



## Deliverable

### Report on financial models

Authors and affiliation:  
**Jørgen Tulstrup, GEUS,**  
**Marc Urvois, BRGM,**  
**Jasna Šinigoj, GeoZS,**  
**Dana Čáková, CGS,**  
**Margarita Sanabria, IGME,**  
**Carlo Cipolloni, ISPRA,**  
**Patrick Bell, BGS.**

E-mail of lead author:  
**jtu@geus.dk**

Version: 22-09-2021

This report is part of a project that has received funding by the European Union's Horizon 2020 research and innovation programme under grant agreement number 731166.



Deliverable Data		
Deliverable number	D9.2	
Dissemination level	Public	
Deliverable name	Report on financial models	
Work package	WP9, Sustainability issues	
Lead WP/Deliverable beneficiary	GEUS	
Deliverable status		
Submitted (Author(s))	22/09/2021	Jørgen Tulstrup, Marc Urvois, Jasna Šinigoj, Dana Čáková, Margarita Sanabria, Carlo Cipolloni, Patrick Bell.
Approved (Coordinator)	21/10/2021	Jørgen Tulstrup



## 1.1 Background

As it was described in the FP7 project EGDI-Scope (<http://www.egdi-scope.eu/>), there has been numerous geoscientific projects generating pan-European and more localised datasets that have been made accessible on the internet through projects funded by the EU and other sources over the last years. Most of these have however ceased to function a few years after implementation, as there has been no funding available to keep them alive.

One of the main goals of GeoERA is to make the resulting data and assessments sustainable for a long period after the end of the ERA-NET. Work Package 9 of the GIP-project has the objective of proposing such a sustainable solution for GeoERA both in terms of funding and governance of the platform (operation, maintenance and further development).

Task 9.1 is specifically focussing on the funding aspects. Some potential sources were already identified before GeoERA including EuroGeoSurveys (EGS) itself, a Geological Service for Europe (a potential successor of GeoERA), Horizon 2020/Europe projects, European Open Science Cloud, JRC, etc.

This report describes the funding possibilities that have been identified at the time of writing. Main focus is on the future Coordination and Support Action for a Geological Services for Europe which is expected to be granted under Horizon Europe in 2022.

## 1.2 The GIP, EGDI and the EGS Strategy

The sustainability of the GIP is equivalent to the sustainability of the European Geological Data Infrastructure (EGDI) owned by and operated by EuroGeoSurveys. EGDI was developed in the period 2016 – 2018 in a first version and is the underlying infrastructure for all geospatial and other results from the 14 geoscientific projects of GeoERA.

EGDI is a cornerstone of EGS' strategy which has the overall aim of transforming EGS into a Geological Service for Europe (GSE). Therefore, EGS has been funding the operations and basic maintenance of EGDI until now. There have been a few attempts to get Horizon 2020 funding for specific tasks, but none of these have been successful so far.

Under GeoERA, EGDI has been substantially extended in terms of functionality and expanded in terms of data content, but the operations and basic maintenance of the platform has been paid by EGS also while GeoERA has been running.

## 1.3 The proposal for a Coordination and Support Action for a Geological Service for Europe.

At a higher level, EGS has for the last two years been working on obtaining funding for preparing for the establishment of a GSE. The first attempt was to get a Horizon Europe Partnership, but it was not possible to obtain sufficient support for that in the Commission.

Instead there has now been a call for a Horizon Europe Coordination and Support Action (CSA) for a Geological Services for Europe (HORIZON-CL5-2021-D3-02-14: Support to the activities of the European Geological Services), and EGS is currently in



the process of writing a proposal to that call. The proposal deadline is 5 January 2022 and the CSA is expected to start in the summer of 2022 and have a duration of 5 years.

The CSA will primarily support the European Green Deal through research and innovation activities on the geoscientific topics raw materials, geenergy, groundwater, coastal vulnerability and general geological mapping. EGDI has in the CSA, just like in GeoERA, been chosen to be the underlying data infrastructure for the geospatial and other results of the research, and a specific work package will be established to support that.

This work package will deal with the operations and basic maintenance of EGDI but also with extending the system to support the research and innovation activities of the CSA and with connecting EGDI to external infrastructures. As there will be around half a year from GeoERA ends to the CSA will start, EGS has agreed to continue funding the operations and basic maintenance in the spring of 2022. But from mid-2022 till mid-2027 the CSA is planned to fund the operations and basic maintenance of EGDI.

#### **1.4 EGDI in a GSE**

In the CSA there will also be a strong focus on the time after the completion of the project. A specific work package is dedicated to exploring how a GSE can be governed and funded. As EGDI will be a cornerstone of the GSE the funding of EGDI in the time after the CSA is very much dependent on what this work results in.

#### **1.5 Other sources of funding**

Before the GSE is in place, and maybe also in parallel with it, other sources of funding may be possible.

EuroGeoSurveys has an expert group on spatial information (SIEG), and this group has formulated a Strategic Research and Innovation Agenda (SRIA) including topics of relevance for data and information management related to geoscience. This SRIA will guide EGS in which topics are relevant to work on and try to get Horizon Europe or similar funding for. The topics include Big data, Machine Learning, Artificial Intelligence, Semantic Web and Knowledge Base. Most of these will be related to EGDI and projects on them may provide funding for the operations and further development of EGDI.

EGDI is a service provider to the European Plate Observing System (EPOS). EPOS is currently, however, not funding the provision of services and also not the operations of the underlying systems. In the future this may change, but the expectation is that only very little funding for EGDI can be achieved through this channel. Through the connection to EPOS, EGDI may on the other hand get the opportunity to join other Horizon Europe calls than the ones mentioned above.

Another initiative which EGDI may benefit from being connected to is the Destination Earth. This initiative aims to develop a high precision digital model of the Earth to model, monitor and simulate natural phenomena and related human activities, that should involve also the subsurface. EGS will study how to be involved in Destination Earth with the purpose of influencing the prioritization of scientific topics that could be financially supported in future calls.

EGDI may also get funding through participation in projects with a general geoscientific focus. Many such projects have participation of EGS members and need to harmonise,



safeguard and disseminate geospatial data. EGDI is in many cases an obvious platform to support this and the projects can save money by not having to establish platforms with similar facilities. The EGS thematic expert groups are made aware of this possibility and are encouraged to include EGDI as a platform and the surveys who maintain the system as partners in proposals for such projects. It could be projects funded under Horizon Europe, EIT Raw Materials, EMODnet and others.

EGS has a close working relationship with the EC Joint Research Centre (JRC) and has for instance been providing access to EGDI for JRC to integrate it in their website for the Raw Materials Information System (RMIS). Institutions like JRC will in many cases benefit from connecting to EGDI, but so far this has not resulted in direct funding of operations or maintenance/development on EGDI. More targeted promotion of EGDI towards these bodies may change that.

As mentioned earlier in this document, the EGDI facilitates key environmental concerns such as raw materials, geoenergy, groundwater and coastal vulnerability. Demonstrating that the EGDI underpins the safeguarding and provision of data and information on these themes for the purposes of research and decision making has the potential to attract the interest of sponsors or benefactors keen to help and be associated with a platform that is fundamental to tackling the environment issues at the forefront of the collective minds of society.