

IGME profile

The Instituto Geológico y Minero de España (Geological Survey of Spain. IGME) is a Public Research Institution attached to the Ministry of Economy and Competitiveness and National Geological Survey.



Since 1849 the Survey produces basic infrastructural knowledge of the territory including its resources, and provides web access to the databases and geo-scientific information systems that it develops. The Institute is also the national reference centre for natural hazards and soils.

Its main mission is to provide the public administrations, the economic agents and the society at large, with information, technical-scientific assistance and advice, concerning the Earth sciences and technologies to be used in land-use planning.

All IGME's premises, including the headquarters in Madrid, 12 regional offices in several places around the country, laboratories, warehouses, library and museum, have advanced equipment and technical resources. Its drill-core repository in Córdoba is a unique and spectacular facility, where drill core and geochemical samples are stored, handled and managed. The institution has also diverse scientific-technical outreach tools, such as the Bureau of Transference of Research Results (OTRI), the Documents Centre, the Publication Centre, the Geominero Museum and the best national specialized library.

Its main scientific-technological activity may be summarized in the following strategic research programmes:

Subsoil geology and CO₂ geological storage

One of the main activities in support of the mitigation of the effects of the Climatic Change. It aims to deepening in the knowledge of the structure and physical properties of the subsoil of the country by integrating multidisciplinary information on geology, hydrogeology, geophysics, boreholes etc.

Geo-scientific information systems

Creation of geo-scientific data models in updated computerized platforms and development and implementation of systems to release those models via internet, facilitating user's access and download.

Geological Hazards, active processes and global change

Study and characterization of the physical processes and geological hazards affecting Spain both inland and in the coastal and submarine areas. Floods, earthquakes, volcanism, landslides and coastal erosion are, due to their social and economic significance, the main natural phenomena studied by this program.

Hydrogeology and environmental quality

Study of the quality and quantity of the available underground water resources for a rational exploitation and of the impacts and stresses they are subjected to.

Geo-scientific mapping

This programme is a basic reference of the Survey since its creation in 1849. Production of the geo-scientific maps of the country –in a systematic way or by user's demand- using new technologies and integrating associated geo-referenced databases.

Mineral resources and environmental impact of mining

Study and research of mineral resources, from the geological processes conditioning their existence to environmental-mining planning and recovery and reclaiming of mining sites using sustainability criteria.

Geodiversity, geological and mining heritage and scientific culture.

Mineralogical, palaeontological and geological research projects to maintain, update and raise awareness of the moveable heritage of the Museo Geominero (Geo-Mining Museum). Creation and dissemination of scientific culture in its widest sense, especially in relation to the conservation and publicizing of its important geological and cultural resources, including historic bibliographic and cartographic collections on earth science topics.

The implementation and diffusion of all these programmes intends to strengthen the research carried out by IGME and its capacity as a scientific and technical advisor to the various administrations and to the industry. In order to accomplish that goal and in agreement with international standards, due attention has been paid, to the growing sensibility of the society on matters such as geological hazards, sustainable use of underground waters, soil pollution, environmental impact of mining and the mitigation of climate change. The essential goal is to increase IGME's scientific and technical productivity, by arranging multidisciplinary teams in a more efficient manner and in response to those new challenges.