



## **Data without Frontiers - the International Quaternary Map of Europe (IQUAME 2500)**

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The Federal German Geological Survey (Bundesanstalt für Geowissenschaften und Rohstoffe, BGR) is leading the review of the International Quaternary Map of Europe (IQUAME 2500) and its transformation into a geographical information system (GIS) under the umbrella of the CGMW and INQUA. It is a long-standing policy of BGR to lead international cooperation of European geological survey mapping projects. These particularly include projects under the umbrella of organisations including CGMW, UNESCO, INQUA, EGU and IUGS.

The aim of IQUAME 2500 is to build a geological information system (GIS) of Europe's Quaternary geology where relevant information can be retrieved, combined and applied across international boundaries. Cross-border mapping poses specific challenges, in particular data harmonisation, for the presentation of regional geology. Overcoming these obstacles demands international cooperation with national geological survey organisations.

Based on the previous BGR & UNESCO co-produced International Quaternary Map of Europe (at a 1 : 2,5 million scale; completed in 1995), revision was begun by BGR in 2011 to review the information available from an international group of experts from European geological survey organisations. This group is supported by an international academic Advisory Board.

The work requires re-evaluation and digitization of the 14 paper sheets. For this purpose BGR developed a pragmatic procedure to classify, deliver and combine the reviewed Quaternary data in a harmonized and uniform manner.

The project is applying the vocabularies and data model of the EC Directive INSPIRE Directive and is creating additional vocabularies and definitions for necessary features such as geomorphology (with the EMODnet project) and glaciogenic elements. An academic scientific advisory board is overseeing the process. Subjects of the map include: geological boundaries and classifications of Quaternary rocks, extension and boundaries of permafrost, last glacial maximum, genetic descriptions of the rocks, faults, key localities (geologically and palaeontologically significant sites, anthropological sites, impact craters, etc.) and more detailed off-shore geology (in cooperation with the EMODnet project).

Ultimately, the IQUAME project will summarise the current status quo of European Quaternary geological research in a digitally available GIS synthesis and introduce practically applicable new vocabularies to describe the results and share those with the science community.