

EU- Latin America dialogue on Raw Materials

Importance of International Geological Cooperation in Raw Materials



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in cooperation with EGS
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40 Years Listening to the Beat of the Earth

Content of presentation

- ❖ The importance of the cooperation for EU and Latin America
- ❖ Areas for further international cooperation
- ❖ EGS International Cooperation and Development Task Force
- ❖ Examples of EGS activities in Latin America
- ❖ Possibilities for further cooperation between European and Latin American Geological Surveys



Importance of cooperation



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Areas for further International Cooperation

- ❖ Within Europe minerals are essential to support economic growth and our quality of life. Europe has numerous raw materials at its disposal and could, in many cases, provide a self-sufficient supply, but in reality **Europe is quite dependent on other countries.**
- ❖ Due to this reason, the European Commission recently launched the **Strategic Implementation Plan (SIP) of the European Innovation Partnership on Raw Material** in order to drive forward innovation in the sector.



Importance of cooperation

Requirements for cooperation

- ❖ Free access to mineral commodities.
- ❖ Mineral security:
 1. How long the deposits are likely to satisfy demand for minerals.
 2. What are the main limitations on sustainable minerals supply and how can we minimize their impact?



Areas for further International Cooperation

Industrial Cooperation



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ETP SMR Membership

40 Members

- Industry
- Associations
- Geological Surveys
- Academia & Research



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Areas for further International Cooperation

Mining Cooperation



More coordination
more benefits



Horizon 2020
programme: with
a focus on
international
dialogues on raw
materials



International Cooperation and Development Task Force



International Cooperation and Development Task Force (ICDTF)

Mission

To increase the capacity of EGS and its members to establish stable, permanent and effective relationships with Geological Survey organisations and other relevant stakeholders internationally, as well as to capitalise on international cooperation opportunities.



International Cooperation and Development Task Force

- ❖ Assisting the EC in the implementation of the Industrial **Policy Dialogues** with partner countries;
- ❖ Developing a strategy to work with African geological administrations for strengthening the Organization of African Geological Surveys (**OAGS**), focusing on long-term strategic cooperation.
- ❖ Expanding the cooperation to Latin America (Organisation of Ibero-American Geological Surveys - **ASGMI**), South-East Asia (Committee for the Coordination of Geoscience Programmes in South-East Asia - **CCOP**) and other areas or the world with similar demands.



International Cooperation and Development Task Force

- ❖ The ICDTF is composed of **52** experts, representing **19** National Geological Surveys
- ❖ The experts offer their expertise and knowledge based on in-kind contribution



Examples of EGS activities in Latin America

Latin America and Caribbean



- ❖ 30 countries
- ❖ 30 million square km
- ❖ different cultures, customs and philosophies
- ❖ Geological Surveys have a long history of technical cooperation with EU countries (France, UK, Germany, Italy, Spain, Czech Republic).

EGS encourages a closer cooperation with Latin American countries associated in ASGMI



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Examples of EGS activities in Latin America

BGR B4.1 – Dev. Coop. with America on Raw Materials and Energy



Title: „Fostering Exploration of Geothermal Energy in Central America“

Counterpart: Sistema de Integración Centroamericana

Status: Fact finding mission

Budget: 1,5 Mio. EUR

Duration: 11/2015 to 10/2017

Title: „Mining Cooperation in the Andean Countries“

Counterpart: Economic Commission on Latin America

Status: In execution

Budget: 1,0 Mio. EUR

Duration: 12/2014 to 11/2016



Examples of EGS activities in Latin America



GIS Andes is an homogeneous information system of the entire Andes Cordillera, covering an area of 3.83 million km² and extending for some 8500 km from the Guajira Peninsula (northern Colombia) to Cape Horn (Tierra del Fuego).

Conceived as a tool for both the mining sector, as an aid to minerals exploration and development, and the academic sector as an aid to developing new metallogenic models, GIS Andes is based on original syntheses and compilations.



Examples of EGS activities in Latin America

Nicaragua

Cooperation of the Czech Geological Survey with the Instituto Nicaragüense de Estudios Territoriales

Project: Geological investigation in Northern and Central Nicaragua

Funded by: Ministry of Environment as a part of Czech Development Cooperation Programme, 1997 -2009

Raw materials component of the project: prospection of nonmetalliferous raw materials with a focus on building and dimension stone, brick-clay and sand

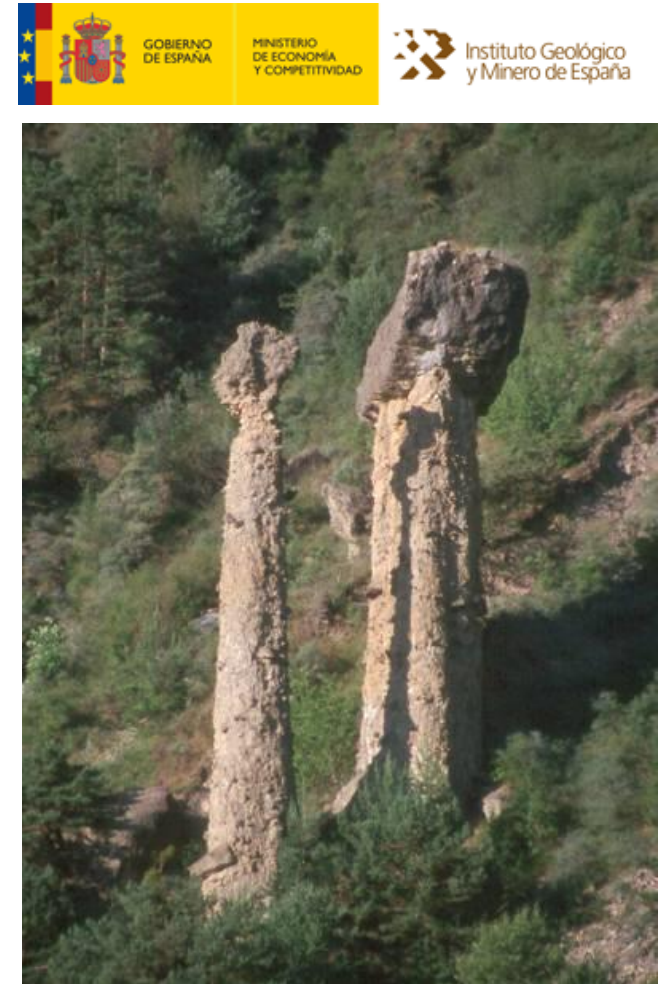


Examples of EGS activities in Latin America

Some recent projects:

- ❖ 1996-2005 study of geoheritage in geological mapping projects with Argentina and Dominican Republic GSOs
- ❖ 2010-2013 partner in European INTERREG project “Atlanterra” for the valorization of mining heritage
- ❖ 2014-2015 development of legislation and methodology for geoheritage inventory of Colombia (SGC), also including training

Other cooperations : Bolivia, Brazil, Chile, Colombia, Peru > courses and talks, counseling and assessment on geoconservation strategies (inventories, legislation, geoparks, geotourism, etc.)



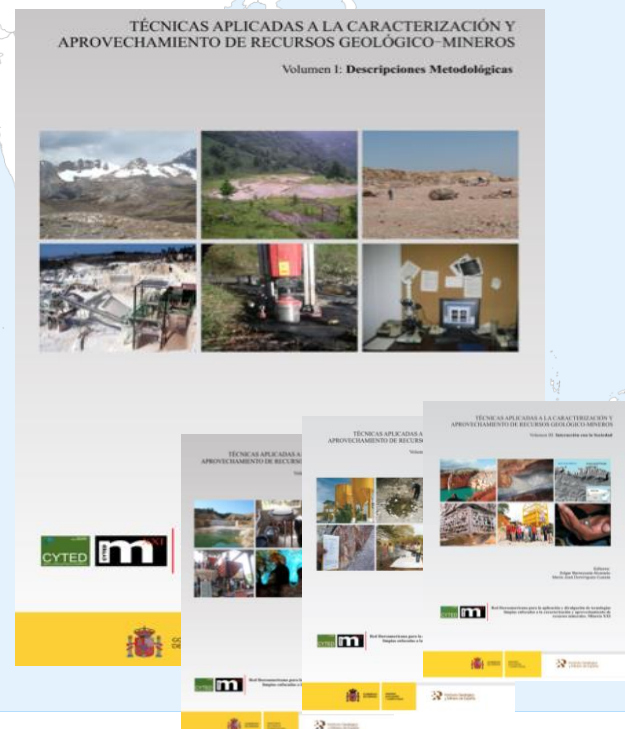
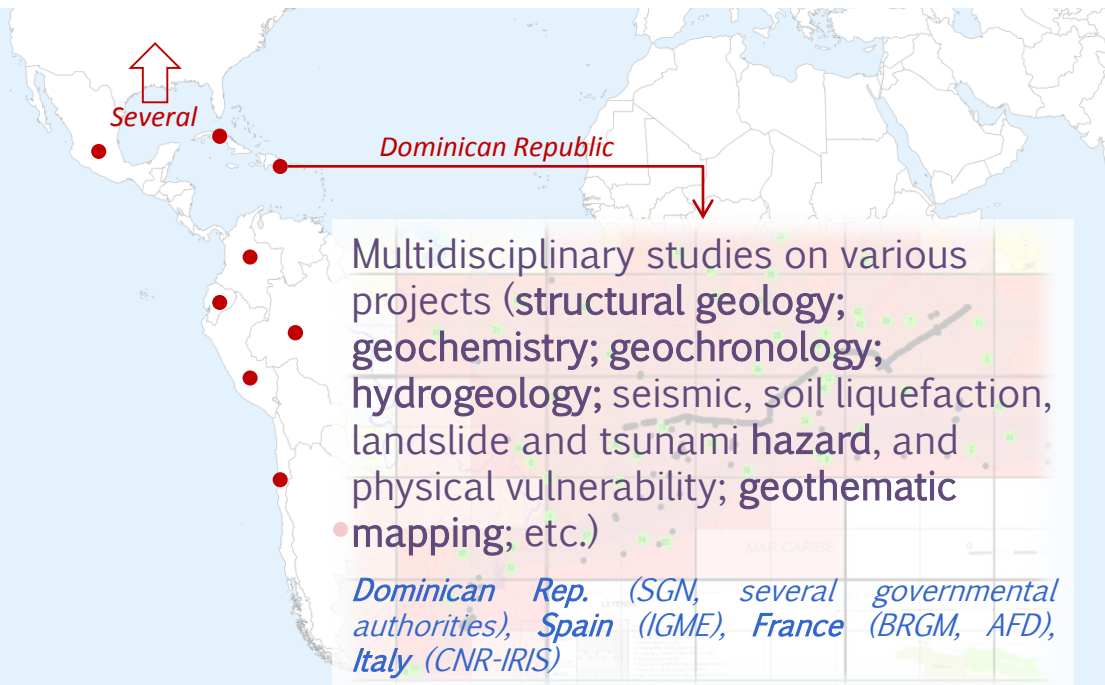
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International Activities in Latin America

Iberoamerican network for application and transfer of applied-technologies focused to characterization and use of geological-mineral resources. MINERÍA XXI.

Spain (IGME, Oviedo Univ.), *Portugal* (LNEG, CEVALOR), *México* (Sonora Univ.), *Colombia* (Centro Provincial de Gestión Minero Agroempresarial, Asyaq-Paqu Company, Nariño Univ.), *Ecuador* (Escuela Superior Politécnica del Litoral, BIRA, S.A. Company), *Brasil* (Ouro Preto Univ.), *Perú* (Quippu Exploraciones S.A.C. & BISA. S.A. Companies)



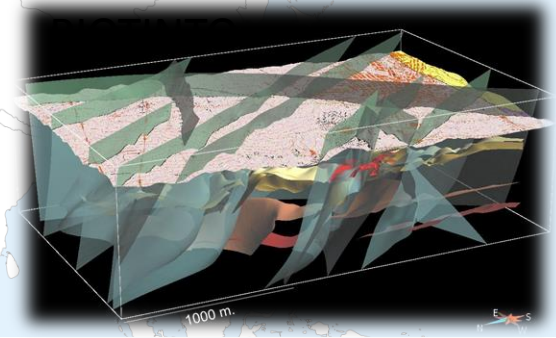
IGME International Projects

Study of fracturing, faulting and current deformation field with seismic and tomography in geothermal fields

Mexico (Univ. Autónoma de México UNAM), Univ. Michoacana de San Nicolás de Hidalgo UMICH) – Spain (IGME)

Advice and training in 3D geological modelling

Cuba (IGP) – Spain (IGME)



Colombia

- ❖ Assistance for the **SGC computerization project** focused on the access to geoscientific information through an integrated search engine and metadata.
- ❖ Advice on **tectonic and seismotectonic mapping**, and staff training in tectonic and structural geology techniques applied to geological mapping.

Colombia (SGC) – Spain (IGME)



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IGME International Projects

- ❖ Advice for the design, execution and monitoring of the systematic survey of geoenvironmental information and for the operation of a geoenvironmental information system (2015).

Argentina (SEGEMAR) – Spain (SADIM-IGME)

- ❖ Groundwater and sustainable development of human activities (assessment of recharge and discharge processes, study of wetlands, hydrogeological studies in general)

Spain (IGME, Univ. Politéc. de Cartagena), Argentina (Instituto Nacional del Agua, Univ. Nacional del Litoral, Univ. Nacional del Centro de la Provincia de Buenos Aires)



Multidisciplinary studies of the Andes made in several research projects between 1993-2015 (structural geol., stratigraphy and sedimentology, petrology and geochemistry, geological mapping, geochronology, paleontology, tectonics, etc.)

Spain (IGME, Oviedo Univ., CSIC, Barcelona Univ., URJC), Argentina (SEGEMAR, Buenos Aires Univ., Patagonia Univ., CONICET, Salta Univ., La Plata Univ.), Chile (SERNAGEOMIN, Chile Univ.)



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Plans for further cooperation between European and Latin American Geological Surveys

General Assembly of ASGMI
20-21 in October 2015 - Madrid



A continental scale cooperation between Europe and Latin America.



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Possibilities for further cooperation between European and Latin American Geological Surveys

PRACTICAL PROPOSALS FOR ASGMI – EGS COOPERATION

Activities

- ❖ Study of the main interests and needs of national Geological Surveys in Latin America.
- ❖ Exchange of experts.
- ❖ Organization of advanced thematic trainings.
- ❖ Organization of thematic case studies in selected areas in Latin America.
- ❖ Organization of workshops.
- ❖ Developing of common standards on geological data.



A photograph of a small purple flower with five petals and a darker center, growing from a cluster of green, rounded leaves. The plant is situated in a rocky, arid environment with numerous reddish-brown stones and some dry, thin-stemmed vegetation in the background.

Thank You !
Muchas Gracias !
Muito Obrigado!