

Press Release 2 June 2015

## 10th CO<sub>2</sub>GeoNet Open Forum - inspiring and informative

Over one hundred and thirty people from Europe, USA, Canada, Australia and South Korea met in Venice from 11 to 13 May 2015 to present and discuss the current state of play of Carbon dioxide Capture and Storage (CCS) in terms of research achievements, policy, public outreach and business development. The theme of the 10<sup>th</sup> anniversary of the Open Forum was "CO2 storage – the cornerstone of our low carbon future". The event, organised by the CO2GeoNet Association in collaboration with the European Commission, the US Department of Energy and the European Energy Research Alliance, was a great success with strong involvement of key stakeholders and positive feedback from the participants.

CCS is one of the three important mitigation measures for reducing the emission of greenhouse gases, together with increasing the share of renewables in the energy mix and improving energy efficiency, as highlighted by the  $5^{th}$  IPCC assessment report.

Presentations and discussions in Venice emphasised that CCS is already happening. 20 Mt of  $CO_2$  per year are currently stored in 12 demo- to industrial-scale storage sites, two in Norway where a  $CO_2$  tax exists, and the others in North America and Brazil where  $CO_2$  storage is commonly combined with Enhanced Oil Recovery (EOR). Outside these two situations where a business model for CCS already exists, wider deployment of CCS suffers from a lack of economic incentive, in particular the low  $CO_2$  price on the EU Emissions Trading Scheme and from the difficulty in balancing two major transitions; decarbonization and creation of competitive energy markets. Stakeholders in Venice called for consistent policies across the EU and the world to enable both transitions and therefore effective climate change mitigation.

Sharing the valuable experience gained through the existing and planned CO<sub>2</sub> storage projects in North America and Europe illustrated that these type of exchanges are very fruitful and create a good basis for further exchange and international collaboration. Demonstration and pilot projects in the USA, Canada and the EU offered new insight on key aspects including how easily storage capacity and injectivity can be accessed, Modelling, Monitoring and Verification to confirm the site is behaving as expected and public engagement. Each site also highlighted new research questions that need to be answered in order to reduce costs and increase the efficiency of the storage process. The key message is that more demonstration and pilot projects in a wide range of geological settings are needed to rapidly advance CCS technology.

Another important message from the Open Forum is that sufficient storage potential is available, but needs to be certified in terms of sustainable injection rates of CO<sub>2</sub>, such that storage space is available when needed and that the resource can be utilised efficiently. Assurance of storage capacity is a crucial boundary condition for the sustainable commercialization of CCS technology. It was consensually accepted by the participants that this certification can be executed in a staged manner over future decades but that it is urgent to start new storage operations now in order to positively contribute to reduction of emissions, to avoid the worst impacts of climate change and to reduce the cost of keeping atmospheric carbon dioxide levels as low as possible. Existing storage sites and 'sweet spots' where significant storage potential has been identified offer enough storage capacity for at least the next decade with more capacity to

come online as detailed assessments move from identified storage potential to confirmed storage capacity. Building on existing demonstration projects and assured capacity will pave the way for the next stages of CCS implementation.

The importance of further research activities for decreasing costs and accelerating the CCS learning curve was also emphasised. Further  $CO_2$  storage pilot sites and CCS demonstration projects are needed in Europe and worldwide, with a particular focus on public outreach activities. Experience at sites across the world has shown that storage operators can be successful in creating a positive view on  $CO_2$  storage by working together with the local community. Experience teaches us that it is critical to engage the local population from a very early stage in the design and the development of  $CO_2$  storage projects.

The outcomes of the 10<sup>th</sup> CO<sub>2</sub>GeoNet Open Forum, including a short report, presentations and videos of speakers, are being uploaded at <a href="http://conference.co2geonet.com/">http://conference.co2geonet.com/</a>

## About CO₂GeoNet

CO<sub>2</sub>GeoNet is the European scientific body on CO<sub>2</sub> geological storage. The Association currently comprises 26 research institutes from 19 European countries, and brings together over 300 researchers with the multidisciplinary expertise needed to address all aspects of CO<sub>2</sub> storage. With activities encompassing joint research, training, scientific advice, information and communication, CO<sub>2</sub>GeoNet has a valuable and independent role to play in enabling the efficient and safe geological storage of CO<sub>2</sub>. CO<sub>2</sub>GeoNet was created in 2004 as a Network of Excellence supported by the EC FP6 programme for 5 years. In 2008, CO<sub>2</sub>GeoNet became a non-profit association under French law. From 2013, the membership of CO<sub>2</sub>GeoNet expanded thanks to the support of the now completed FP7 CGS Europe project. New Members continue to join CO<sub>2</sub>GeoNet to further enhance the pan-European coverage and expertise of the Association.

More about CO<sub>2</sub>GeoNet at www.co2geonet.com



Austria: GBA - Geologische Bundesanstalt; Belgium: RBINS-GSB - Royal Belgian Institute of Natural Sciences; Croatia: UNIZG-RGNF - University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering; Czech Republic: CGS - Czech Geological Survey; Denmark: GEUS - Geological Survey; Denmark: GEUS - Geological Survey of Denmark and Greenland; Estonia: TTUGI - Institute of Geology at Tallinn University of Technology; France: BRGM - Bureau de Recherches Geologiques et Minieres; Germany: BGR - Bundesanstalt für Geowissenschaften und Rohstoffe; Germany: GFZ - German Research Centre for Geosciences / Deutsches GeoForschungsZentrum; Hungary: MFGI - Magyar Földtani és Geofizikai Intézet; Italy: OGS - National Institute of Oceanography and Experimental Geophysics; Italy: URS - Universita di Roma "La Sapienza"; The Netherlands: TNO - Netherlands Organisation for Applied Scientific Research; Norway: IRIS - International Research Institute of Stavanger; Norway: NIVA - Norwegian Institute for Water Research; Norway: SPR - SINTEF Petroleum Research; Poland: PGI-NRI - Polish Geological Institute - National Research Institute; Romania: GeoEcoMar - National Institute of Marine Geology and Geoecology; Slovenia: GEO-INZ - Geoinženiring d.o.o.; Spain: CIUDEN - Fundación Ciudad de la Energía; Spain: IGME - Instituto Geológico y Minero de España; Switzerland: ETH - Swiss Federal Institute of Technology Zurich; Turkey: METU-PAL - Middle East Technical University Petroleum Research Center; UK: BGS - British Geological Survey; UK: HWU - Heriot-Watt University; UK: IMPERIAL - Dept. of Earth Science and Engineering, Imperial College London.