



Integrated Geosciences in the Iberian plate domains: The Topo-Iberia project

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The Topo-Iberia Working Group is composed of more than 100 PhD scientists from the following institutions:

Institute of Earth Sciences 'J.Almera'-CSIC Barcelona, Universities of Granada, Oviedo, Barcelona, Complutense of Madrid, Autonomous of Barcelona, Cadix and Jaen, the Spanish Geological and Mining Institute and the Royal Navy Observatory of San Fernando

Topo-Iberia is a five/year project funded by the Spanish Ministry of Education and Science within the Consolider/Ingenio 2010 Programme of Excellence. It gathers up to 125 PhD Researchers from 10 different Spanish Institutions, and has started end of 2006.

It focuses to establish an integrated framework to develop multidisciplinary geoscientific studies in the Iberian Peninsula and its margins, and to build up a comprehensive base of data and results with an unprecedented resolution, to tackle the key existing questions by developing novel interpretation strategies, with the basic aim to understand the interaction between deep and surface processes.

Actions to develop in Topo-Iberia can be reported as methodological, regional or thematic. The former include experimental studies making use of various seismic methods, deformation measurements by GPS/geodetics, magnetotellurics and potential methods, satellite imaging, dating methods, analysis of seismogenic structures, etc. Development of analogue and numerical modelling will also be emphasized.

A very important aim of Topo-Iberia is to obtain new data with unprecedented coverage from a multi-instrumental platform named IberArray. IberArray will imply the acquisition of new geophysical instrumentation and deployment of three main networks

of seismic, magnetotelluric and GPS equipments, in a similar way as the ongoing USArray/Earthscope project in USA and intended also in the EuroArray/TopoEurope initiative.

Regional actions will consist of studies of orogenic systems including foreland basins and continental margins in the three major domains of research identified: the southern and northern borders of the Iberian plate (the Betic-Rif system and the Pyrenean-Cantabrian system) and its central core (Meseta and Central-Iberian systems). Thematic actions refer to studies of superficial processes and deep processes (at the lithosphere and mantle level), as well as environmental studies such as global change (interactions between tectonics, erosion-sedimentation and climate), natural resources and hazards.