

CGS Europe

Pan-European coordination action on CO₂ Geological Storage

Vit Hladik Czech Geological Survey

Basic Facts



Project duration

3 years (November 2010 – October 2013)

Budget & financing

7th Framework Programme of the EU

Total eligible costs: 2.9 M€

EU contribution: 2.2 M€

Partnership

24 partners (including the CO2GeoNet Association), representing 34 research institutes from 28 countries (24 EU Member States and 4 Associated Countires)

Coordinator

BRGM – Isabelle Czernichowski Lauriol

Objective

- To build a credible, independent and representative pan-European scientific body of expertise on CO₂ geological storage that will:
- instigate a durable *networking of research capacity* on CO₂ storage in Europe
- Iiaise and coordinate its activities with other stakeholders, including the ZEP Technology Platform
- help reduce the existing gap between the 'forerunner' countries, and the 'follower' countries
- > contribute to the large-scale demonstration and industrial deployment of CCS
- support the implementation of the EU Directive on the geological storage of CO₂ and other regulatory regimes



Project Consortium – Goals for Creation:

- provide wide geographical coverage by including most European countries
 - > the consortium covers most of Europe and specifically includes those countries with the main potential for storage, although not exclusively so
- bring together key research institutes, leaders in CO₂ storage research and newcomers, actors on national and international level
 - all the participants of the consortium are research-oriented institutions and represent in their country an independent body of expertise on CO₂ geological storage

pool expertise from all over Europe

each institute brings into the consortium both a developed knowledge of the local geology, together with the national CCS context, and a specific expertise in certain aspects of CO₂ geological storage



Building on the CO₂GeoNet Adventure

 $CO_2GeoNet$ is the European scientific authority on CO_2 geological storage



Created as a FP6 Network of Excellence in 2004

Transformed into a non profit scientific Association under French law in 2008

Activities:

- Joint research
- Scientific advice
- Training

Information and communication

International recognition:

EUROPE

CSLF-endorsed network
 MoU with IEAGHG

As an <u>independent</u> and <u>multidisciplinary</u> scientific body, $CO_2GeoNet$ has the key role of building trust on CO_2 geological storage and supporting wide scale CCS implementation



Pooling European Scientific Expertise on CO₂ Geological Storage

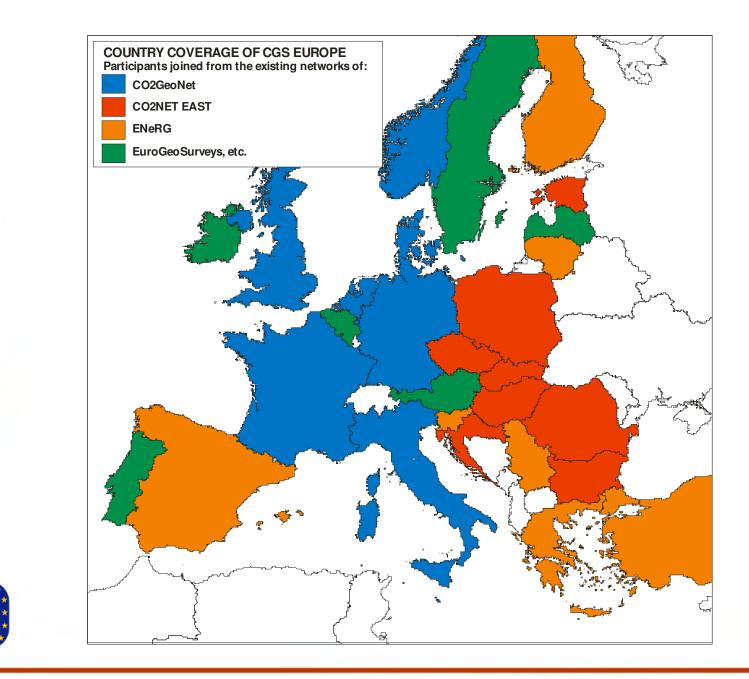
Started with CO₂GeoNet in 2004

CGS Europe will enlarge this pooling to the whole of Europe through collaboration with key geoscientific institutes from:

- CO2NET EAST Coordination Action on CCS (2006-2010), involving 7 R&D institutions representing 5 new EU Member States and 2 Associated Countries
- ENeRG European Network for Research in Geo-Energy, created in 1993, 60 members from 28 countries
- EuroGeoSurveys European Association of national geological surveys



The sound pre-existing networking experience of the selected institutes will speed up the process of building an efficient Pan-European body of expertise.



List of Participants

No	Name	Short name	Country
1	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	BRGM	France
2	CO2GEONET - RESEAU D'EXCELLENCE EUROPEEN SUR LE STOCKAGE GEOLOGIQUE DE CO2	CO2GeoNet	France
3	BUNDESANSTALT FUR GEOWISSENSCHAFTENUND ROHSTOFFE	BGR	Germany
4	GEOLOGISCHE BUNDESANSTALT	GBA	Austria
5	INSTITUT ROYAL DES SCIENCES NATURELLES DE BELGIQUE	RBINS-GSB	Belgium
6	SOFIISKI UNIVERSITET SVETI KLIMENT OHRIDSKI	SU	Bulgaria
7	CESKA GEOLOGICKA SLUZBA	CzGS	Czech Republic
8	TALLINNA TEHNIKAULIKOOL	TTUGI	Estonia
9	GEOLOGIAN TUTKIMUSKESKUS	GTK	Finland
10	INSTITUTO GEOLOGIKON KAI METALLEYTIKON EREYNON	G-IGME	Greece
11	MAGYAR ALLAMI EOTVOS LORAND GEOFIZIKAI INTEZET	ELGI	Hungary
12	Department of Communications, Energy and Natural resources	GSI	Ireland
13	LATVIJAS VIDES, GEOLOGIJAS UN METEOROLOGIJAS CENTRS SIA	LEGMC	Latvia
14	Gamtos tyrimų centras	GTC	Lithuania
15	PANSTWOWY INSTYTUT GEOLOGICZNY - PANSTWOWY INSTYTUT BADAWCZY	PGI-NRI	Poland
16	Laboratorio Nacional de Energia e Geologia I.P.	LNEG	Portugal
17	INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE PENTRU GEOLOGIE SI GEOECOLOGIE MARINA-GEOECOMAR	GEOECOMAR	Romania
18	STATNY GEOLOGICKY USTAV DIONYZA STURA	SGUDS	Slovakia
19	GEOINZENIRING DRUZBA ZA GEOLOSKI INZENIRING DOO	GEO-INZ	Slovenia
20	INSTITUTO GEOLÓGICO Y MINERO DE ESPAÑA	S-IGME	Spain
21	SVERIGES GEOLOGISKA UNDERSOKNING	SGU	Sweden
22	University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering	UNIZG-RGNF	Croatia
23	MIDDLE EAST TECHNICAL UNIVERSITY	METU-PAL	Turkey
24	FACULTY OF ECOLOGY AND ENVIRONMENTAL SCIENCES	UB	Serbia



CGS Europe Strategy

Focus on knowledge management:

Knowledge Repository: collect, structure, summarize knowledge for easy use

Knowledge Development: joint research through alignment of institutes' research programmes and external support, knowledge-sharing workshops, staffexchange programmes

Knowledge Dissemination: Annual Open Forum, CO₂ storage awareness-raising workshops, CO₂ storage Spring School, Brochures, central website with links to national websites

Spread knowledge evenly throughout EU Member States and Associated Countries, in as many EU national languages as possible;

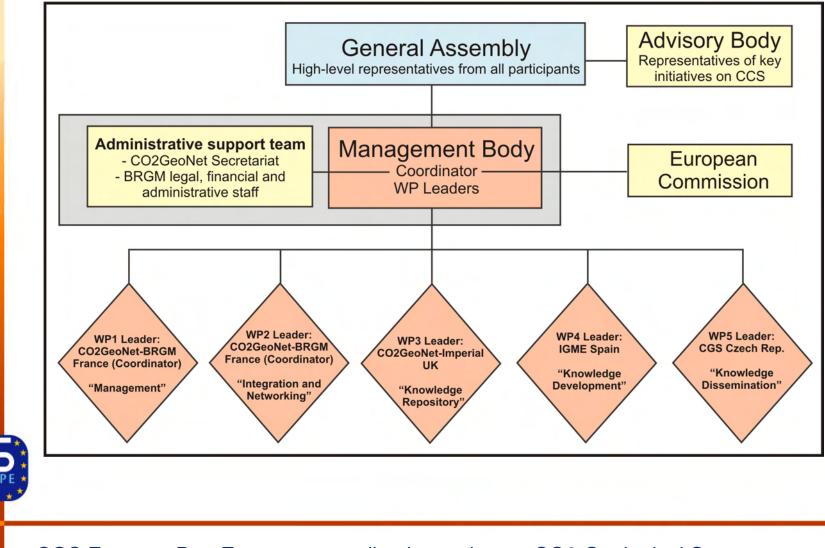
Remain an independent scientific voice, in which the public can trust;

Liaise with relevant initiatives at national, EU and international levels;

Prepare a framework that will enable the consortium to be independent from EC funding after the end of the project, for example by expanding the membership of the CO₂GeoNet Association.



Organisational Structure



WP2 – Integration and Networking

Leader: **BRGM**, France

Objectives:

- to encourage and support each participant of the consortium to work together through strategic actions guided by joint decisions, in order to build a pan-European scientific body of expertise on CO₂ geological storage
- to develop networking activities between CGS
 Europe and external bodies and establish initiatives that will last beyond the end of the EC contract
- to search for external funding opportunities in order to expand activities, prepare for self-financing after the end of the project period and maximize the impact of CGS Europe



WP3 – Knowledge Repository

Leader: CO2GeoNet-IMPERIAL, UK

The objective is to produce relevant, concise, complete and ultimately helpful CO_2 -storage-related information in a uniform and standardised way, aimed at all the stakeholders involved in R&D, small- and large-scale pilot and demonstration projects and regulatory work related to the implementation of the European Directive on the geological storage of CO_2 .

Main activities:

- Development of **knowledge repository database**
- Elaboration of key summary reports on selected topics:
 - Monitoring methods
 - Storage site selection methodologies and requirements
 - Regulatory regimes related to operational and safety risks

EUROPE

WP4 – Knowledge Development

Leader: IGME, Spain

Objectives:

- to encourage sharing of knowledge and good practices, e.g. by organising:
 - thematic workshops for geoscientists
 - thematic workshops for other stakeholders
- to coordinate research capacity and activities between the CGS Europe participants
- to favour the emergence of **new** targeted research projects



WP5 – Knowledge Dissemination

Leader: **Czech Geological Survey**, Czech Republic Objectives:

- to stimulate knowledge transfer and information dissemination
- to educate CCS stakeholders
- to raise general awareness of CCS as a climate change mitigation measure
- to facilitate the implementation of the European
 Industrial Initiative on CCS mentioned in the SET plan
- to support implementation of the EU Directive on the geological storage of carbon dioxide
- to reduce the arising gap between the 'forerunner' countries (those with higher CCS awareness, demo and/or pilot projects and extensive R&D activities) and the 'follower' countries



WP5 – Knowledge Dissemination

Main activities:

- Project website <u>www.cgseurope.net</u>
- Annual Open Forum Venice
- Knowledge dissemination workshops on CO₂ geological storage
- CCS awareness raising workshops
- Short course on CO₂ storage (Spring School)
- Presentations and publications, incl. translation of the educational brochure ,What does geological storage of CO2 really mean?' into national languages
- Interaction with media, incl. CCS awareness-raising in 'follower' countries, workshop with EUSJA, press releases, etc.



Project Website



http://www.cgseurope.net

Pan-European coordination action on CO2 Geological Storage

HOME NEWS & EVENTS

NEWS & EVENTS

CO2 Capture and Storage -

Response to Climate Change CGS Europe is delighted to announce its first Regional awareness-raising workshop entitled "CO2 C »

CO2GeoNet 6th Open Forum

This annual CO2GeoNet event will be organized in 2011 through CGS Europe. It will bring toget »

CGS Europe Kick-off meeting

The Kick-off meeting and 1st General Assembly of CGS Europe took place in Paris on 29-30 Nove »

ABOUT

CGS Europe - the "Pan-European coordination action on CO2 Geological Storage" CGS Europe, the "Pan-European coordination action on CO2 Geological Storage", is a project funded within the 7th Framework Programme of the European Community for research, technological development and demonstration activities. CGS Europe pools together the expertise of the key research institutes in the area of CO2 geological storage in European Member States and Associated Countries. It sets up coordination and integration mechanisms between the CO2GeoNet Association - the

HOT OFF THE PRESS



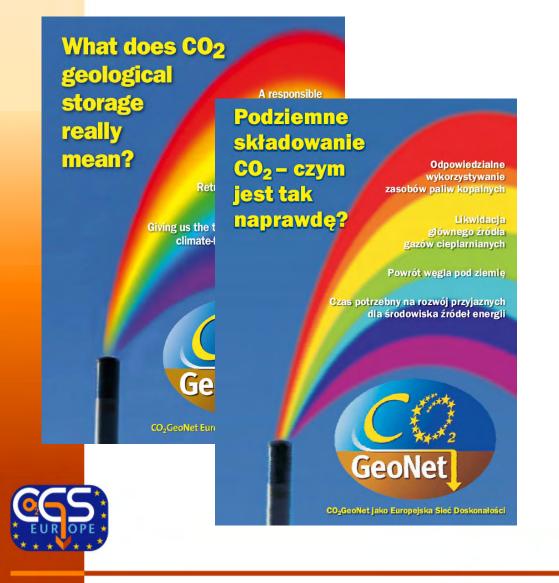


National CCS Information Websites



http://www.geology.cz/co2net-east http://www.pbg.com.pl/CO2_net_east.htm http://www.co2neteast.rgn.hr http://www.gi.ee/co2net-east www.elgi.hu/co2net_east/index.htm http://www.geology.sk/co2neteast/co2net-east.htm http://www.co2net.ro http://www.gi.ee/co2net-east/r http://nis-su.uni-sofia.bg/co2net-east

CO₂GeoNet Educational Brochures



Brings 20 pages of information about geological storage of carbon dioxide, incl. many pictures

Currently available in 11 languages

Further 15 languages to follow in 2011

CCS awareness-raising workshops ,CO2 capture and storage – response to climate change'

13-14 April 2011, Vilnius, Lithuania Spring 2012, Ankara, Turkey Spring 2013, Sofia, Bulgaria





Upcoming Events

CO2GeoNet 6th Open Forum

9-11 May 2011, Venice, San Servolo Island including

CGS Europe knowledge-sharing workshop

"Legal and regulatory issues for the implementation of the EU Directive on the geological storage of carbon dioxide"





Expected Impacts on Stakeholders

