



Consistency as a Challenge: Building the first geological GIS of Europe

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The GIS and map project of the 1:5 Million International Geological Map of Europe and Adjacent Areas (IGME 5000) is being managed and implemented by the Federal Institute for Geosciences and Natural Resources (BGR) under the aegis of the CGMW (Commission of the Geological Map of the World). The aims were to develop a Geographic Information System (GIS) containing up-to-date harmonised lithological and geochronological data of Europe, and to print a geological map of the pre-Quaternary on-shore and, for the first time at this scale, off-shore areas of Europe. As a Geological GIS of the whole of Europe, the IGME 5000 displays the geology of all European countries and thus needed to adopt a system that could be applicable and consistent across the whole of Europe. 48 different national geological survey organisations across Europe are actively involved and needed, from the beginning, to be supplied with common standards and guidelines. With the exception of the IUGS standards which mainly tackle geological terms and the time scale, i.e. the IUGS International Stratigraphic Chart, 2004 and the Streckeisen classifications of igneous rocks (Streckeisen 1976, 1978), it became apparent that certified and widely used international digital geological standards were indeed not available. At the moment, however, this situation changes and many international initiatives are evolving. The modelling, design and creation of the IGME 5000 GIS and database followed a structured but pragmatic process, which included novel developments but also the adaptation of existing standards and conventions. This presentation will describe the project's approach to these developments and adaptations used in order to build a collaborative and consistent pan-European GIS.