Geophysical Research Abstracts,
Vol. 11, EGU2009-10982-2, 2009
EGU General Assembly 2009

OneGeology-Europe and the new EC Directive INSPIRE - A matter of semantic subtlety?

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The EC INSPIRE Directive which came into force in May 2007 set out how the Member States of the European Union would describe, discover and provide access to spatial environmental data in a harmonised way. Amongst the data sets specified in INSPIRE is geology. A fundamental question is just what is meant by 'geology'? The question must be answered, and in some detail, if the intentions of the INSPIRE Directive to provide consistency of access are to be realised

The Directive itself provides very little constraint on this definition. In it geology is described as "Geology characterised according to composition and structure. Includes bedrock, aquifers and geomorphology". The challenge for the EC and its Member States – more specifically for the geological survey community – is to convert this single line into a precise and practical specification that will deliver the outcomes intended by INSPIRE. The geological survey community is attempting to develop this specification through two complementary routes. Theme Working Groups – a generic procedure adopted by the EC that will start in May 2009 - and a new EC eContentplus project, OneGeology-Europe.

Within OneGeology-Europe is a Work Package whose task is to deliver a semantic specification of "geology" at 1:1 million scale. While the initial reaction of some would be to question whether defining geology at this scale poses any significant challenges the reality is somewhat different. Fundamental questionsare: Should we specify the geology at the surface or restrict it to "bedrock" geology? Do we attempt to define the rocks chronostratigraphically, or by their lithology, perhaps even by the more regional lithostratigraphy or by genetic aspect? To what extent do we include tectonic features? How to cope with th ecomplexity of metamorphic rocks etc? These are only some of the high level questions – the devil, however, comes in the detail. How should we deal with the classification of the Pre-Cambrian rocks? What approach should we adopt to hypabyssal rocks? There are many more to approach and of course already existing vocabulararies, definitions and classifications need to be taken into account.

Compounding these questions is the fact that in the absence of accepted international standards, almost every national geological survey has adopted different standards; standards which they are reluctant to concede.

This presentation will outline the issues and challenges facing the geological community to define the geological classification of the OneGeology-Europe project while considering the future requirements of the EC INSPIRE Directive and provides an update on the progress in meeting those challenges.