Geophysical Research Abstracts, Vol. 7, 08529, 2005
SRef-ID: 1607-7962/gra/EGU05-A-08529

Topo-Europe - 4D topography evolution in Europe: Uplift, subsidence and sea level rise

S. Cloetingh (1) and the Topo-Europe team

(1) Netherlands Research Centre for Integrated Solid Earth Science, Vrije Universiteit Amsterdam, The Netherlands, E-mail: sierd.cloetingh@falw.vu.nl

This contribution provides an overview on the rationale, concept and ongoing activities of Topo-Europe, a pan-European initiative to address the 4-D topographic evolution of Europe. Topo-Europe integrates monitoring, imaging, reconstruction and modelling of the interplay of processes controlling continental topography and related natural hazard through a multidisciplinary approach linking geology, geophysics and geotechnology. Until now, research on neotectonics and related topography development of intra-plate regions has received little attention. Topo-Europe thus has initiated a number of novel studies on the quantification of rates of vertical motions, related river tectonics and land subsidence in carefully selected natural laboratories in Europe. From orogen through platform to continental margin, these natural laboratories include the Alps/Carpathians-Pannonian basin, the Aegean, the NW European platform, Iberia, and the northern Atlantic continental margin. Topo-Europe integrates European research facilities and know-how essential to advance a better understanding of the role of topography in Environmental Earth System Dynamics. The principal objective of Topo-Europe is twofold. Firstly, it integrates national research programmes in a common European network and, secondly, it co-ordinates activities among Topo-Europe institutes and participants. Specific key objectives are to provide an interdisciplinary forum to share knowledge and information in the field of the neotectonics and topography evolution of Europe, to promote and encourage multidisciplinary research on a truly European scale, to increase mobility of scientists and to train young researchers.