



7th CO₂ GeoNet Open Forum

April 17-19, 2012

Venice, San Servolo Island, Italy

**CO₂GeoNet - a resource for Europe
providing scientific support for the
geological storage of CO₂**

**CGS Europe - a coordination action across
28 Countries**

**A forum - to make scientific research and
researchers available to stakeholders**



AGENDA

Welcome cocktail San Servolo Island - Room Basaglia - **Monday April 16 from 18:30**

Tuesday April 17

Session 1 - Welcome by CO₂GeoNet and CGS Europe

Chair: Sergio Persoglia, CO₂GeoNet-OGS

9.00 Welcome

Sergio Persoglia, CO₂GeoNet-OGS

9.05 Objectives of the 7th CO₂GeoNet Open Forum

Rob Arts, CO₂GeoNet-TNO

9.20 CO₂GeoNet and CGS Europe: what it is all about

Isabelle Czernichowski-Lauriol, CO₂GeoNet-BRGM

9.40 CO₂GeoNet strategy 2012-2014

Dominique Durand, CO₂GeoNet-IRIS

10.00 *Coffee break*

Session 2 - European initiatives towards research, innovation and demonstration

Chair: Isabelle Czernichowski-Lauriol, CO₂GeoNet-BRGM

10.30 European Commission initiatives on CCS: update on the implementation of the NER 300 programme and the Directive on the geological storage of CO₂

Martina Doppelhammer, EC DG Climate Action

10.50 ZEP recent actions related to CO₂ storage

Niels Peter Christensen, Vattenfall, Co-lead of ZEP Technology Task Force

11.10 ECCSEL - European Carbon dioxide Capture and Storage laboratory Infrastructure

Sverre Quale, NTNU-ECCSEL Project Director

11.25 EERA CCS Joint Programme

Andreas Ehinger, CO₂GeoNet-IFPEN, Coordinator of EERA-CCS

11.40 General discussion

Session 3 - Major research results and plans from European projects

Chairs: Niels Poulsen, CO₂GeoNet-GEUS, Hervé Quinquis, CO₂GeoNet-IFPEN
Franz May, CO₂GeoNet-BGR

3.1 Site Characterisation

12.00 MUSTANG - A Large-Scale Integrating Project for Developing Methodologies for Quantifying Saline Aquifers for Geological Storage of CO₂

Auli Niemi, Uppsala University

12.40 *Lunch*

3.1 Site Characterisation (continued)

- 14.00 SiteChar - site characterisation workflows for CO₂ storage in Europe**
Florence Delprat-Jannaud and Jonathan Pearce, CO₂GeoNet-IFPEN and CO₂GeoNet-BGS

3.2 Developing shared transport and storage infrastructure

- 14.40 COMET - Integrated infrastructure for CO₂ transport and storage in the west MEdiTerranean**
Dulce Boavida, LNEG
- 15.00 General discussion on site characterisation, transport and storage infrastructure**

15.20 Coffee break

3.3 Monitoring

- 15.50 CO₂ReMoVe - Monitoring and verification of CO₂ geological storage**
Rob Arts, CO₂GeoNet-TNO
- 16.30 CO₂FieldLab - CO₂ Field Laboratory for Monitoring & Safety Assessment**
Menno Dillen, CO₂GeoNet-SINTEF
- 16.50 General discussion on monitoring**

Session 4 - International research collaboration

Chair: Nick Riley, CO₂GeoNet-BGS

- 17.10 Round robin "GaMin'11": An international interlab comparison of geochemical batch experiments to study CO₂-fluid-rock interactions**
Christian Ostertag-Henning, CO₂GeoNet-BGR
- 17.30 The Sim-SEQ Initiative: A Model Comparison Study for Geologic CO₂ Storage**
Sumit Mukhopadhyay, LBNL
- 17.50 General discussion on possible cooperation**

18.00 End of day 1

20.00 Gala dinner

Wednesday April 18

- 09:00 Messages**
Sergio Persoglia, CO₂GeoNet-OGS

Session 5 - Promoting International collaboration on CO₂ storage

Chairs: Samuela Vercelli, CO₂GeoNet-URS, Gary Kirby, CO₂GeoNet-BGS

- 09.05 European Commission initiatives on CCS: update from the research perspective**
Vassilios Kougionas, EC DG Research

09:25 IEAGHG activities

Ameena Camps, IEAGHG

09:40 CSLF activities

Trygve Utheim Riis, CSLF technical group chair

09:55 GCCSI activities

Derek Taylor, GCCSI-European representative

10:10 General discussion on international collaboration and EU research

10:30 Coffee break

Session 6- Major research results and plans from European projects (continuation of session 3)

Chairs: Dominique Durand, CO₂GeoNet-IRIS, Rob Arts, CO₂GeoNet-TNO

6.1 Ecosystem impacts

11:00 RISCS - Research into Impacts and Safety in CO₂ Storage

Dave Jones, CO₂GeoNet-BGS

11:40 ECO2 - Sub-seabed CO₂ Storage: Impact on Marine Ecosystems

Klaus Wallman, Geomar

12:10 General discussion on impacts

12:30 Lunch

6.2 Site abandonment and long term fate of CO₂

14:00 CO₂CARE - CO₂ Site Closure Assessment REsearch

Mario Wipki, GFZ

14:40 ULTimateCO₂ - Understanding the Long-Term fate of geologically stored CO₂

Pascal Audigane, CO₂GeoNet-BRGM

14:55 PANACEA - Predicting and monitoring the long-term behaviour of CO₂ injected in deep geological formations

Jacob Bensabat, EWRE

15:10 General discussion on abandonment

15:30 Coffee Break

Session 7 - Focus on some research and demonstration activities worldwide

Chair: Sergio Persoglia, CO₂GeoNet-OGS

16:00 The Aquistore Project, Canada

Rob Arts (on behalf of Malcolm Wilson), CO₂GeoNet-TNO

16:20 Research activities in Japan

Koichi Takizawa, RITE

Session 8 - Panel discussion - CO₂GeoNet/CGS Europe's role as the European scientific body on CO₂ storage

Chair: Nick Riley, CO₂GeoNet-BGS,

Isabelle Czernichowski-Lauriol, CO₂GeoNet-BRGM

16:40 Highlights and viewpoints expressed by the Advisory Body members and the EC

Ameena Camps - IEAGHG, Niels Peter Christensen - ETP ZEP,

Lionel Perrette - DGEC, Derek Taylor - GCCSI, Manfred Treber - Germanwatch,

Vassilios Kougionas - EC DG Research

17:10 General discussion

18:00 End of day 2

Thursday April 19

3rd CGS EUROPE KNOWLEDGE-SHARING WORKSHOP: NATIONAL RESEARCH PROGRAMMES

Session 1 - National Funding and national CGS research programmes in CGS Europe countries

Chair: Roberto Martinez, S-IGME

9.00 Introduction

Alla Shogenova, TTU GI

9.05 Overview of the national research programmes and funding in CGS Europe countries

Roberto Martinez, S-IGME, Heike Rütters, CO₂GeoNet-BGR

9.25 National research on CO₂ storage in France

Isabelle Czernichowski-Lauriol, CCS programme manager, National Agency for Research (ANR)

9.40 GEOTECHNOLOGIEN programme, Germany

Ute Münch, Head of Coordination Office "GEOTECHNOLOGIEN", GFZ

9.55 CATO-2 programme, The Netherlands

Jan Brouwer, CATO-2 Programme Director, CO₂GeoNet-TNO

10.10 CO₂ storage activities in the CLIMIT programme, Norway

Trygve Utheim Riis, The Research Council of Norway

10.25 Funding of national and Nordic projects in Denmark (NORDICCS, AQUADK, EOR, Skagerrak project)

Karen Anthonsen & Niels Poulsen, CO₂GeoNet-GEUS

10.40 CCS Programme, Finland

Nicklas Nordbäck, GTK

10.55 Panel discussion: Priorities of national programmes and prospects for bilateral and regional collaboration

11.15 Coffee Break

Session 2a - Modelling in national research and demo/pilot projects

Chair: Kristin M. Flornes, CO₂GeoNet-IRIS

11.45 Overview of the national research on modelling in CGS Europe countries

Alla Shogenova, TTU GI

11.55 Modelling at the pilot site of Hontomín, Spain

Ciuden

12.15 Modelling in case studies, Poland

Bartosz Papiernik, AGH-UST

12.35 Lunch

Session 2b - Modelling in national research and demo/pilot projects

Chair: Brian McConnell, GSI

14.00 Numerical CO₂ Laboratory

Kristin M. Flornes, CO₂GeoNet-IRIS

14.20 CO₂-Vadose: 3D modelling of a CO₂ migration across natural carbonates

Philippe Delaplace, CO₂GeoNet-IFPEN

14.40 Modelling activities at the BIGCCS International CCS Research Centre in Norway

CO₂GeoNet-SINTEF

15.00 The Getica CCS Demo Project, Romania

Constantin Sava, GEOECOMAR

15.20 CO₂ storage at an industrial scale: a quick methodology to optimize the site location from basin scale simulations

Florence Delprat-Jannaud, CO₂GeoNet-IFPEN

15.40 Coffee Break

Session 3 – Other national research

Chair: Saulius Sliupa, NRC

16.10 COORAL - CO₂ purity for capture and storage (COORETEC research project)

Heike Rütters, CO₂GeoNet-BGR

16.30 SENTINELLE - Monitoring of geosphere, biosphere and atmosphere at the Lacq-Rousse pilot site, France

Philippe de Donato, INPL

16.50 The final results of the Slovakian CO₂ storage project: quantitative parameters of selected rocks suitable for CO₂ storage

Ľudovít Kucharič, Martin Radvanec, SGUDS

17.10 Joint GSI-BGS study of CO₂ storage potential in the Irish Sea

Brian McConnell, GSI

17.30 Discussion and conclusions

Alla Shogenova, TTU GI

18:00 End of day 3

Sponsors



San Servolo Island



CO₂ GeoNet

The European Network of Excellence on the Geological Storage of CO₂

CO₂GeoNet is the European scientific body on CO₂ geological storage. It currently comprises 13 public research institutes from 7 European countries, and brings together over 300 researchers with the multidisciplinary expertise needed to address all aspects of CO₂ storage. With activities encompassing joint research, training, scientific advice, information and communication, CO₂GeoNet has a valuable and independent role to play in enabling the efficient and safe geological storage of CO₂. CO₂GeoNet was created in 2004 as a Network of Excellence supported by the EC FP6 programme for 5 years. In 2008, the Network became a non-profit association under French law.

www.co2geonet.com

CO₂GeoNet members: BGR (Germany); BGS (UK); BRGM (France); GEUS (Denmark); HWU (UK); IFPEN (France); IMPERIAL (UK); IRIS (Norway); NIVA (Norway); OGS (Italy); SPR Sintef (Norway); TNO (Netherlands); URS (Italy)



CGS Europe

The Pan-European Coordination Action on the Geological Storage of CO₂

CGS Europe is a networking project that pools together the expertise of 34 key research institutes in the area of CO₂ geological storage across 28 countries (24 European Member States and 4 Associated Countries). Funded by the EC FP7 programme, it builds upon the networking and integration experience of CO₂GeoNet with the ultimate goal of providing an independent, scientific, pan-European platform and reference source where national, European and international experts, institutes and regulators can access the most up-to-date results of CO₂ storage-related studies, share experiences and good practices, discuss the implementation of regulations, identify research needs to face upcoming challenges, and build new projects.

www.cgseurope.net

CGS Europe partners (in addition to the 13 CO₂GeoNet members mentioned above): CzGS (Czech Republic); ELGI (Hungary); GBA (Austria); GEOECOMAR (Romania); GEO-INZ (Slovenia); G-IGME (Greece); GSI (Ireland); GTC (Lithuania); GTK (Finland); LEGMC (Latvia); LNEG (Portugal); METU-PAL (Turkey); PGI-NRI (Poland); RBINS-GSB (Belgium); SGU (Sweden); SGUDS (Slovakia); S-IGME (Spain); SU (Bulgaria); TTUGI (Estonia); UB (Serbia); UNIZG-RGNF