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## **The New Geological Map of Spain and Portugal at 1:1 000 000 scale. History, contents and development.**

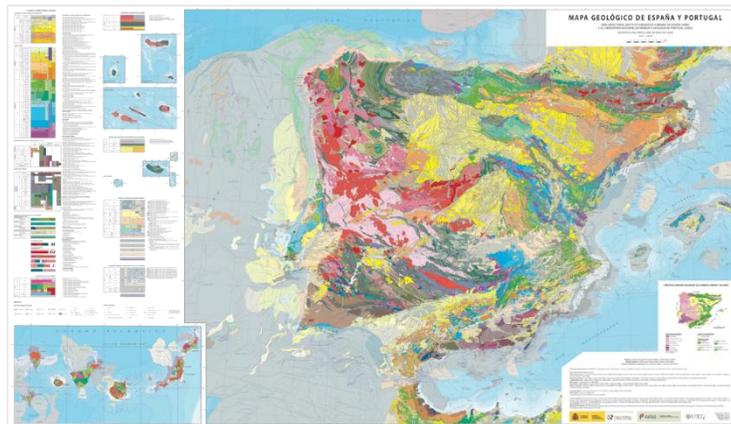
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The “Instituto Geológico y Minero de España” (IGME), which constitutes the Geological Survey of Spain, has conducted geological mapping since its foundation in 1849. This activity has been for many years, and is still today, the rationale of its existence. Starting in the second half of the 19th century, the IGME has periodically published small-scale geological maps of the whole country, reflecting the state of knowledge of the geology of the nation.

The new map presented here records the spectacular advance in the geological knowledge of the Iberian Peninsula due to previous geological mapping at a 1:50 000 scale of the whole territory by the so-called MAGNA Plan (Geological Map of Spain at scale 1:50 000). This cartographic work was performed from 1972 to 2004, and has provided the country with homogeneous and detailed geological information of high cartographic quality. The MAGNA Plan has supposed an estimated public investment of more than 130 million euros, but a cost/benefit analysis, carried out in 2004, and based on a poll among more than 400 users, revealed that until the year 2005, it has saved 2,400 million euros to the country's economy, implying a cost/benefit ratio of 18 times [1].



This new map also represents an example of international scientific collaboration, in which two government geological institutions, the IGME and the Portuguese LNEG (Laboratório Nacional de Energia e Geologia), have worked in close coordination for the completion of this task, after the signing of a cooperation agreement in February 2006.

*Spain and Portugal.*

*Figure 1: The new Geological Map of*

For the first time, geological information of the Spanish and Portuguese continental shelf is included in this series of smaller-scale maps. This information synthetizes the high amount of data generated in more than 30 years of research of Marine Geology. The legend of the map was developed individually for each of the main geological domains. There has been considerable scientific work to reach an agreement in this regard.

The printed edition of the map has followed carefully the standards proposed by the Commission for the geological map of the World (CCGM-CGMW). A pdf version is now available at:

<http://info.igme.es/cartografiadigital/geologica/Geologicos1MMapa.aspx?id=Geologico1000> (2015)

The digital geological information, only for Spain, is being structured and organized to be compliant with INSPIRE data specifications contributing to the desired interoperability among the European countries. A WMS-Inspire service including this information will be soon available at the IGME website.

*References:*

[1] García-Cortés, et al. (2005). *Economic and social value of the MAGNA Plan*. IGME, 57 pp.

