



Assessing European Capacity for Geological Storage of Carbon Dioxide

[www.geocapacity.eu](http://www.geocapacity.eu)

# EU GeoCapacity

## Assessing European Capacity for Geological Storage of Carbon Dioxide

Thomas Vangkilde-Pedersen, GEUS

GeoCapacity results and the future for geological storage of CO<sub>2</sub>  
EU GeoCapacity open final conference  
Copenhagen 21-22 October 2009



## EU GeoCapacity – *in headlines*

- Started in January 2006
- Ended in December 2008
- Co-financed by EU – FP6
- 26 partners from 20 countries
- Geological storage assessment in 25 European countries and pioneer work in China



## EU co-financed CO<sub>2</sub> storage capacity projects

- **Joule II** finalised 1993  
The joule II project: The underground disposal of carbon dioxide  
All Europe
- **GESTCO** finalised 2003  
Geological Storage of CO<sub>2</sub> from Combustion of Fossil Fuel  
Belgium, Denmark, France, Germany, Greece, Netherlands, Norway, UK
- **Castor** (WP 1.2) finalised 2006  
Bulgaria, Croatia, Czech Rep., Hungary, Poland, Romania, Slovakia, Slovenia
- **GeoCapacity** finalised 2008  
Assessing European Capacity for Geological Storage of Carbon Dioxide  
Bulgaria, Croatia, Czech Rep., Denmark, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Poland, Romania, Slovakia, Slovenia, Spain, UK



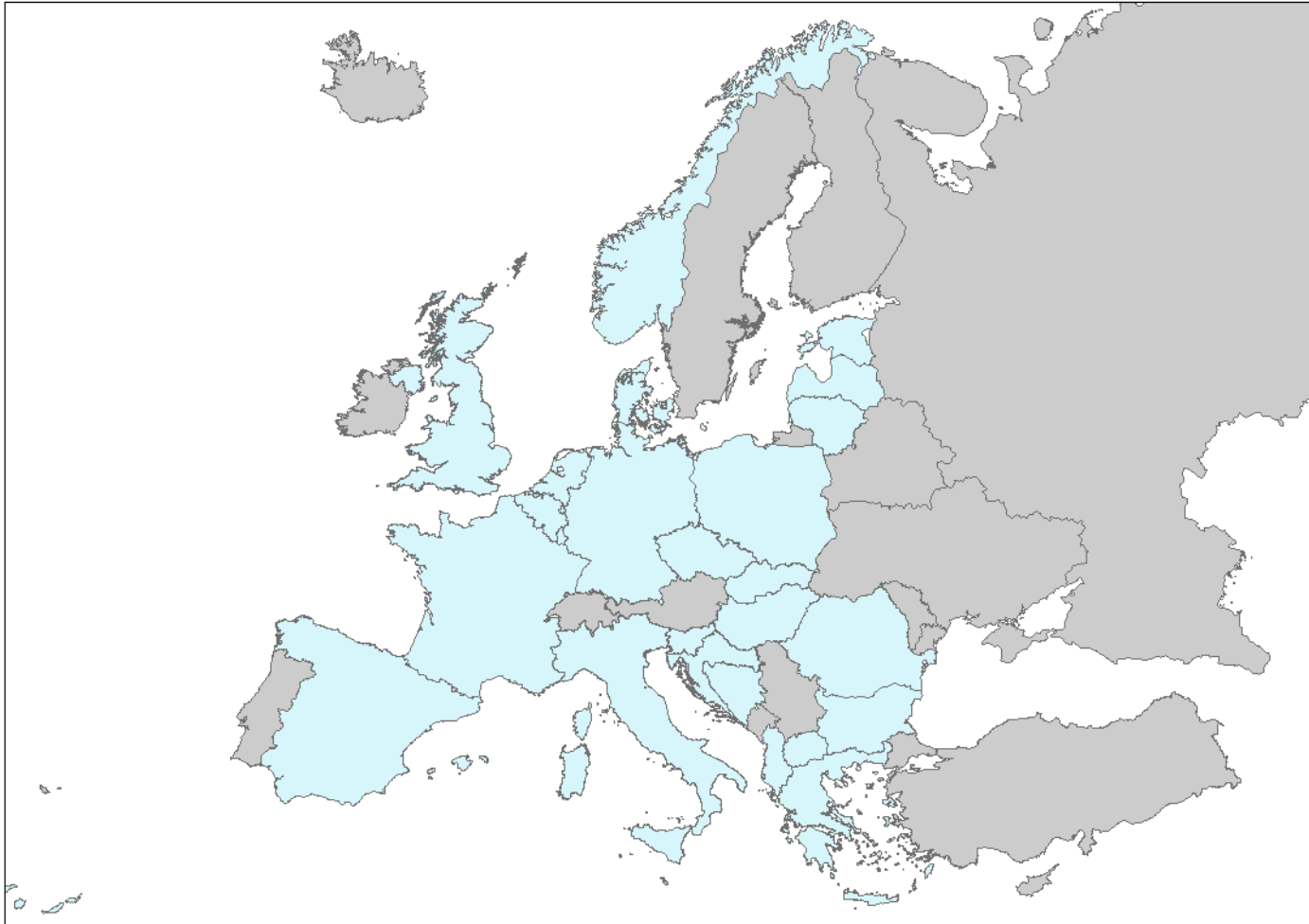
## The work in GeoCapacity comprised:

- Full assessment of countries not previously covered
- Update of GESTCO and CASTOR countries
- Inventory of major CO<sub>2</sub> emission point sources and infrastructure
- Assessment of regional and local potential for geological storage of CO<sub>2</sub> in:
  - deep saline aquifers
  - hydrocarbon fields (incl. EOR/EGR)
  - coal fields (incl. ECBM)
- Technical site selection criteria and methodology for ranking
- Contribution to guidelines for assessment of geological storage capacity
- Analysis of source – transport – sink scenarios and economical evaluations
- Further development of mapping and analysis methodologies (GIS/DSS)
- Collaboration with China and other CSLF countries e.g. India and Russia



## Assessing European Capacity for Geological Storage of Carbon Dioxide

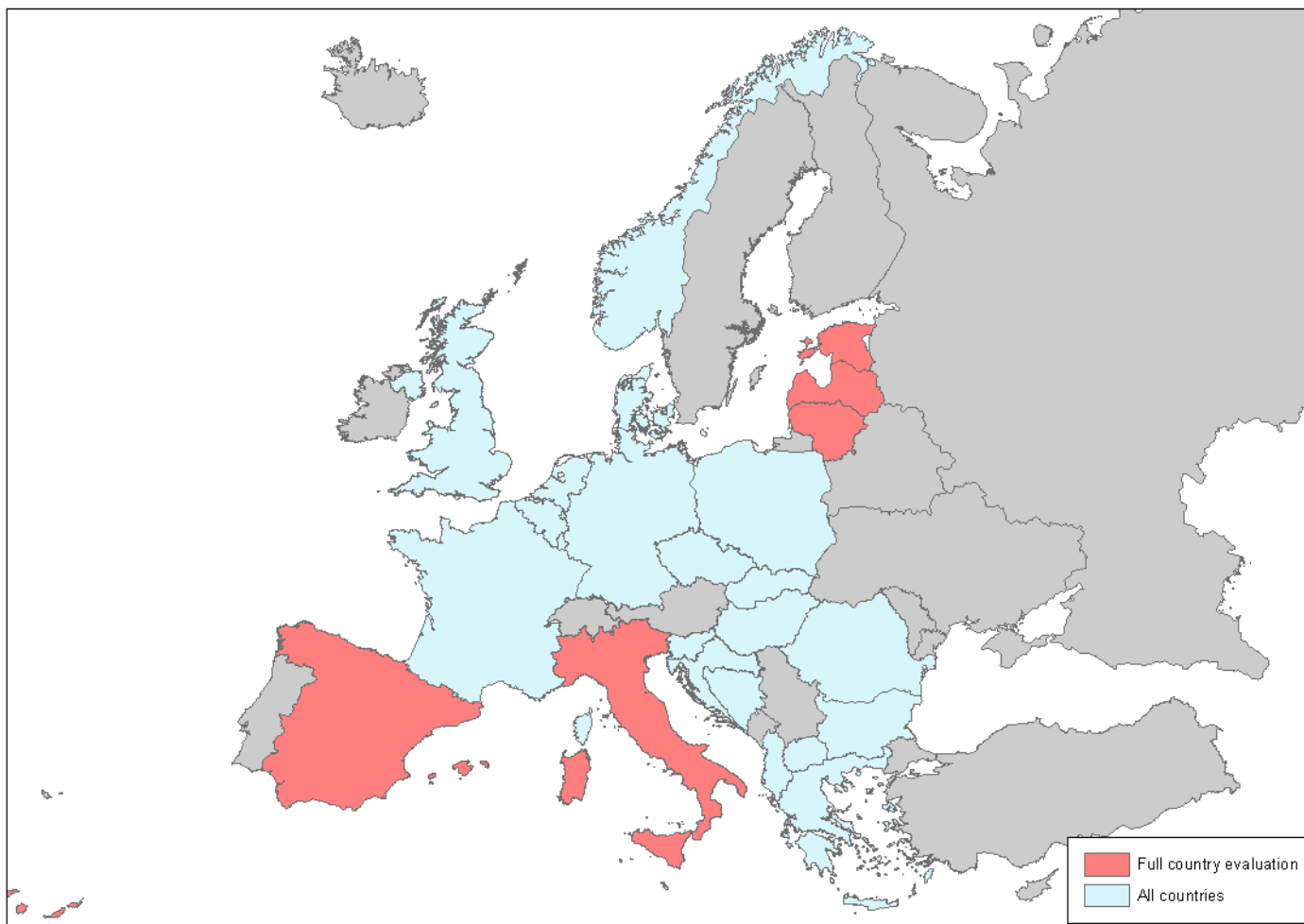
[www.geocapacity.eu](http://www.geocapacity.eu)





## Assessing European Capacity for Geological Storage of Carbon Dioxide

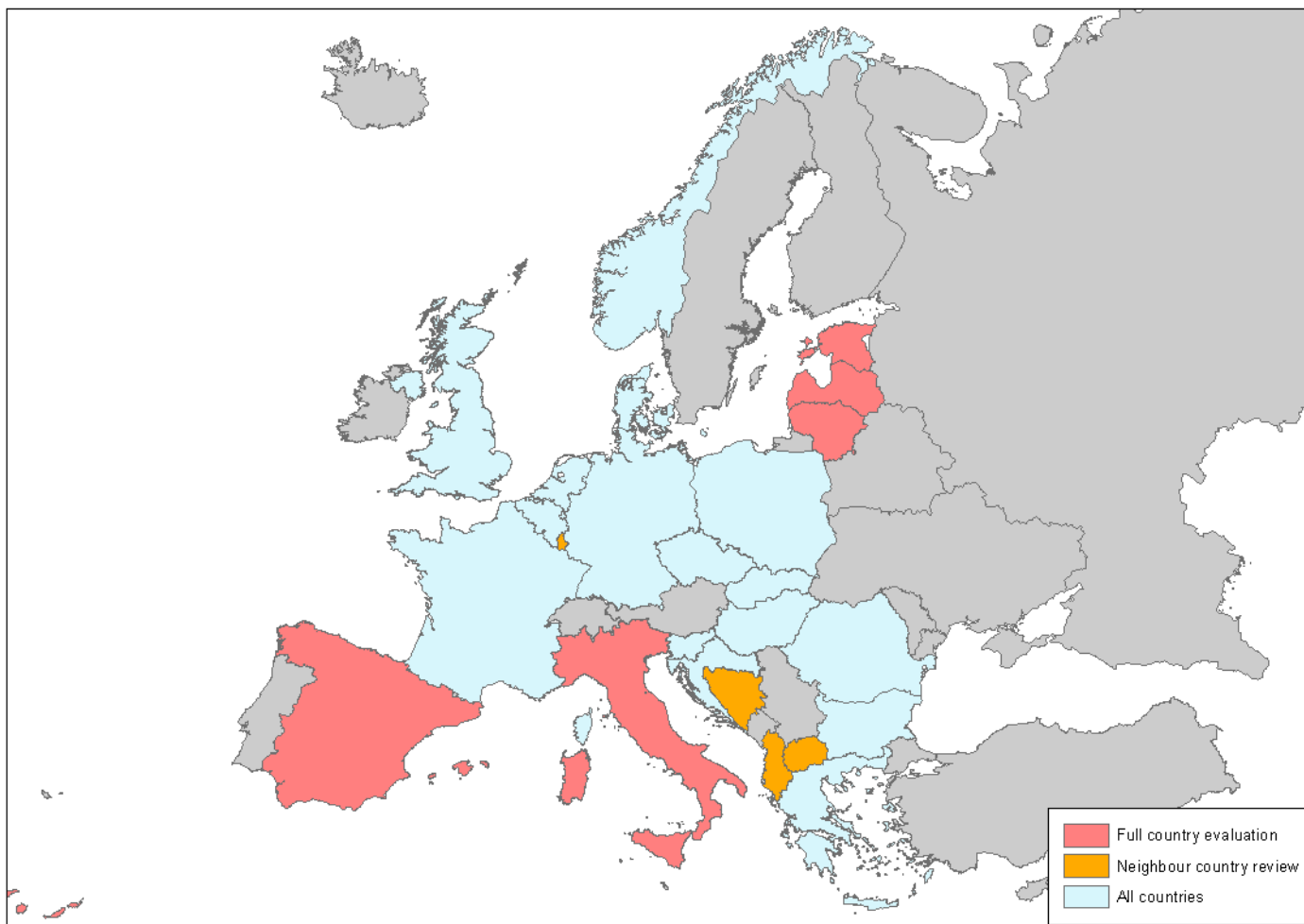
[www.geocapacity.eu](http://www.geocapacity.eu)





## Assessing European Capacity for Geological Storage of Carbon Dioxide

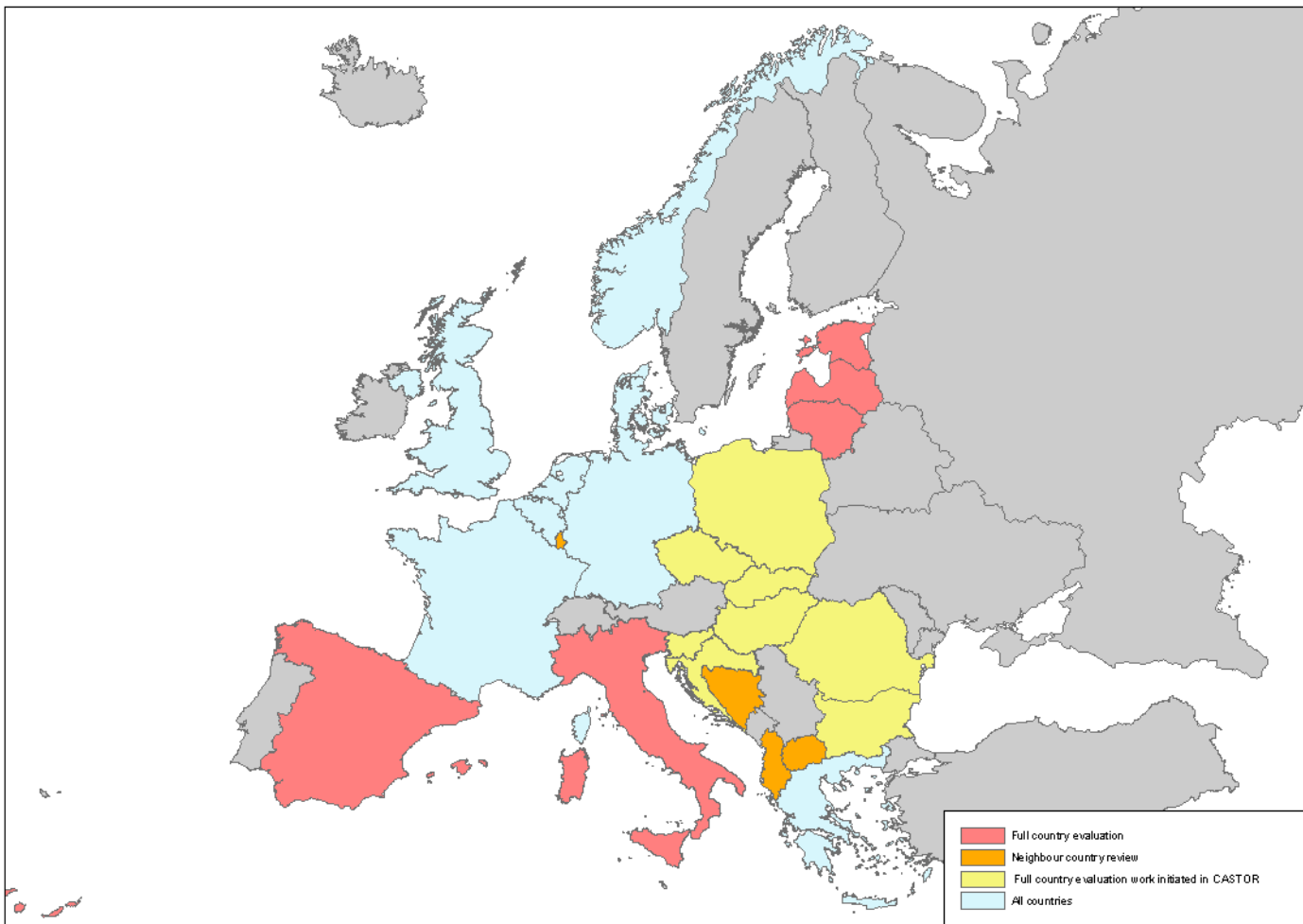
[www.geocapacity.eu](http://www.geocapacity.eu)





## Assessing European Capacity for Geological Storage of Carbon Dioxide

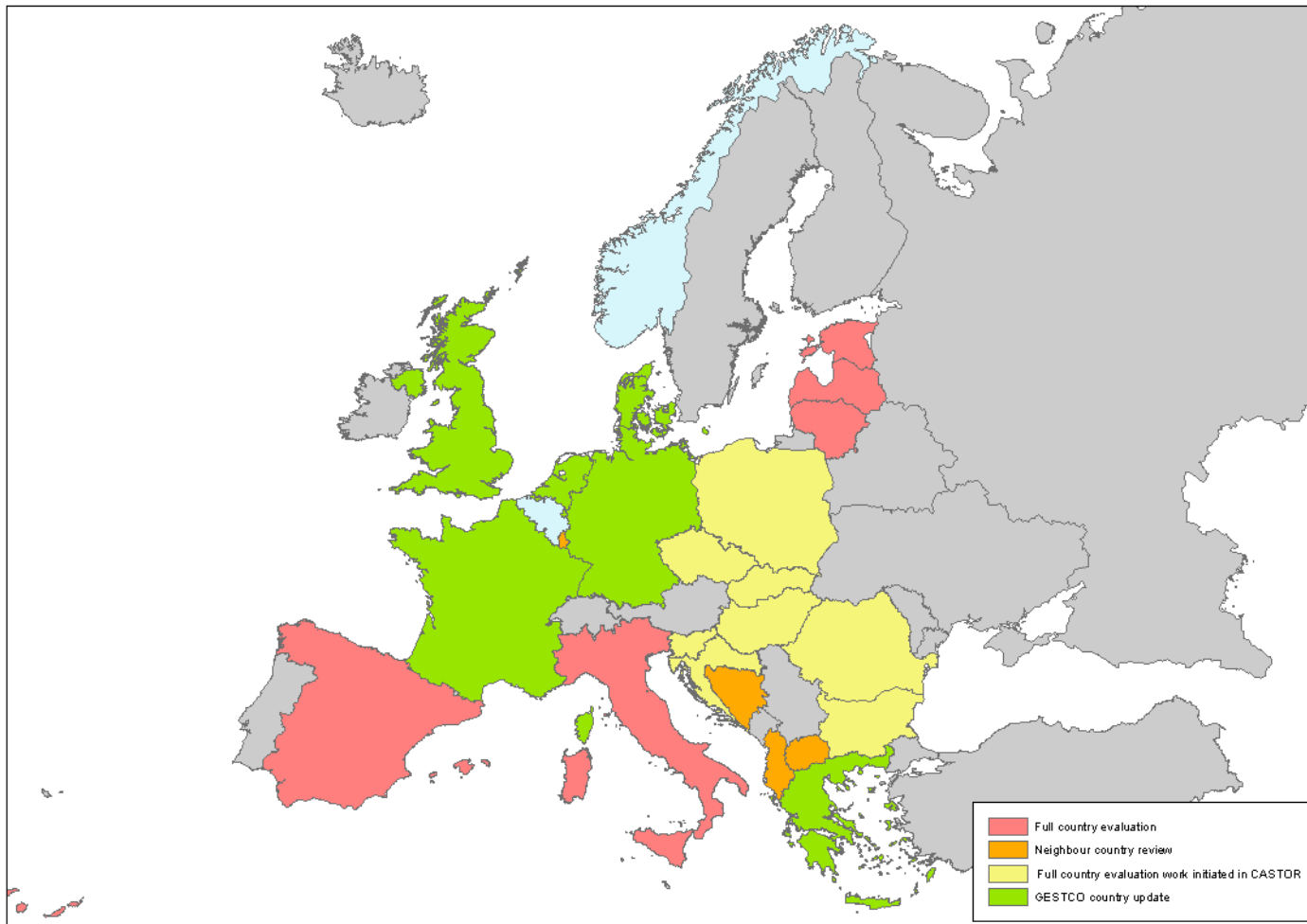
[www.geocapacity.eu](http://www.geocapacity.eu)





## Assessing European Capacity for Geological Storage of Carbon Dioxide

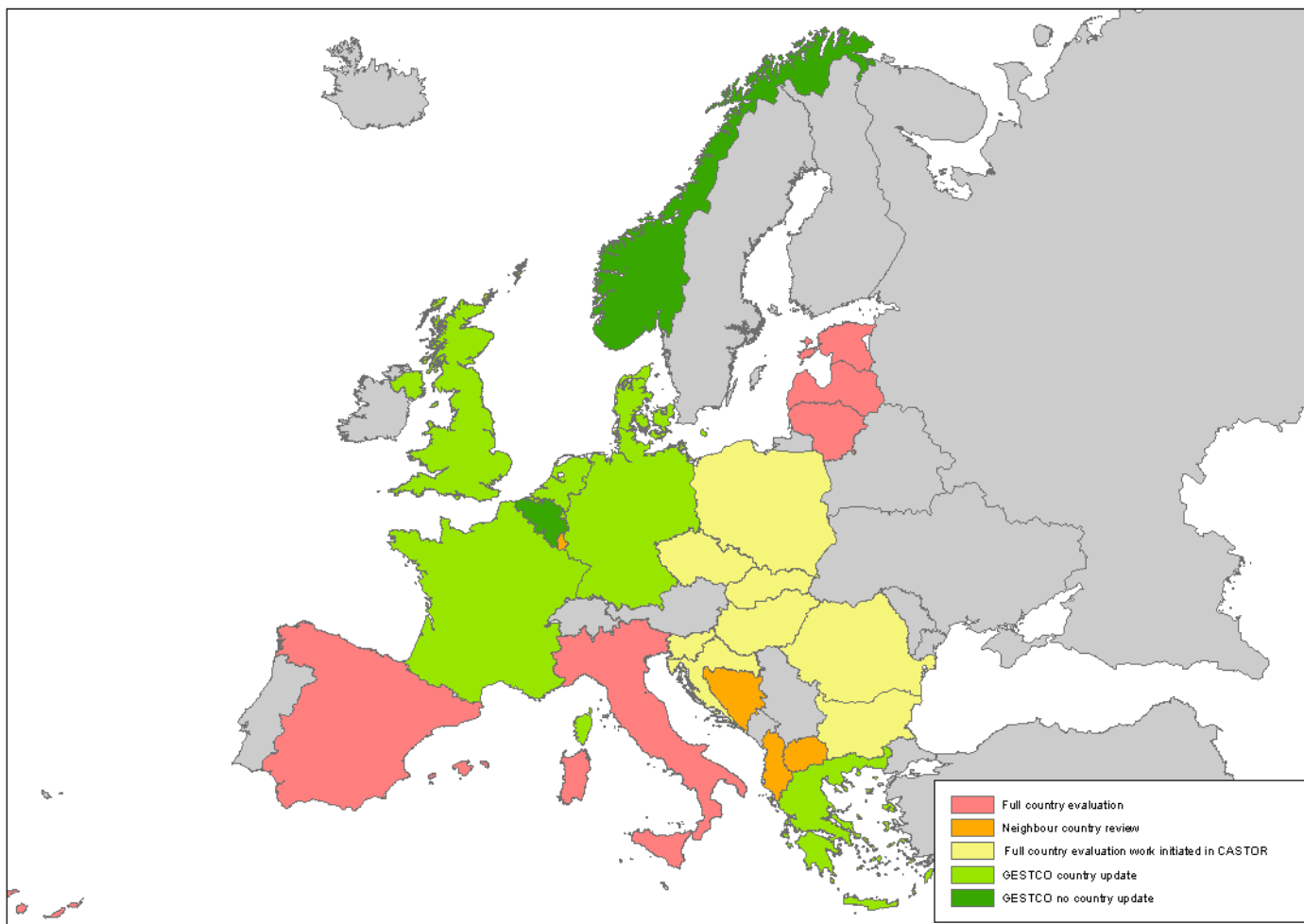
[www.geocapacity.eu](http://www.geocapacity.eu)





## Assessing European Capacity for Geological Storage of Carbon Dioxide

[www.geocapacity.eu](http://www.geocapacity.eu)





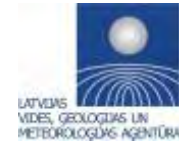
## 26 Project partners from 20 countries

- Geological Survey of Denmark and Greenland
- Sofia University "St. Kliment Ohridski"
- University of Zagreb - Faculty of Mining, Geology and Petroleum Engineering
- Czech Geological Survey
- Institute of Geology at Tallinn University of Technology
- Bureau de Recherches Géologiques et Minières
- IFP
- Bundesanstalt für Geowissenschaften und Rohstoffe
- Institute of Geology and Mineral Exploration
- Eötvös Loránd Geophysical Institute of Hungary
- Istituto Nazionale di Oceanografia e di Geofisica Sperimentale
- Latvian Environment, Geology & Meteorology Agency
- Institute of Geology & Geography
- Geological Survey of the Netherlands
- Ecofys
- Mineral and Energy Economy Research Institute - Polish Academy of Sciences
- Geophysical Exploration Company
- National Institute of Marine Geology and Geo-ecology
- Dionýz Štúr State Geological Institute
- GEOINŽENIRING d.o.o.
- Instituto Geológico y Minero de Espana
- British Geological Survey
- EniTecnologie (Industry Partner)
- Endesa Generación (Industry Partner)
- Vattenfall AB (Industry Partner)
- Tsinghua University



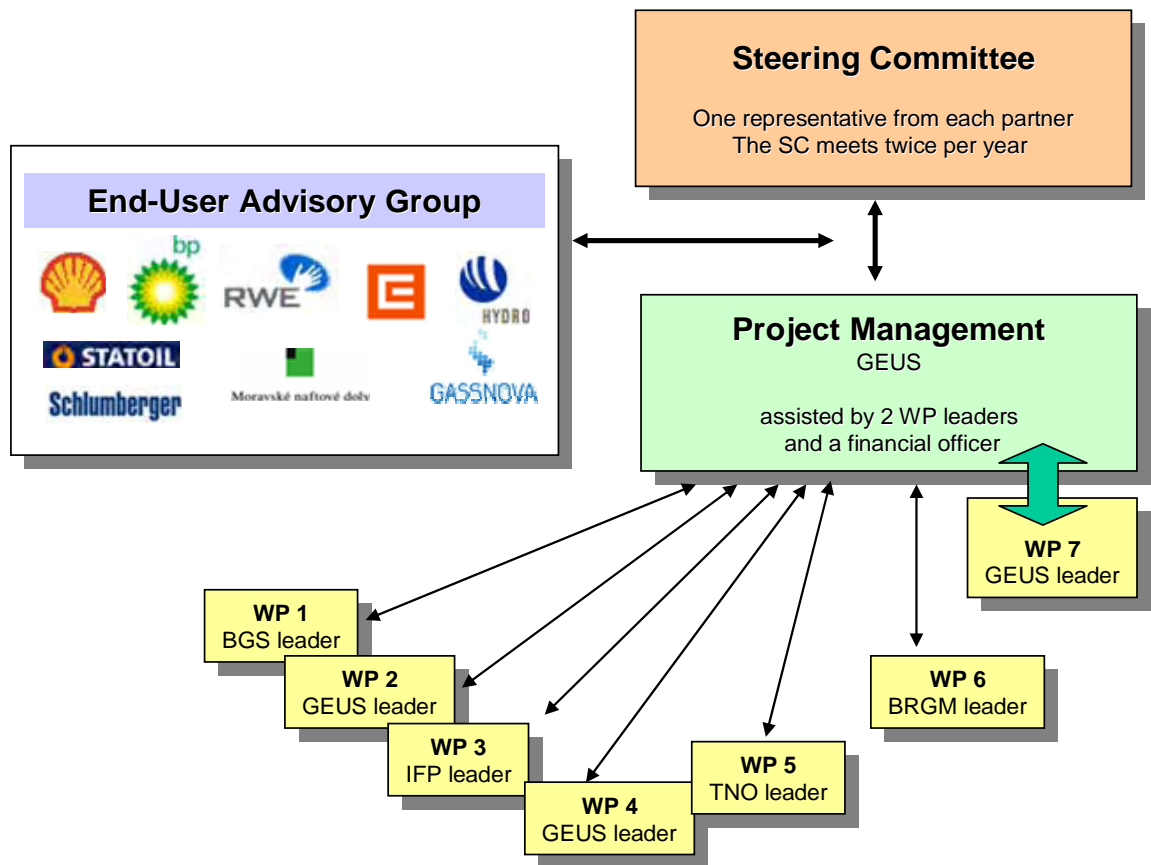
# Assessing European Capacity for Geological Storage of Carbon Dioxide

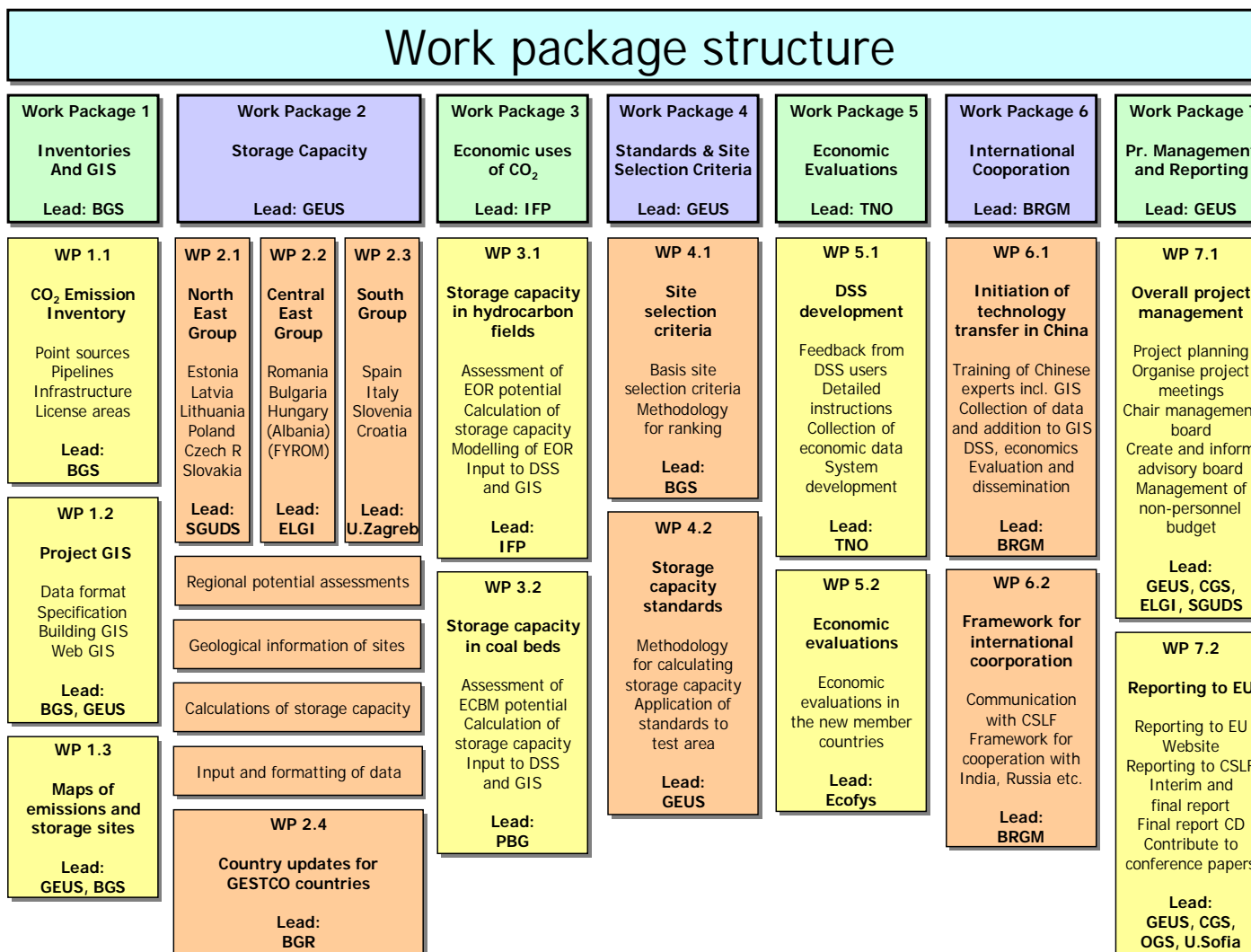
[www.geocapacity.eu](http://www.geocapacity.eu)





**GeoCapacity Project Organisational Structure**







## Where to start looking for storage capacity?

