



The implications of user requirements for the functionality and content of a future EGDI

Mikael Pedersen and Jørgen Tulstrup

Geological Survey of Denmark and Greenland, Geological Data Centre, Copenhagen, Denmark (mp@geus.dk)

The FP7 co-funded EGDI-Scope project is conducting analyses, which forms the basis for the development of an implementation plan for a future European Geological Data Infrastructure (EGDI) the aim of which will be to serve pan-European geological information from the European geological survey organisations.

An important aspect of the project has been to consult stakeholders in order to deduce requirements, which is a fundamental prerequisite for making recommendations on the content and technical design of the system. It is indisputable that EGDI will have to build on international standards such as OGC and CGI and take into account legislative requirements from e.g. the INSPIRE directive. This will support the tasks of data providers and facilitate integration with other e-Infrastructures, but will not in itself lever the end user experiences. In order to make the future EGDI a successful online contributor of geological information, EGDI-Scope has therefore been looking very concretely into the needs and expectations of various user groups

Most people have clear expectations anno 2014. They want to be able to search the web for information, and once found, they expect fast-performing, intuitive web applications with buttons to click, maps to navigate and reliable content to fulfil their immediate needs. In order for the EGDI to handle such requirements, a number of use cases for various thematic areas have been assessed.

The use cases reveal (for example) that information about the geological composition of the ground is critical for the assessment of things like ecosystems or ground water quality. But where ecosystem assessment relies on the composition of the surface layers, groundwater geochemistry rely on the lithology of subsurface layers. For both scenarios, harmonised, pan-European geological maps are very important, but the harmonisation should not only relate to lithological classes, but also to the depth representation.

The use cases also make clear that various user groups have different needs and expectation, which eventually affects the system design. For example, scientists or geological advisors expect data on mineral resources to be comprehensive, harmonised, correct and searchable and want facilities to analyse, assess and download these data in various formats, whereas public users (as well as decision-makers) want synthesised and easy-to-find answers to questions such as “where are the largest gold deposits in Europe?”

There are obvious discrepancies between the user needs and what is realistically achievable. It is therefore an important task of the EGDI-Scope project to make recommendations regarding what use cases should be fulfilled. It cannot be disputed that harmonisation of data on a pan-European scale is essential for all use cases, and that the user interface(s) should present the data not only as nice backdrop images, but as information which has a geological (and human understandable) meaning that can help answer common questions. Today, no such thing exists for Europe and, hence, it is essential for the EGDI with the support of EuroGeoSurveys and all its members to fulfil this gap.