

EUROGEOSOURCE: A MULTILINGUAL WEB GIS SYSTEM ON ENERGY AND MINERALS HELPS INSPIRE

Stephan H.L.L. Gruijters,
TNO Geological Survey of the Netherlands, Utrecht, the Netherlands

A central problem Europe is facing today is to secure its energy and non-energetic minerals supply. Since disruptions and shortages are immediately felt by the citizens and can have large impact on economy as well as repercussions on foreign relations, energy security is today very high in the political agendas across Europe and at the Commission. EU authorities currently compile their long-term policies regarding the need for oil, gas and minerals, including estimates of the required import, from national reports contributed by the member countries. These reports contain only generalized information regarding reserves and production forecasts for a country as a whole. The high level of generalization of the hydrocarbon reserve information available at EU level and the lack of easily accessible, reliable and detailed data that could support decision making do not allow a fast response to crisis situations and significantly reduce the accuracy of the long-term planning of the geo-energy supply of Europe.

In three years (April 2010 – April 2013) the EuroGeoSource project (www.eurogeosource.eu) will develop a multilingual web GIS system that will allow users to identify access, use and reuse aggregated geographical information on geo energy and mineral resources, provided by geological surveys from at least ten countries in Europe. The system will enable OGC-compliant services for the registration of data sets from different countries, the visualization and overlay of the information layers obtained from distributed sources, spatial analysis, and so on. The implemented solutions will provide easy and fast access to a large and economically valuable data set for all relevant user groups in the Community.

One important task within the project is to build a collaborative framework between the major stakeholders in the energy and mineral resources sectors of the EU economy, including the corresponding directorates of EC, national ministries, the key market players, such as production and transportation companies, also outside the EU. The framework will contribute to common understanding of the European and global goals and challenges in security of geo-energy and minerals supply in the conditions of the liberalized market and political instability. The framework will be built by organizing three public workshops during the execution of the project.

The data that is going to be served at the EuroGeoSource web system will be compatible with INSPIRE. That is why the thematic working groups ‘geology and minerals’ and ‘energy’ share our experts on data management. Furthermore the project is registered as SDIC and will act as a pilot for the development of minerals and energy data within INSPIRE. We have 11 Geological Surveys present in the consortium and encourage other surveys to join the project as a data provider to maximize the coverage of Europe.

Our inventory on user needs shows that interoperability is high on the users agenda. The combination of data on minerals and energy with other spatial information (e.g.

geology, ecology, land use, basis geography) is highly appreciated. Furthermore, the users want the portal to include a map viewer with consultation of the data through keywords and geographical location and a summary of query results in tables and graphs. Finally, the portal should facilitate downloading the data.

It became obvious that the content and structure of data available in the participating countries differ substantially. Furthermore the data is located in several different institutions and at different levels of processing. None of the countries possesses a system that could be regarded as an example for setting up a harmonised database, not even in at meta data level.

Using the inventory of available data, we came up with a first draft of key economic attributes that will be served at the portal. These data include general information (e.g. location, start and end of production), economic information (e.g. in situ reserves and (UNFC-) classification) and geological information (e.g. host rock). The attributes are compared and synchronised with the first draft of the INSPIRE data specification for minerals and energy.

The first international public workshop was held in Budapest in March 2011. At this workshop the inventory of user needs, an overview of data available at the surveys involved, the first draft of our data model, and a sneak preview of the web portal was discussed.