## Luncheon Address of Didier Houssin Managing Director, BRGM

## Business Meeting Sessions Meeting of Carbon Sequestration Leadership Forum Paris, France 28 March 2007

Ladies and Gentlemen

It's a pleasure for me to welcome you today for this final lunch hosted by BRGM. BRGM, the French Geological Survey, is a public institute in charge of the management of underground resources, natural hazards and land planning.

BRGM has for a long time played an important role in research projects on geological storage of CO<sub>2</sub> because we are convinced that CCS will likely be one of the major answers to the challenge of climate change and that research institutions have to help work out technological solutions in a very short period of time,

Since 1993, BRGM's teams have been partner of many European research projects and since 2002, we have also benefited from French public funding. Most of our projects are developed in close cooperation between public entities and industries. We have been particularly active in technical and scientific work in two domains: firstly, to boost storage capacity assessment and secondly, to propose safety criteria and environmental impact evaluations

The core of our activities is to study the feasibility of CO<sub>2</sub> storage in France but also to participate to the worldwide development of CCS.

Our first objective has been to establish a broad estimate of the storage capacity in France which belongs to our core business as a geological survey. Storage sites are widely distributed in the three main sedimentary basins of the French territory, so that aquifers account for the major part of the CO<sub>2</sub> storage capacity in this country. Depleted hydrocarbon reservoirs account for a moderate extent and storage on coal seams is poorly known.

Today, several medium scale CCS pilot plants are ready to start in France. BRGM will participate to the TOTAL project near Lacq, and is actively working, with many industrial and public partners, in the preparation of a pilot project of Carbon Capture from an oxy-fuel boiler and CO<sub>2</sub> Storage in a deep aquifer of the Paris Basin.

Our second priority is to develop predictive modelling tools to describe the behaviour and the long term evolution of CO<sub>2</sub> in the geological reservoirs. It comprises coupled models for thermal, hydraulic and chemical interactions within the reservoirs and the

geomechanical consequences of such interactions. BRGM scientists are the authors of several international scientific publications in this field.

The third research activity deals with methodological development in monitoring and verification of the storage. Passive micro seismic monitoring and non seismic methods are considered together with chemical methods.

The last main topic consists in risk assessment studies and methodologies for establishing criteria for safe operation of storage sites.

In the opening session on Monday, public acceptance was extensively presented as one of the important barriers to be overcome to accelerate CCS deployment.

In that context, it is particularly urgent to move forward in establishing criteria to authorize the storage sites and to identify risk of leakage, evaluate acceptable escape rates, and work out scenarios to handle potential failures and assess the possible impacts. We have now to bring forward adequate scientific input in the next 3 or 4 years to support the 1000 years objective proposed by the IPCC report on CCS.

Most of our research activities are realised in cooperation with other French public research entities and many links have been established with partners in Europe and worldwide.

For example, BRGM is involved in the works of the European Zero Emission Platform for the Fossil Fuel Power Plant by participating to different taskforces. We are also actively engaged in the management of the European Network of Excellence on CO<sub>2</sub> geological storage – CO<sub>2</sub>GeoNet, whose ambition is to be the European scientific body on CO<sub>2</sub> geological storage.

The present meeting has shown once again how important is the role of CSLF to enhance international cooperation and contribute to meet all the challenges we face to make CCS an operational tool to mitigate climate change in a timely manner.

I thank your for your attention and wish you a very good lunch.