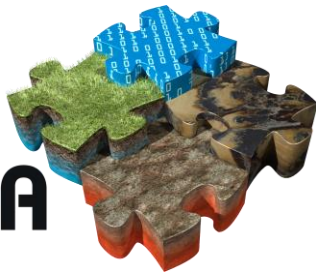


GeoERA



Establishing the European Geological Surveys Research Area to deliver a Geological Service for Europe

PRE-ANNOUNCEMENT

JOINT CALL FOR PROPOSALS
ON APPLIED GEOSCIENCE
IN THE FIELD OF



GEO-ENERGY



GROUNDWATER



RAW MATERIALS



INFORMATION PLATFORM

Expected opening
of the Joint Call:
April 2017



Pre-Announcement of the Joint Call for Project Ideas (stage one) and Projects Proposals (stage two) under the framework of GeoERA for upcoming call on the themes:

- A) Geo-Energy,
- B) Groundwater;
- C) Raw Materials, and
- D) Information Platform

1. GEOERA AIM AND OBJECTIVES

More than 50 national and regional Geological Survey Organisations (GSOs) from 34 European countries have joined forces to develop the ERA-NET COFUND action “*Establishing the European Geological Surveys Research Area to deliver a Geological Service for Europe (GeoERA)*”. The overall goal of GeoERA is to integrate the participants’ information and knowledge on subsurface energy, water and raw material resources to support sustainable use of the subsurface in addressing Europe’s grand challenges. The GeoERA consortium will launch a joint call for transnational research projects that address the development of:

- interoperable, pan-European data and information services on the distribution of geo-energy, groundwater and raw material resources and harmonized methods to assess those;
- common assessment frameworks and methodologies supporting better understanding and management of the water-energy-raw materials nexus and potential impacts and risks of subsurface use;
- knowledge and services aimed at European, national and regional policy makers, industry and other stakeholders.

The call has a planned budget of 30.3 M€, of which 10 M€ is allocated by the EC. The transnational projects selected in the joint call will be implemented by the GeoERA participants themselves, who provide their co-funding in-kind. The joint call will address four themes: **A) Geo-Energy, B) Groundwater, C) Raw Materials, and D) Information Platform**, the latter being of specific crosscutting nature while all for give credit to crosscutting implementation of findings and data.

Through this joint effort GeoERA will:

- integrate national and regional research resources;
- develop, improve and optimize harmonized pan-European coverage of geological data and information at a scale and resolution that is common to national and regional geological mapping programmes
- contribute to the establishment of a common European Geological Knowledge Base, and to the joint provision of a Geological Service for Europe;

The Geological Knowledge Base will provide European stakeholders with access to objective and seamless data, information, knowledge and expertise on subsurface resources and their sustainable management. This will contribute to the following goals:

- Enable optimal use and management of the subsurface, maximising its added value for energy, raw materials, and groundwater, while minimising environmental impacts and footprints;
- Good environmental status of the subsurface, groundwater, and seabed resources.

2. CALL DESCRIPTION AND SCOPE

The call will follow a two-stage application procedure (for details see next paragraph):

- stage one asks for *Project Ideas*, which will provide input for the stage two call text;
- stage two requests *Project Proposals*.

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Each *Idea* and *Proposal* should clearly describe how it addresses the overall GeoERA objectives, which are described in the *Annex*.

All *Project Proposals* require a transnational scope and are expected to:

- establish science-based information on the distribution, protection, evolution, accessibility and availability for exploitation of subsurface resources that is interoperable on a pan-European level;
- develop new concepts and harmonized methods resulting in concrete end-user deliverables.

Cross-cutting aspects of the Geo-Energy, Groundwater and Raw Materials themes might address e.g. methodologies, intelligence and sustainability issues. Risk assessments to attain cost effectiveness and to improve data availability, quality and harmonisation are a matter of strong interest.

The fourth theme addresses the development of a common *Information Platform*. Proposals from the other three themes shall always address the development of spatial information services, and address their integration into the Information Platform. The cross-cutting aspect regarding Theme D and its implementation are matter of compulsory explanation in project proposals (stage two), in particular.

The *Annex* provides further details on the four themes.

3. CALL PROCEDURE & ELIGIBILITY

The GeoERA call will use a **two-stage application procedure**.

GeoERA at stage one will ask for **Project Ideas** addressing one or more of the four themes described in the *Annex*. The Project Idea proposals received will provide input for the definition of specific topics within each of the four themes in the stage 2 call text, in which GeoERA asks for submission of **Project Proposals**.

The call for **Project Ideas** (stage one) is expected to open in April 2017, with an expected submission deadline of June 2017. The call for **Project Proposals** (stage two) is expected to open in September/October 2017.

Submissions of Project Ideas and Project Proposals are requested in English and in electronic format.

Project Ideas will be used to define specific call topics within each of the four themes (or across themes) in the stage 2 call text. *Project Proposals* in stage 2 must address a specific topic of the stage 2 call text.

The stage two call is open only to Beneficiaries of the Grant Agreement, which constitute the Public-Public-Partnership. However, third parties (e.g. research institutes, commercial companies) are welcome to join on their own costs, but cannot become a Beneficiary to the EC-cofund. The submitted *Project Proposals* will be checked against call criteria and national/regional budget limitations, and peer reviewed.

Templates for both stages, the required formats, eligibility and evaluation criteria and further details on the call will be provided in the Call Announcement. All the accompanied call documents will be made available online in due time.

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Provisional Time Schedule

Stage	Description	Date (mm/jjii)
	Pre-Announcement	01.2017
Stage 1 Project Ideas	Launch of the Call for <i>Project Ideas</i>	04.2017
	Deadline for submission of proposed <i>Project Ideas</i>	07.2017
Stage 2 Full Project Proposals	Launch of the Call for <i>Project Proposals</i>	09.2017
	Deadline to submit <i>Project Proposals</i>	12.2017
	Selection of transnational projects	03.2018
Kick-off	Expected start of funded projects	06.2018
Close-out	Projects closing	12.2021

4. FURTHER INFORMATION

The information in this document does not replace or override any of the requirements set forth in the official call announcement. A thorough consultation of the call documents is strongly advised.

GeoERA will facilitate the process of sharing information and establishing project consortia through the project intranet. The Call Secretariat is the central contact point for further explanations on the call.

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ANNEX - DESCRIPTION OF THEMES

Theme A: Geo-Energy

The scientific scope of proposals focused on **Geo-Energy** shall consider hydrocarbons, energy derived from solid resources such as coal, geothermal energy from hydrothermal and petro-thermal resources, capacities for temporary storage of energy carriers and capacities for permanent storage of CO₂ and other energy effluents. Collaborative projects shall fit under the following main topics:

- To deliver harmonized pan-European information on:
 - Potential subsurface contributions with regards to energy resources and storage capacities;
 - Potential risks and environmental impacts associated with subsurface use for energy applications (e.g. seismic hazards);
 - Potential competition and interference between different uses of subsurface space, including interactions with surface infrastructures and near surface resources, and opportunities for synergies.

Theme B: Groundwater

The scientific scope of proposals on **Groundwater** addresses collaborative projects within one or more of the following eight societal themes:

- Groundwater & Drinking Water and Human Health, sustaining Europe's drinking water supply, including measures to prevent the further need for extensive purification;
- Groundwater & Agriculture, including aspects of water demands for irrigation and leaching of contaminants of diffuse sources to groundwater;
- Groundwater & Climate, including projected changes in groundwater recharge, extreme events (flooding and droughts) and adaptations towards resource management under CC conditions;
- Groundwater, Energy & Mining, including the interplay between the extraction of fossil fuels and groundwater, the storage of cold and heat and the use of geothermal systems, the abstraction of groundwater for mining purposes and the potentials of contamination by mining waste;
- Groundwater & Ecology, including the environmental objectives of the WFD of good ecological status for dependent terrestrial and associated aquatic ecosystems (incl. rivers, lakes, transitional and coastal waters) that are influenced by groundwater;
- Groundwater & Hazards, including sea water intrusion, landslides, induced and natural seismicity and land subsidence;
- Groundwater & Urbanized areas, including high-resolution characterization of the subsurface to support infrastructure and water and energy systems;
- Groundwater & Subsurface Spatial Planning as a management tools to promote sustainable use of the subsurface by different actors, ensuring future groundwater use and ecological and human wellbeing.

It requests proposals relevant to at least one of these societal themes, which aim to deliver innovative harmonized groundwater information products and tools such as maps, monitoring programmes and modelling at three different scales:

- Pan-European with the aim of creating a form of harmonization of products and methodologies between EU member states;
- Cross-border or multiple-country demonstration projects addressing issues or methodologies with high promise for deliverables relevant to harmonised future characterization and assessment tools;
- A smaller number of regional methodological studies, on the condition that they generate innovative and widely applicable information products or new methodologies and tools for harmonized assessment and/or characterization between GeoERA partners and European countries.

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Theme C: Raw Materials

The challenges of primary concern related to **Raw Materials** are a) security and sustainability of supply of mineral raw materials from EU domestic sources (primary and secondary); and b) managing competing uses of the European surface and subsurface, both on- and offshore.

The scientific scope of the present call for proposals on Raw Materials “title” will have four main goals, hence:

- Extending, deepening, upgrading the quality of the pan-European primary and secondary continental and marine resources inventory;
- Updating contributions to and augmenting the coverage of the Annual Minerals Yearbook published by the Minerals4EU project;
- Performing pilot studies supporting exploration and development of mineral raw materials; and
- Implementation of innovative and efficient approaches throughout the value chain, with the aim of optimizing the use and management of the resources, while minimizing negative environmental, health and societal impacts.

With respect to the main challenges in the area of raw materials the proposals shall aiming towards the goals and should address the development and application of new technologies, models and actions to both highlight the attractiveness of the mineral endowment of Member State jurisdictions, and ensure that any possible negative aspects are carefully manage.

Theme D: Information Platform

All topics above share the objective to provide and disseminate spatial information on their respective resources and underpinning geological data.

The scientific scope of proposals on **Information Platform** addresses collaborative projects in the following research and innovation themes:

- Effectively integration of spatial information and all ICT-related and technical issues (database and dissemination) from the three topics above;
- Establishing and promoting a cross-cutting information system which ensure practicability and cross-thematic integration for topics mentioned in the call;
- Building systems for integrating and consolidating data from regional/national level to EU level, thereby ensuring fast access to data that is as complete and up-to-date as possible;
- Establishing pan-European and more local (cross-border) databases with a coordinated structure to store raw data, interpretations, and models;
- Developing standards for interoperable cross-border and pan-European scale geological base maps and datasets for Europe, including stratigraphic correlation schemes, compatible model scales and resolutions, structural geological definitions, hydraulic/reservoir parameters etc.;
- Registering and disseminating metadata including uncertainty figures about the maps, databases, products and services in a user-friendly way making it easy to find all data and to assess its relevance for a certain use;
- Setting up services to make data available according to INSPIRE and other standards making it easy to use data from different sources and thematic areas in combination and for instance solve question of conflicting interests in a certain area and depth;
- Building portals with user-friendly functions for search, visualization, analysis and download of data for management as well as research purposes in a regional to Pan European context (e.g. cross-thematic analyses for spatial planning purposes);
- Providing training and technical support to the data providers at regional and national level.

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