



Establishing a Geological Service for Europe

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Geoscience, and understanding Earth's systems, is essential to provide the resources we need while maintaining a habitable environment, contributing towards a more sustainable society. Resources from the subsurface: groundwater, geo-energy and raw materials, represent essential elements for society. Strong and integrated geological knowledge and expertise is essential to acquire data and transform it into reliable and functional information to underpin the continued development and growth of humankind.

At the national and regional level, public authorities across Europe and globally have recognized these needs, leading to the establishment of Geological Survey Organizations (GSOs). In response to growing requests for pan-European data, intensified collaboration amongst GSOs, under the umbrella organization EuroGeoSurveys, recently led to the launch of the ERA-NET Cofund Action GeoERA: "Establishing the European Geological Surveys Research Area to deliver a Geological Service for Europe". GeoERA – a demonstrator project for a Geological Service for Europe (2017-2021) – is a 30M EUR programme supported by 45 national and regional GSOs from 33 countries in Europe. It contributes to the sustainable use of the subsurface by delivering expertise, data and information to policy and decision makers through a single access point, based on the European Geological Data Infrastructure (EGDI). GeoERA and EGDI are both initiatives of EuroGeoSurveys (EGS), an international non-profit organization representing the national GSOs from 36 European countries.

Equipped with additional support from the European Commission, the GSOs intend to establish a Geological Service for Europe (GS4E) that builds on the ongoing GeoERA projects and is tailored to suit the dynamic needs of society, policy and decision makers. The mission of a Geological Service for Europe represents a robust and sustainable single access point to pan-European, harmonized and interoperable expertise, geoscientific data and information, through increased collaboration of the Geological Survey Organizations within Europe. This GS4E will provide the European Commission and other stakeholders with open access to relevant and fair subsurface knowledge, represented in pan-European maps and RDI projects/publications, to support decision making and sustainable use of the subsurface. It will address the Sustainable Development Goals related to the Earth system through delivering expertise, data and information to assess our water resources, assess and develop affordable and clean energy, support sustainable economic growth and employment, support innovation in subsurface management, assess risks of subsurface use that can jeopardize safe and resilient cities, minimize and mitigate climate change impacts and support research on sustainable alternatives.

The GS4E may also contribute to the so-called adaptation needs, that is, anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the damage they can cause, or taking advantage of opportunities that may arise. A well planned, early adaptation action will contribute to economic development through reducing imports of energy and mineral resources, increasing resilience and reducing the impact of extreme natural events, securing and enhancing safety in a long-term strategy on use of scarce water resources and improved land-use planning.