



# Overview of CO<sub>2</sub>GeoNet activities for the past and the coming year

Samuela Vercelli University of Rome "La Sapienza" – C.E.R.I.

## **Building a European network**

- →Our activities are oriented to consolidate and develop a scientific community able to answer to the requests of knowledge on CO2 storage coming from all sectors of our society
- → Joining through joint research: providing an articulated body of knowledge on CO2 storage through multidisciplinary integration





New challenges coming up: defining the role of the Network in the new demo phase, answering to new advice, training and communication requests

## A new phase, new horizons: **CGS Europe**

- → Many new partners in our scientific adventure:
- → 2010 the launch of the FP7 project:
- "CGS Europe": an action started by the Network aimed at expanding transnational cooperation and networking





→ Not just continuation but creating a paneuropean network

#### Management of the Network

President Nick Riley, BGS

Secretary General Sergio Persoglia, OGS

Executive Committee:

July 2009 - June 2010

July 2010 - June 2011

Chair

Rob Arts, TNO

Samuela Vercelli, URS

1st Vice-Chair Samuela Vercelli, URS

**Dominique Durand**, NIVA

2nd Vice-Chair I sabelle Czernichowski, BRGM Rob Arts, TNO

Member

**Dominique Durand**, NIVA

IsabelleCzernichowski, BRGM

*Member* 

Anna Korre, Imperial

Anna Korre, Imperial

## CO<sub>2</sub>GeoNet activity areas

- →joint research
- → scientific advice
- training and capacity building



→information & communication



## New scenarios for joint research

→ Research alignment among the partners and coordination with EERA – European Energy Research Alliance, CO2GeoNet partners' contribution to the launch of the EERA CCS Joint Programme



→FP7 projects: focus on real test cases rather than basic research

### Research alignment

#### Areas of development:

- → Benthic chamber
- → Safety and risk
- → Intelligent injection strategies (2nd generation)
- → Low cost seismic alert system
- → Deep microbial system impact
- Impurities and rock-fluid interaction
- → Natural laboratories & sensing
- → Hydrate containment and storage
- → Inventory of CO2 emission baselines





### Joint research within FP7 projects

- CO2GeoNet direct involvement:
- →RISCS "Research into Impacts and Safety in CO2 Storage"
- CO2 GeoNet partners' involvement:
- →SiteChar "Characterisation of European CO2 Storage"
- → CO2CARE "CO2 Site Closure Assessment Research"
- →ECO2 "Sub-seabed CO2 Storage: Impact on Marine Ecosystems

## Research workshops

- → Co-organisation of the 1st IEAGHG Workshop on Natural Releases of CO2: Building Knowledge for CO2 Storage Environmental Impact Assessments, Maria-Laach, Germany, 2-4 November 2010
- →This research workshop was organised by IEAGHG, BGR and CO2GeoNet. It attracted about 100 scientists.





#### **IEA GHG studies**

- →Quantification techniques for CO2 leakage (coordinator: CO2GeoNet-Imperial)
- →Potential impacts on groundwater resources of CO2 storage (coordinator: CO2GeoNet-BRGM)



#### Scientific advice

- Creation of an organized system for providing advice to external stakeholders:
- →scientific input in relation to the design and implementation of CO2 storage projects and regulatory frameworks
- →expert analysis on scientific controversies concerning CO2 geological storage



## Training and capacity building

- → EAGE Student Lecture Tour 2010-2011: CO2GeoNet experts give lectures on CO2 Geological Storage at 45+ universities around Europe
- → BRGM-CO2GeoNet professional training courses in Orleans on "Geochemical modelling" 4.5 course (March and September 2010; October 2011) and "Introduction to CCS" 1.5 day course (November 2011)

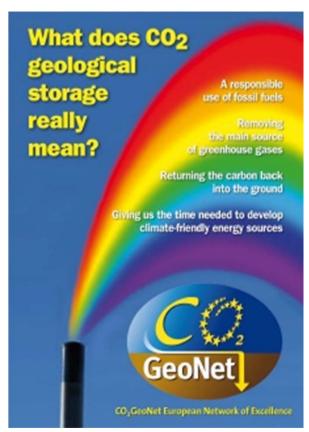




→ IEA GHG Summer school, Norway, August 2010; Illinois, USA, 2011

#### Information and communication

- CO2GeoNet brochure 'What does CO2 geological storage really mean?'
- In addition to the 8 existing languages (English, French, Danish, Dutch, Hungarian, Norwegian, Polish, Romanian) new translations have become available:
- German, Italian, Spanish
- Downloads: <u>www.co2geonet.com/brochure</u>
- New translations soon available to cover all European languages thanks to CGS Europe partners
  - Planning a new simple version for a more general public





#### Information and communication International events

- → Organisation 5th & 6th CO2GeNet Open Forum in Venice, May 2010, May 2011
- → Co-organisation of EAGE 2nd workshop on CCS in Berlin, March 2010
- → Co-organisation 2nd Romanian workshop "Promoting CCS in Romania", Bucharest March 2010
- Co-organisation "European Conference on CCS", Rotterdam, April 2010



