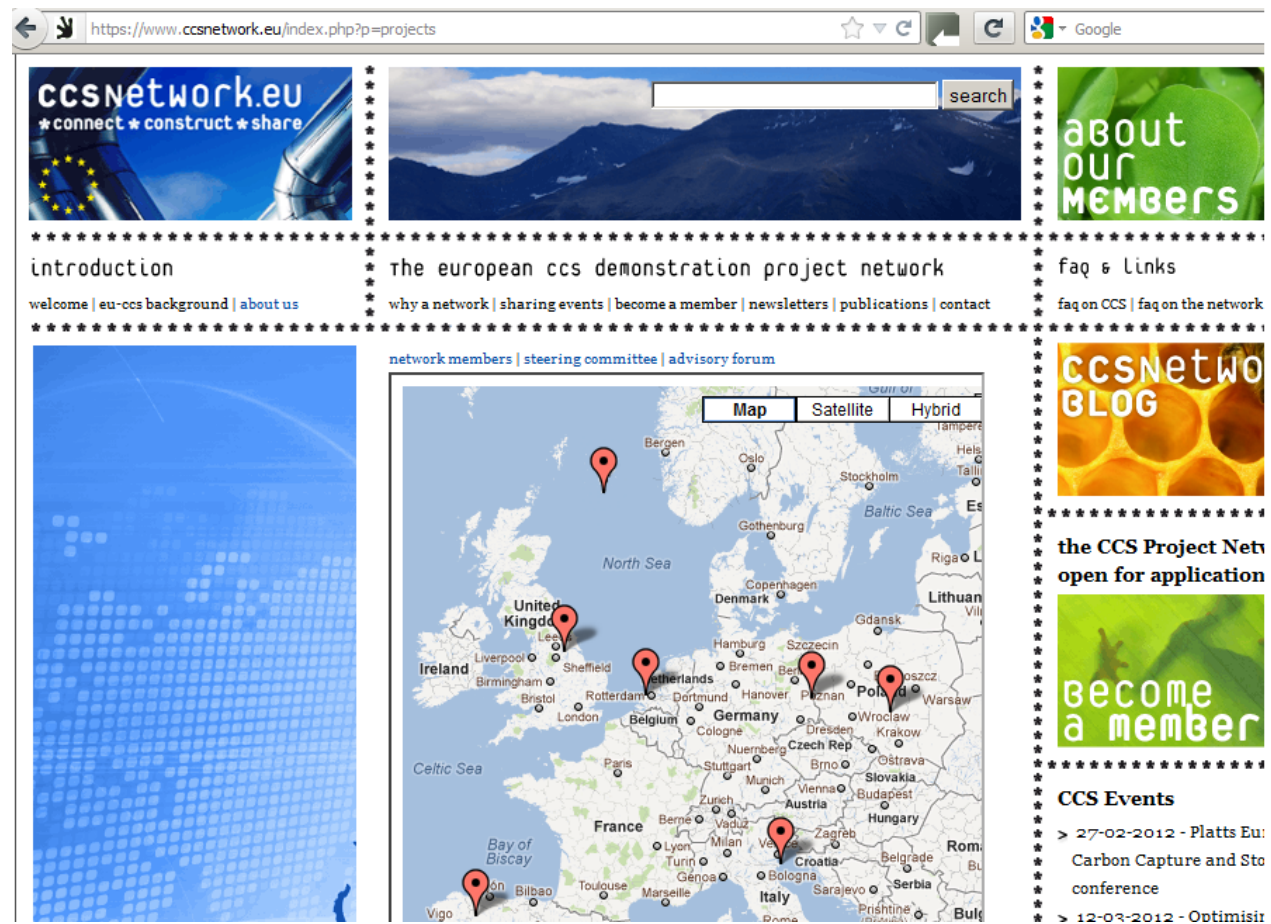
The CCS Project Network

*Large-scale
demo projects*

*Knowledge
sharing*

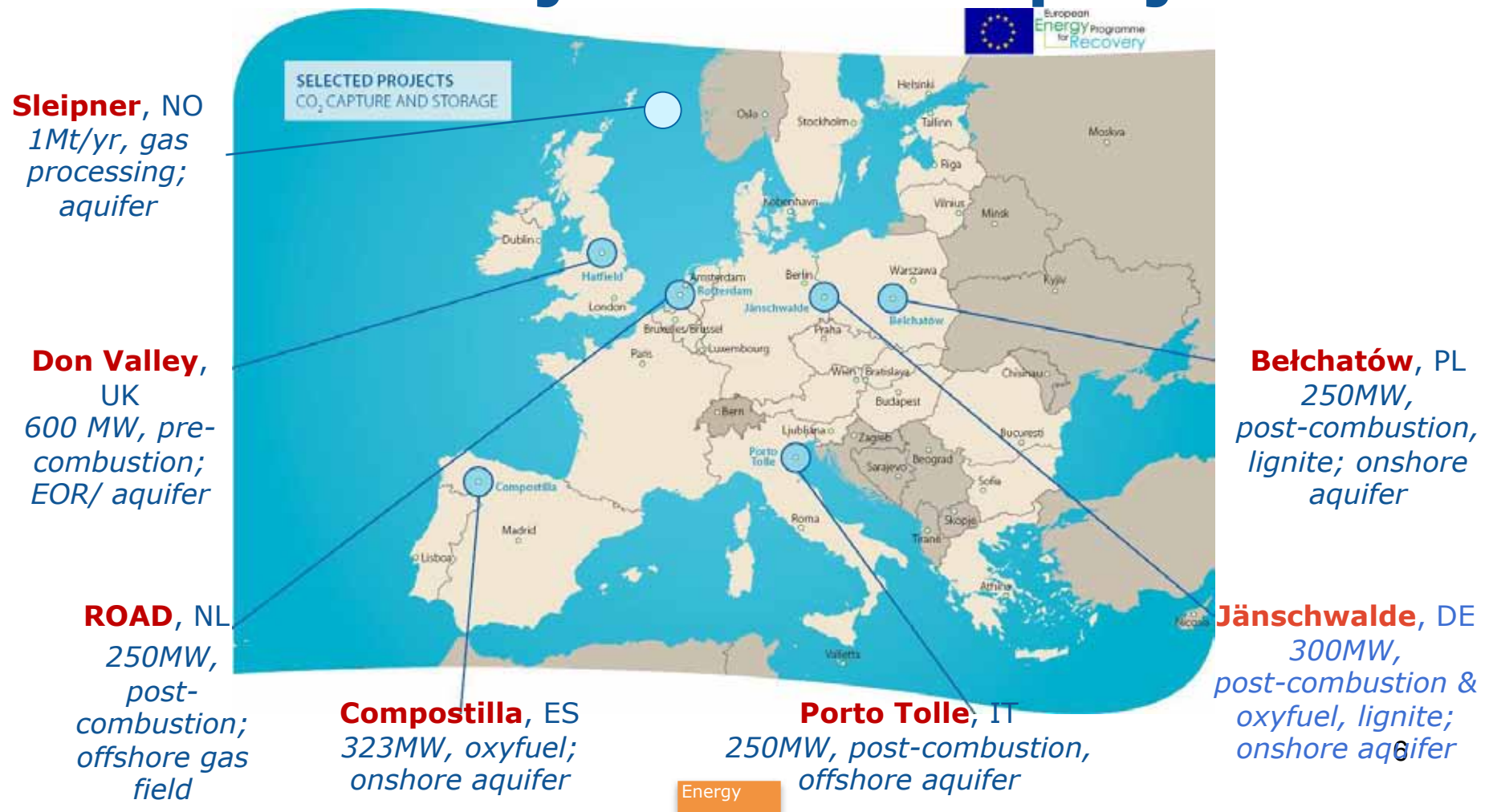
*Progress
reporting*

*International
cooperation*

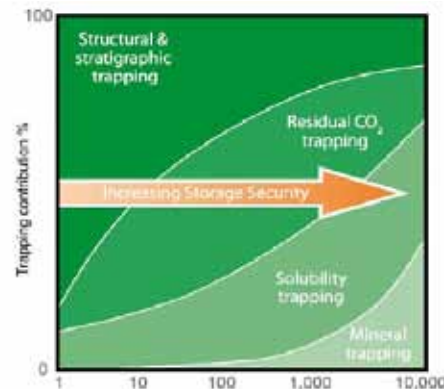
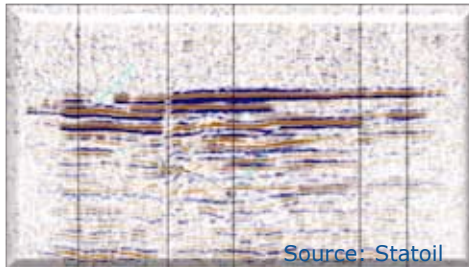


The screenshot shows the CCS Project Network website. The header includes the URL <https://www.ccsnetwork.eu/index.php?p=projects> and the Google logo. The main content area features a large map of Europe with red pins indicating project locations in the UK, Ireland, Germany, France, and Italy. The map is titled "Map" and includes a search bar. To the left of the map is a sidebar with the text "ccsnetwork.eu *connect *construct *share" and a search bar. To the right of the map is a sidebar with the text "about our MEMBERS" and "become a member". The bottom of the page features a section titled "CCS Events" with a list of upcoming events: "27-02-2012 - Platts EU: Carbon Capture and Storage conference" and "12-03-2012 - Optimisir".

The CCS Project Network projects



Sharing knowledge on storage



Source: Benson

Key questions considered by the Network in 2011

- *How to design a risk driven MVA plan for a demonstration project?*
- *How to define quality requirements for modelling that will add confidence to the storage approach and will satisfy permitting requirements?*
- *How to create an integrated, iterative feedback learning approach to site characterisation, modelling and MVA*

Result: A database of tools and techniques for modelling, and user's experiences with these tools

- 4 meetings in 2011 on storage
- Next meeting on 25/26 May 2012



Expectations for today and tomorrow

- *Deepen the connections between EU, US and Canadian large-scale CCS and injection projects*
- *Move forward global knowledge on CCS project development and its challenges*
- *Start to develop some common understandings of how large-scale CO₂ storage projects can proceed commercially in a well-regulated environment*
- *Explore whether this type of event, or similar, should be recommended to governments and funding bodies in future*
 - *Is the format right?*
 - *Is the subject matter right?*



Energy