

## **SERVICE LEVEL AGREEMENT for 2018-2019**

between EuroGeoSurveys and the European Geological Data Infrastructure (EGDI) Consortium regarding the operation of the EGDI.

### **Preamble**

EuroGeoSurveys (EGS) is a non-profit making, Brussels-based organisation of the Geological Surveys of Europe. It is governed by Belgian law in accordance with the title III of the Law of 27 June 1921 on non-profit making organisations, non-profit making international organisations and foundations.

EGS promotes the contribution of geosciences to European Union affairs and action programmes, to publish, or see its Members publishing, technical advice for the European Union Institutions. It also provides a permanent network between the Geological Surveys of Europe and a common, but not unique, gateway to each of the Members and their national networks to jointly address European issues of common interest in the field of geosciences.

According to its Statutes, EGS shall only pursue activities that lie exclusively in the public interest or in the interest of public administration that will benefit from the combined and coordinated expertise of its members and in the direct interest of the European Union and/or of the European Free Trade Association.

EGS has formulated a strategy for establishing a Geological Service for Europe. A central pillar in this strategy addresses the need for pan-European, interoperable geoscientific information which shall be solved by building a common European Geological Data Infrastructure (EGDI). This infrastructure shall form the backbone for delivering multinational, distributed, derived spatial and temporal datasets, in line with INSPIRE and other international standards.

Members of EGS have collaborated in numerous projects through many years in harmonising geological data across Europe and have established databases, web portals

and other technologies for the dissemination of these data. The results of almost all these projects have, however, not been sustained for more than a few years after project finalisation.

To assess how to change this situation and support the vision for a Geological Service for Europe through the establishment of a long-term solution for the sustainability of the projects' results, the EU co-funded project EGDI-Scope was carried out in the period 2012 – 2014, resulting in an Implementation Plan describing how an EGDI could be established. The plan included recommendations for a technical architecture of the infrastructure, a governance structure and a roadmap for the implementation.

Following the EGDI-Scope project, attempts were made to attract funding for the establishment of EGDI, including the submission of proposals to Horizon 2020, but none of those succeeded. Instead, a group of EGS members, originating in the EGS Spatial Information Expert Group (SIEG), developed a version 1 of EGDI during the spring of 2016. The version was launched during an event in Brussels in June of 2016 and was very well received by attendants from the EC. Following this, further external funding opportunities were explored, but still without success.

In May 2017, a group of five Geological Surveys from the SIEG wrote a Strategy Paper about EGDI including a vision for the infrastructure, a list of strategic goals in a five year perspective, a number of success criteria, a description of a governance structure and a work plan and budget for a one year period. This paper was presented to the EGS General Meeting in October 2017 and subsequently a number of EGS members agreed to provide funding (107,690€) for the operation and maintenance of EGDI for 2017. It was later agreed that this amount should fund the operations for the period 1<sup>st</sup> of July 2017 – 30<sup>th</sup> of June 2018. For the next year (1<sup>st</sup> of July 2018 – 30<sup>th</sup> of June 2019) EGS members have similarly provided funding of the operations. For this period the amount is 101,990€.

The group of five Surveys has formed a consortium (the EGDI Consortium) with the purpose of operating and maintaining EGDI. At the time of signing this Service Level Agreement (SLA) the consortium consists of the Geological Surveys from Denmark and Greenland (GEUS), United Kingdom (BGS), France (BRGM), Slovenia (GeoZS) and the Czech Republic (CGS). The Consortium has signed a Consortium Agreement which has the purpose of specifying the relationship among the parties, the management of the SLA and the rights and obligations of the parties concerning inter alia liability, access rights and dispute resolution. At the time of signing this SLA the work of the EGDI Consortium is coordinated by the Geological Survey of Denmark and Greenland (GEUS).

This SLA describes the partnered relationship between EuroGeoSurveys and the EGDI Consortium to ensure the sustainability of the EGDI.

In June of 2018 the ERA-NET GeoERA started and will fund 15 research projects that will aim to support 1) a more integrated and efficient management and 2) more responsible and publicly accepted, exploitation and use of the subsurface. 14 of these projects will cover the applied geosciences, addressing the following three themes GeoEnergy, Raw Materials and Groundwater. These 14 projects share the common objective to provide and disseminate spatial information on their respective resources and underpinning geological data. As the cross-thematic integration of information is an important aspect to be addressed in GeoERA, a specific theme on an “Information Platform” that effectively integrates all ICT-related and technical issues (database and dissemination) from the three challenges has been introduced. This Information Platform is being built as an extension to EGDI. The operation of EGDI under this SLA therefore supports the development of the GeoERA projects.

In November of 2018 a European Research Infrastructure Consortium (ERIC) was established for the European Plate Observing System (EPOS). EPOS is currently being developed and will be operational in 2020. One of the scientific themes that EPOS will deal with is geology, and services from EGDI will in the future provide data on geology to EPOS.

## **Art. 1 - The Parties**

1. EuroGeoSurveys
2. The EGDI Consortium consisting of:
  - a. The Geological Survey of Denmark and Greenland (GEUS) (the EGDI Coordinator),
  - b. The British Geological Survey (BGS),
  - c. Bureau de Recherches Géologiques et Minières (BRGM),
  - d. Česká geologická služba (CGS)
  - e. Geološki zavod Slovenije (GeoZS)

agree to cooperate in terms of this SLA for the operation and maintenance of the EGDI services and other tasks as described in Art. 3. They also agree to organise and conduct the business as follows.

## **Art. 2 - Term**

The term of this agreement is from the 1<sup>st</sup> July 2018 to the 30<sup>th</sup> of June 2019.

## **Art. 3 - Services**

EGDI is a complex system with many components. Prime, however, are:

- A harvesting system and related database connected to a distributed network of servers based in each Geological Survey serving geological data;
- A diffusion system including a central database holding copies of data harvested from the Geological Surveys;
- A portal giving access to discover, view and interrogate data in the diffusion system as well as other geological and relevant data served by the Geological Surveys and others;
- A metadata catalogue containing information about the datasets accessible through the portal and about other relevant datasets from the Geological Surveys.

Together, the harvesting system, the diffusion system, portal and related services and the metadata catalogue, constitute the “services”.

## **Art. 4 - Conditions**

The Service Providers must carry out the hosting itself (servers, network, backup, monitoring, statistics, etc.), maintenance of the services, support of the staff in the Geological Surveys delivering data and services, extension of the content of EGDI by including data and services from new projects, etc. The concrete actions to be carried out in the contract period are described in Annex 2.

The EGDI Consortium shall produce a report on the work done in the period from the 1<sup>st</sup> July 2018 to the 30<sup>th</sup> of June 2019 as well as the use and availability of the system, to be submitted before the end of September 2019 to the EGS Executive Committee for approval.

## **Art. 5 - Payment**

Following approval of the EGS Executive Committee, made on the basis of the report on the work done in the period from the 1<sup>st</sup> July 2018 to the 30<sup>th</sup> of June 2019, EGS will pay the EGDI Consortium 105.190€ for the operation and maintenance of the EGDI services.

The money will be transferred to the EGDI Coordinator who will distribute it to the EGDI Consortium. Payment of VAT will be the responsibility of EGS, which will pay the due amount directly in Belgium, in accordance with the legislation in force (21% VAT = 22,089.90 €).

Payments shall be made within 30 days of receipt of the invoice from the EGDI Coordinator and shall be deemed to have been made on the date on which they are credited to the EGDI Coordinator's account.

## **Art. 6 - Signatures**

**EuroGeoSurveys,**

Signature(s)



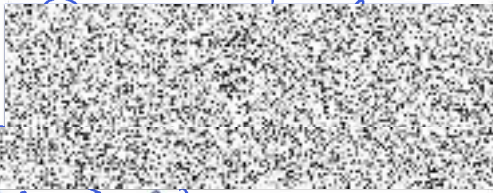
Name(s) :

Titles(s) : *President of GWS*

Date : *30/4/2019*

**GEUS,**

Signature(s)



Name(s)

Titles(s)

Date

CAREF ADVISOR

4/4 - 2019

**BGS,**

Signature(s)



Name(s)



Titles(s)

DIRECTOR OF INFORMATICS

Date

12/3/2019



**BRGM,**

Signature(s)

Name(s)

Titles(s)

Date

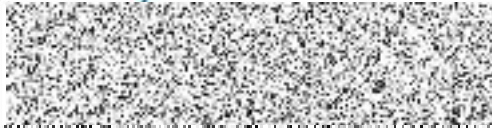
Le Directeur des Infrastructures et  
Services Numériques du BRGM



Jean-marc TROUILLARD

**CGS,**

Signature(s)



Name(s)



Titles(s)

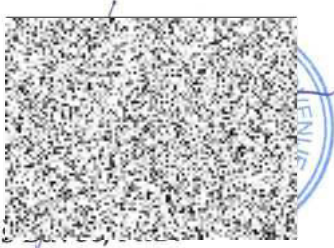
*DIRECTOR*

Date

*25.3.2019*

**GeoZS,**

Signature(s)



Name(s) Milo  
Title(s) Director  
Date 21.03.2019

## Annex 1 - Contact Information

### Customer


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### Provider

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## **Annex 2. Work plan, budget and resource allocation (1<sup>st</sup> July 2018 to the 30<sup>th</sup> of June 2019)**

### **1 Work plan**

The following is a proposed work plan for the period from July 2018 until June 2019. The responsible GSO (but others will also be working on it) are indicated (in bold) for each task and also the estimated number of hours needed to carry out the work.

#### ***1.1 Governance, funding and roadmap. 120 hours.***

- There is no urgent need to establish a Legal Body for EGDI. It was anticipated that such a body would be a prerequisite for entering into a Service Provision with the EPOS ERIC, but it has been decided – in the first instance at least – to have EGS sign the contract in behalf of EGDI. It must nevertheless be assessed whether a direct connection between EGDI and the EPOS ERIC is a better solution in the longer perspective. **GEUS.**
- A longer term roadmap for the evolution of EGDI must be drafted taking into account the relationships to GeoERA, EMODnet, EPOS, etc. **GEUS.**

#### ***1.2 Interaction with EGS. 60 hours.***

- Expert groups. Raise awareness about EGDI among the EGs and ensure new projects will provide data and funding. This will to some degree take place through GeoERA, but it is also important that the EGs that are not directly involved in GeoERA are kept informed and that the EGDI consortium is aware of their projects and ideas. It must be discussed with the EGs and the EGS Secretariat how the interaction between the EGDI Consortium and the EGS is best organised. **GEUS.**
- Individual members. Tell about/describe/assist in how EGDI guidelines can be implemented at national level, and how components of the EGDI infrastructure can be re-used or shared in national platforms. Initial discussions have been taking place with Luxembourg and Malta. **GEUS.**

#### ***1.3 Communication and fundraising. 170 hours.***

- Newsletters. 2 – 3 should be sent out explaining how the infrastructure evolves. It is relevant to tell about developments of EGDI itself but also very much about how EGDI supports other projects, programmes and infrastructures like EMODnet, GeoERA and EPOS. **GEUS.**
- Interaction with EPOS. A new MoU must be drafted. **All.**
- Targeting relevant EC bodies in order to influence coming Horizon Work Programmes and Calls. This could maybe be in collaboration with EPOS.

#### ***1.4 Architecture and common guidelines. 65 hours.***

- Principles defining what EGDI compliance means must be described. **BRGM.**
- Principles for which projects' data to "allow" on EGDI. **GEUS.**
- Documentation/guidelines regarding making data and services EGDI compliant. **BRGM.**

#### ***1.5 Standardisation. 75 hours.***

- Interaction with standardisation bodies and initiatives. **BRGM.**

#### ***1.6 Basic maintenance. 818 hours.***

- Continuous update of data included to the system.
  - Surface Geological Map (Lithology and Age).

- Addition of missing European Countries (e.g. Austria, Switzerland, Slovakia and some Balkan countries) on surface geology map where countries are keen to do so and full GeoSciML 4 services will be provided. **BGS (and GeoZS for Balkan).**
- Harvesting and including in current dataset. **GeoZS.**
- Correction of issues relating to the legend. **BGS**
- Revision of service metadata including advertising access and use constraints. **BRGM/BGS/CGS**
- Minerals4EU.
  - Addition of data from new data providers into the database.
  - Harvesting (**GeoZS**).
  - Diffusion (**BRGM and GEUS**).
  - Make BGS minerals index data compatible with that provided by other countries through provision of point data with ERML compatible attributes. **BGS.**
  - Discuss migration of metadata from the Minerals4EU project metadata catalogue to the EGDI catalogue, set the harvesting from the national catalogues whenever possible.
- GeoPLASMA-CE **GeoZS.**
- AMIGA **GeoZS.**
- Greta (Intereg Alpine Space). **GeoZS.**
- Roof Of Rock (Adriatic IPA cross Border Cooperation) **GeoZS.**
- Co2STOP. **GEUS.**
- GEMAS maps (grids) subject to data provision with appropriate approval for publishing. **BGS.**
- North Sea Regulators data. Harmonised. **GEUS.**
- Borehole data, combined dissemination of EPOS and EMODnet data. **GEUS.**
- MICKA metadata system. Ongoing. **CGS.**
- BRGM-platform. Ongoing. **BRGM.**
- Harvesting system. Ongoing. **GeoZS.**
- Maintenance of static web-site. **GEUS.**
- QGIS-interface. **GEUS**
- Aggregated points. **GEUS**
- Project/theme hierarchies in menu-system. **GEUS**

### *1.7 User support. 508 hours.*

- Harvesting system. Ongoing. **GeoZS.**
- Metadata. Ongoing. **CGS.**
- Custom versions of the platform. Ongoing. **GEUS.**
- Capacity building through webinars (2 to be carried out in this period). **BGS.**
- Updates to Cookbooks created in projects such as OneGeology and GeoERA that support and underpin the requirements of EGDI. **BGS**

### *1.8 Planning and reporting. 109 hours.*

- Financial reporting to GEUS. **BRGM/GeoZS/CGS/BGS.**
- Progress reporting and updating work plan annually for approval at EGS GM. Annually. **All.**

## 2 Resource allocation

### 2.1 Labour costs

In Table 1 the estimated resources needed to carry out the tasks of the Work Plan are listed.

GSO	Total hours	Total labour cost
BGS	361	17.537
BRGM	150	11.582
CGS	535	15.501
GeoZS	455	11.451
GEUS	425	32.267
<b>Total</b>	<b>1925</b>	<b>88.337</b>

**Table 1: Staff resources estimated necessary to carry out the different tasks of the Work Plan**

### 2.2 Travelling

Physical meeting activities will be limited as much as possible by trying as much as possible to arrange meetings back to back with other activities like EGS meetings. Therefore the budget only accounts for 7 1-day meetings altogether (1 for BGS, 1 for BRGM, 1 for CGS, 1 for GeoZS and 3 for GEUS) at a total cost of 3,500€.

### 2.3 Other costs

The EGDI system currently consists of four installations:

- The Harvesting system hosted by GeoZS,
- The Metadata system hosted by CGS,
- The database, website and web-GIS development system hosted by GEUS, and
- The production database, website and web-GIS system hosted by BRGM.

For server hardware, software, maintenance, backup, network, etc. the following amounts are budgeted:

- GeoZS: 5,000€
- CGS: 5,000€
- GEUS: 5,000€
- BRGM: 5,000€

### 2.4 Total budget per GSO

In total the estimated resources add up to 117.712€. As only 105.190€ is committed by the EGS members, the requested amount for each GSO has been reduced proportionally as shown in the table:

GSO	Estimated total cost	Requested total cost
BGS	18.162	16.230
BRGM	18.457	16.494
CGS	22.376	19.995
GeoZS	18.326	16.376
GEUS	40.392	36.095
<b>Total</b>	<b>117.712</b>	<b>105.190</b>

In Annex 3 (separately provided spreadsheet) the different budget items are detailed.