17th CO2GeoNet Open Forum

20 - 23 May 2024
Venice, San Servolo Island

21-22 May 2024

UPSCALING TO GIGATONNES EVERY YEAR

optimising CCS to meet climate targets

20 May 2024
Pre-Open Forum workshop

Project de-risking through phased commercial CCS development

23 May 2024
Post-Open Forum workshop

CCS exploration and monitoring

Monday, 20th May - Pre-Open Forum workshop

13:15 **Registration**

Project de-risking through phased commercial CCS development

14:00 **Welcome and introduction**
Pierre Cerasi (CO2GeoNet-SINTEF)

14:10 **Lessons learned from commercial CCS projects in North Dakota, USA: site characterization, permitting, business cases and operations**
James A. Sorensen - Energy & Environmental Research Center at the University of North Dakota

14:25 **BECCUS and decarbonisation through negative emissions**
Rachel Skudder - RWE

14:40 **Trudvang CO2 storage license: current status and further development stages**
Cato Hardy & Sander Hofker Berg - Trudvang CCS ANS

14:55 **Sharing learnings from developing large scale CCS / hub projects**
Anneke Kleinpenning - Shell

15:10 **Interactive panel session**

15:40 ***Coffee break***

16:10 **Legal status overview for CCS**
Lena W. Østgaard - IOM Law

16:25 **Next generation cost-effective monitoring for offshore CO2 storage**
Philip Ringrose – NTNU

16:40 **The Elephant and other stories: learnings and challenges in the quest for Gt-scale subsurface stores**
Nick Lee - PGS

16:55 **From initial screening to more realistic storage capacity estimates using efficient dynamic modelling**
Sidsel Lindsø - ExploCrowd

17:10 **Interactive panel session**

17:40 **Looking forward & Closing remarks**
Jasper de Reus - CO2GeoNet-ETH

Monday, 20th May - Welcome cocktail

18:30 Sala Basaglia, San Servolo Island

Welcome speech by Ceri Vincent, CO2GeoNet President

Diploma ceremony for CO2GeoNet-funded Master's students

The **International Master in CO2 Geological Storage** is a one-year course providing a comprehensive preparation for young professionals interested in working in the field of CO2 Geological Storage (CCS).
The course consists of classes, fieldwork, and an internship at one of the CO2GeoNet research institutes.
The Master is jointly organised by Sapienza University of Rome and the University of Zagreb and is supported by CO2GeoNet.

Tuesday, 21st May - Open Forum - Day 1

8:30 **Registration**

9:00 **Welcome**
Barbara Merson - CO2GeoNet Secretary General

9:05 **Objectives of the 17th CO2GeoNet Open Forum**
Ceri Vincent - CO2GeoNet President

9:15 **Keynote Talk: A vision for the EU CO2 storage investment atlas and the role for the geological community**
Anca Petre - European Commission, DG Climate Action

10:00 **Interactive panel session**

10:30 ***Poster pitches & Coffee break***

Session 1: Learning from low-carbon initiatives and the role for CCS
Chair: Ceri Vincent (CO2GeoNet President)

11:15 **Promoting Carbon-Free Electricity Certificate (CFEC) to establish a CCS power plant ecosystem**
Chunto Tso - Taiwan Institute of Economic Research

11:30 **PV in the age of deep decarbonization**
Andreas Mustad - Nexwell

11:45 **Making CCUS happen: public imperatives, business models and capital injections**
Jemima Bruin-Bland - Arup

12:00 **Interactive panel session**

12:45 ***Lunch break***

Session 2: Balancing competing interest for subsurface real estate
Chair: Roman Berenblyum (CO2GeoNet-NORCE)

14:00 **The OGS contribution to the 20-year-long journey of CO2GeoNet**
Nicola Casagli - National Institute of Oceanography and Applied Geophysics - OGS

14:05 **Combining developer interests to access offshore subsurface carbon stores**
Adrian Topham - The Crown Estate

14:20 **Securing access to CO2 storage capacity – learnings from small-medium-size emitters in inland Europe**
Aymeric Reymond - Airfix

14:35 **Pore space as the driver for hydrogen project developments in the US**
Miguel Silva - Avalon International Corp.

14:50 **Interactive panel session**

15:20 ***Coffee break***

Session 2 (continued)
Chair: Suzanne Hurter (CO2Geonet-TNO)

15:50 **CO2-Plume Geothermal: enabling CCS**
Jasper de Reus - ETH Zurich

16:05 **Overview of technologies combining geothermal energy and CCS: mutual benefits and contributions to Net Zero targets**
Nicola Clarke and Rowena Stead - IEAGHG and BRGM

16:20 **The role of planification in the social governance of the subsurface: the case of CCS and mining renewal in France**
Sébastien Chailleux - Sciences Po Bordeaux

16:35 **Interactive panel session**

17:00 **Closing remarks Day 1**
Suzanne Hurter - CO2Geonet-TNO

Tuesday, 21st May – Networking dinner

19:00 Sala Grecale, San Servolo Island

Wednesday, 22nd May - Open Forum - Day 2

9:00 **Welcome and introduction**
Barbara Merson - CO2GeoNet Secretary General

Session 3: Exchanging perspectives on global CCS developments
Chair: Sabina Bigi (CO2GeoNet-Sapienza)

9:05 **PORTHOS - Towards the first large-scale CO2 transport and storage infrastructure in the European Union**
Willem-Jan Plug - EBN

9:20 **Novelties in well and platform design to mitigate risks with respect to injecting in depleted reservoirs - a perspective from the Netherlands**
Anneke Kleinpenning - Shell

9:35 **Stenlille - First European full scale onshore CO2 storage project**
Carsten M. Nielsen - GEUS

9:50 **Interactive panel session**

10:30 ***Coffee break***

Session 3 (continued)
Chair: Ceri Vincent (CO2GeoNet-BGS)

11:00 **Development of CCS projects in Japan**
Yoshihiro Sawada - Japan CCS Co., Ltd.

11:15 **CO2 geological storage: update in China**
Lang Liu on behalf of Tiu Li - SINTEF & Chinese Academy of Sciences

11:30 **CCS for clean energy development in Ghana's Energy Transition Framework: a case study for Sub-Saharan Africa**
Joseph Essandoh-Yeddu - Institute for Oil and Gas Studies, University of Cape Coast

11:45 **Interactive panel session**

12:30 ***Lunch break***

Session 3 (continued)
Chair: Jasper de Reus (CO2GeoNet-ETH)

13:45 **Hungarian perspectives of CCS**
Dóra Cseresznyés - Supervisory Authority for Regulatory Affairs

14:00 **CCS in Austria, current developments**
Jakob Kulich - Montanunviersität Leoben

14:15 **CCS in Spain: from exploration permits to future development**
Paula Canteli - IGME-CSIC

14:30 **Interactive panel session**

15:15 ***Coffee break***

Session 3 (continued)
Chair: Carsten M. Nielsen (CO2GeoNet-GEUS)

15:45 **Geophysical monitoring of anthropic underground operations in Italian offshore: approaching the Ravenna CCS hub activities**
Mario Anselmi - Istituto Nazionale di Geofisica e Vulcanologia (INGV)

16:00 **The role of carbon storage in the Med**
Nikolas Rigas - Energean

16:15 **Storage of CO2 on the Norwegian Continental Shelf**
Aslaug Eskeland Janssen - Norwegian Offshore Directorate

16:30 **Interactive panel session**

17:00 **Closing remarks Day 2**
Ceri Vincent - CO2Geonet President

Thursday, 23rd May - Post-Open Forum workshop

CCS exploration and monitoring

9:00 **Welcome and introduction**
Roman Berenblyum - CO2GeoNet - NORCE

Session 1: Selecting effective monitoring solutions
Chair: Roman Berenblyum (CO2GeoNet–NORCE)

9:10 **A tool for selecting monitoring techniques**
Ceri Vincent - British Geological Survey

9:25 **Competitively-scoped MMV – An industry approach**
Claudio Filomena - Shell Global Solutions International B.V.

9:40 **ACT2 Digimon cost-effective monitoring**
Arvid Nøttveit - NORCE

9:55 **Interactive panel session**

10:40 ***Coffee break***

Session 2: Deployment at sites
Chair: Jasper de Reus (CO2GeoNet-ETH)

11:10 **Eight years of CO_2 injection at the Aquistore storage site: lessons learned on monitoring**
Rick Chalaturnyk - University of Alberta

11:25 **The Northern Lights: how we built a robust monitoring and response plan**
Renata Meneguolo - NL DA / Equinor ASA

11:40 **Baseline soil gas data collection: Spicer project, Czech Republic**
Petr Jirman - Czech Geological Survey

11:55 **Interactive panel session**

12:40 ***Lunch break***

Session 3: New monitoring concepts

Chair: Paula Canteli (CO2GeoNet- IGME-CSIC)

14:00 **ACT4 SPARSE monitoring concepts**
Michael Jordan - Sintef

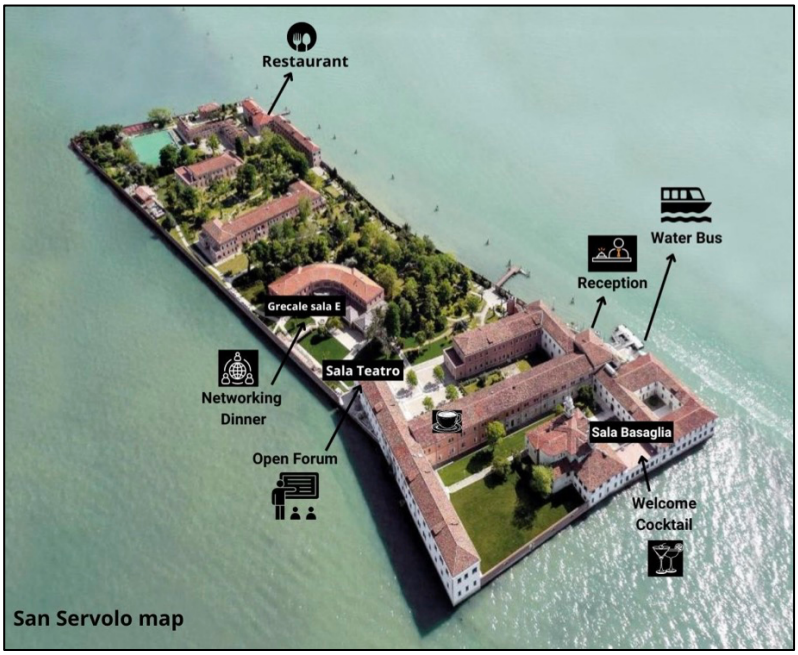
14:15 **CSEM monitoring of CO2 fluid pathways from a Carbon Capture and Storage (CCS) reservoir**
Naima Karolina Yilo - University of Southampton & WSP Australia

14:30 **New evidence points to an anticorrelation between large earthquakes and gas reservoirs: new prospects for the safety of CCS facilities?**
Gianluca Valensise - Istituto Nazionale di Geofisica e Vulcanologia (INGV)

14:45 **CO2 storage site monitoring using Cosmic Ray Muons**
Chris Steer - Geoptic

15:00 **Interactive panel session**

15:45 **Closing remarks**
Roman Berenblyum - CO2GeoNet - NORCE



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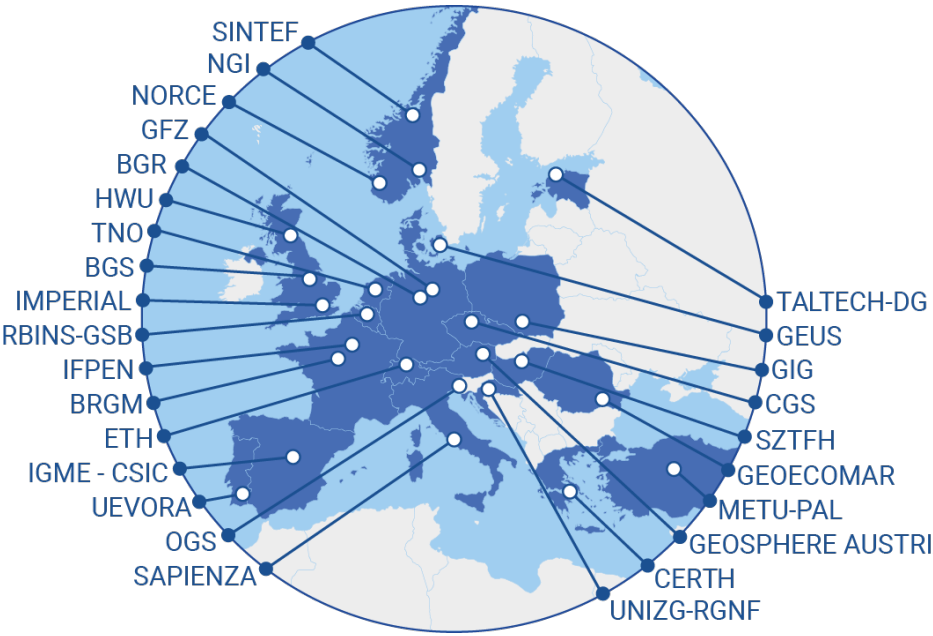
CO_2GeoNet -The European Network of Excellence on the Geological Storage of CO_2



CO_2GeoNet members

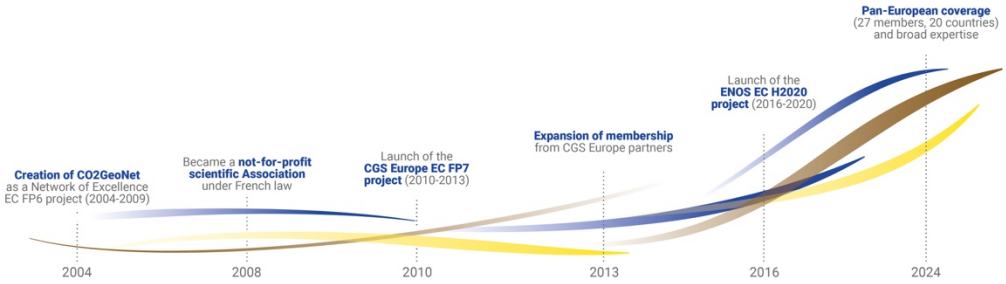
Austria: GeoSphere Austria - Federal Institute for Geology, Geophysics, Climatology and Meteorology; **Belgium**: RBINS-GSB - Royal Belgian Institute of Natural Sciences;
Croatia: UNIZG-RGNF - University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering; **Czech Republic**: CGS - Czech Geological Survey; **Denmark**: GEUS - Geological Survey of Denmark and Greenland; **Estonia**: TALTECH- DG Tallinn University of Technology, Department of Geology; **France**: BRGM - Bureau de Recherches Géologiques et Minières; IFPEN - IFP Energies nouvelles; **Germany**: BGR - Bundesanstaltfür Geowissenschaften und Rohstoffe; GFZ - Helmholtz Centre Potsdam / Deutsches GeoForschungsZentrum; **Greece**: CERTH - Centre for Research & Technology Hellas; **Hungary**: SZTFH - Supervisory Authority for Regulatory Affairs; **Italy**: OGS - National Institute of Oceanography and Applied Geophysics; SAPIENZA - University of Rome "La Sapienza"; **The Netherlands**: TNO - Netherlands Organisation for Applied Scientific Research; **Norway**: NGI - Norwegian Geotechnical Institute; NORCE - International Research Institute of Stavanger; SINTEF; **Poland**: GIG - Central Mining Institute;
Portugal: UEVORA – Universidade de Évora; **Romania**: GeoEcoMar - National Institute of Marine Geology and Geoecology; **Spain**: IGME-CSIC - Instituto Geológico y Minero de España, Consejo Superior de Investigaciones Científicas; **Switzerland**: ETH - Swiss Federal Institute of Technology Zurich; **Turkey**: METU-PAL - Middle East Technical University Petroleum Research Center;
UK: BGS - British Geological Survey; HWU - Heriot-Watt University; IMPERIAL - Imperial College London, Dept. of Earth Science and Eng.

CO2GeoNet
The European Network of Excellence on the Geological Storage of CO_2

About CO_2GeoNet

CO2GeoNet is the European scientific body on CO_2 geological storage. The Association currently comprises **27 research institutes** from **20 European countries**, and brings together over 300 researchers with the **multidisciplinary expertise** needed to address all aspects of CO_2 storage. With activities encompassing joint research, training, scientific advice, information and communication, CO_2GeoNet has a **valuable and independent** role to play in enabling the efficient and safe geological storage of CO_2.

CO_2GeoNet was created in 2004 as a Network of Excellence supported by the EC FP6 programme for 5 years. In 2008, CO_2GeoNet became a **non-profit Association** under French law. From 2013, the membership of CO_2GeoNet expanded thanks to the support of the now completed FP7 CGS Europe project. New Members continue to join CO_2GeoNet to further enhance the pan-European coverage and expertise of the Association.

More about CO2GeoNet at www.co2geonet.com

2004-2024
20-years anniversary of CO2GeoNet