



# CO<sub>2</sub> Capture and Storage – Response to Climate Change

## 2<sup>nd</sup> Regional Workshop for CE and EE Countries

3-4 March 2009, Bratislava, Slovakia



Organised by:  
State Geological Institute of Dionýz Štúr (SGUDS)  
Meeting venue: SGUDS, Dionýz Štúr Hall  
Mlynská dolina 1, 817 04 Bratislava 11, Slovakia

### What is CO<sub>2</sub> Capture and Storage /CCS/ and why is it important?

Climate change and the connected global warming count among the most frequently discussed topics of today. The 4th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) states that 'most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic concentrations of greenhouse gases'. Carbon dioxide (CO<sub>2</sub>), the most important greenhouse gas, is emitted into the atmosphere, among others, as a product of fossil fuels combustion. 80% of anthropogenic emissions of CO<sub>2</sub> come from big stationary point sources like power plants, steel mills, cement works or refineries.

By signing the Kyoto protocol, the European Union countries committed themselves to decrease their CO<sub>2</sub> emissions by 8% within the 2008-2012 period, compared with the base year (usually 1990). For the next stage of the Kyoto mechanism after 2012, further cuts can be expected, starting from the 20% value for 2020. The goal to considerably decrease CO<sub>2</sub> emissions can only be achieved using a combination of several more or less viable measures, among which CO<sub>2</sub> Capture and Storage /CCS/ plays an unsubstitutable role. The CCS technology grounds in capture of the carbon dioxide produced by fossil fuel combustion (for power production, cement, steel, etc.), its transport to a storage site and its safe storage in deep geological structures. At present, CCS technologies are high on the agenda both worldwide and in the European Union. Clear evidences of this statement are e.g. the EC Communication "Sustainable power generation from fossil fuels: aiming for near-zero emissions from coal after 2020", envisaging massive implementation of the CCS technology in Europe in near future, or the proposal for a European Directive on the geological storage of carbon dioxide from January 2008.

The "New Europe" will also have to face the challenge of reducing CO<sub>2</sub> emissions worldwide in near future. The aim of the planned workshop is to provide a basic overview of the CCS concept and of ongoing activities in this area to interested parties in new EU Member States and Candidate Countries and point out the progress achieved since the 1<sup>st</sup> workshop in Zagreb in 2007.

**Workshop website:** [www.geology.cz/co2net-east/workshop](http://www.geology.cz/co2net-east/workshop)

### Presentations of CO<sub>2</sub> capture & storage experts from leading European R&D institutions and industrial companies will help to initialize discussion on the following CCS themes (tentative):

<b>INTRODUCTION TO CCS CONCEPT</b>	Climate change and its causations Why to capture and store CO <sub>2</sub> ? CO <sub>2</sub> capture techniques & CO <sub>2</sub> storage principles
<b>EUROPAN POLICY AND DRIVING FORCES</b>	EU policy and regulations ZEP Technology Platform and the European Flagship Programme Climate change and CCS issues in Slovakia CO <sub>2</sub> NET – Carbon Dioxide Knowledge Transfer Network CO <sub>2</sub> NET EAST project – networking in new EU member states
<b>CAPTURE SESSION</b>	Post-combustion capture research Pre-combustion and oxy-fuel capture research Emerging technologies – chemical looping & chilled ammonia + contributions from new member states/candidate countries
<b>STORAGE SESSION</b>	Currently running CCS activities in the world 12 years of CO <sub>2</sub> storage experience of StatoilHydro EU GeoCapacity – mapping regional potential for geological storage of CO <sub>2</sub> ECCO – value chain for enhanced oil recovery with CO <sub>2</sub> CO <sub>2</sub> SINK – in situ storage laboratory in Germany + contributions from new member states/candidate countries
<b>RISK ASSESSMENT, SAFETY, PUBLIC ACCEPTANCE &amp; OTHER ISSUES</b>	Monitoring of deep storage objects Borehole integrity control Views of Non-Governmental Organisations on CCS

### Who should attend?

Stakeholders (not only) from Central and Eastern European countries – CO<sub>2</sub> producers, ministries and other public administration offices as well as researchers and representatives of NGOs.

**CO<sub>2</sub>NET EAST** <<http://co2neteast.enerqnet.com>> is a Co-ordination Action co-funded by the EC within its 6th Framework Programme for research and technological development. It is proposed as a mechanism to involve the new EU Member States and Associated Candidate Countries in the current European networking activities, especially in the existing **Carbon Dioxide Knowledge Transfer Network** (CO<sub>2</sub>NET; [www.co2net.com](http://www.co2net.com) ).

**Contact:** Vit Hladik, project co-ordinator, Czech Geological Survey; e-mail: [hladik@gfb.cz](mailto:hladik@gfb.cz)



Main Sponsors



Sponsors

