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Scoping Study for a pan-European Geological Data Infrastructure

D 5.4

Guidelines on the Legal and Organizational Framework

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Executive Summary

Deliverable 5.4 aims to summarize the legal and organizational research conducted in EGDI-scope and explain how the encountered issues could be tackled. Furthermore, its goal is to provide recommendations and guidelines from a legal perspective.

The first part of this deliverable focuses on the legal evaluation of the trust and authentication mechanisms. The second chapter deals with the applicable regulation and policies (including focusing on the different licensing schemes). The third and final part of the deliverable will focus on the governance structures of EGDI-scope.

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1 Introduction

Deliverable 5.4 is the last one in the series of legal deliverables in the EGDI-scope project. It concludes the legal research that was conducted throughout the project lifetime. This deliverable summarizes issues that were described in deliverables 5.1 (trust and authentication), 5.2 (regulation and policies) and 5.3 (governance structures). All these documents identified legal and organizational issues that were expected to arise in the implementation of the EGDI. These documents also provided guidance to the partners in the partners as well as the national geological surveys on how to tackle them in order to comply with the applicable legal framework. A variety of issues were addressed such as (1) the trust and authentication mechanisms to ensure trust in the EGDI data, the EGDI services and the EGDI people, (2) the applicable legal framework, in particular the wide amount of licensing schemes and policies available to license the EGDI data under, and (3) the governance structures under which the EGDI will be implemented and conducted.

In all these areas, requirements were formulated for the EGDI-scope project, including both obligations and rights for the involved parties. They also identified obstacles that could be faced when implementing EGDI and looked for solutions to surpass them.

The deliverable aims to provide a final version of legal and organizational guidelines for the further implementation of the EGDI.

2 Trust and authentication

2.1 Objectives

Deliverable 5.1 "Trust and authentication" was the first legal deliverable in EGDI-scope. As such, it was prepared at an early stage in the project. Its main goal was to identify the legal requirements and conditions in order to ensure trust within the EGDI infrastructure and look at the roles and profiles that may need to be developed for this. No matter how the EGDI is designed, its most important aspect is that it can and will be used by all organisations and people needing geological data. For this to be materialised, it is essential that the EGDI invokes sufficient trust from both the providers and users in that they are certain that their rights and interests are being safeguarded, that they can count on the data, services, technology, policies and people that are part of the infrastructure.

This deliverable has been picked up by Work Package 4, when developing the technical infrastructure and technical design. An extensive legal analysis also showed that many of the legal and technical requirements as well as decisions regarding trust and authentication would also depend on the final EGDI governance body (deliverable 5.3).

2.2 Trust in the data

For the user to feel comfortable in using the geological data sets (both primary and derived) offered by the EGDI, he or she has to have enough guarantees and safeguards that the data are reliable and of sufficient quality and fitness for purpose for the objectives he wants to obtain. Several measures and tools are available to increase this trust, including metadata, transparent quality assessment procedures, authoritative data, security measures for maintaining the authenticity and integrity of the data, etc. The more different providers of data are included in the EGDI, the more difficult it will be to maintain the trust in the data.

In the rollout of the EGDI, there are a number of requirements that could be fulfilled to ensure optimum trust in the EGDI datasets.

- The availability of high-quality *metadata* for all datasets and services. Metadata enables the users to find the most appropriate datasets or services to fit their requirements. Hence, users will base their decisions on the information they get in the metadata.

- Enabling full *quality assessment and assurance* entails not only knowing the information in the metadata, but also more information about the legacy of the data, the collection and validation process.
- Collect the geological data once at the most suitable place, and re-use the data multiple times. *Authentic sources* are generally recognized by law, and have to comply with stringent quality requirements.
- *Security* of the geological data in the EGDI will take a very important place. An effective security policy includes technical measures, physical and administrative measures.

Recommendations

- Streamline the *metadata* process as much as possible, including the same metadata elements in the description of non-INSPIRE datasets
- The data providers in the EGDI should consider whether it would be useful and feasible to design a *standard method* for the description of *quality* of the geological data included in the EGDI
- Consider how to deal with *national authentic sources*. Consider the development of a *pan-European* authentic source on the basis of these national sources.
- Set up a *security policy* that provides sufficient security but also maintains user-friendliness. An effective security policy should not refrain users from using the EGDI.

2.3 Trust in the services

If a user has to rely on obtaining data via services such as the INSPIRE network services, he or she has to be able to rely on the availability of these services whenever they are needed. Hence a sufficient level of service has to be guaranteed by the service providers in the EGDI, and the offered level of service has to be communicated clearly to the users of the services via what is generally referred to as service level agreement or terms of service. The required level of service is to a large extent determined by the INSPIRE implementing rules relating to the network services, but may also need to be laid down for other services in the EGDI.

When implementing the EGDI, with regard to establishing trust in the services, the EGDI service providers will have to make sure that a number of requirements are fulfilled.

- Users of the services will need *metadata* as well as more *information* about the *quality* of the services that EGDI offers
- *Service level agreements* or *terms of service* will have to be developed that are both feasible for the service providers as well as sufficient in terms of accessibility and availability for the users
- The *security policy* that is developed for the EGDI data should be extended to the services
- A *digital rights management* system should be implemented to define, manage and track rights on digital content

Recommendations

- Consider how *metadata* can also include information on the fitness for purpose, and which other channels can be used for providing information on the characteristics of the service
- Setting up *common or harmonised service levels* for all particular categories of services in the infrastructure could be an option for the EGDI
- The *security policy* should pay sufficient attention to services, in particular with regard to access management and guarantees for continuity
- EGDI should consider to what extent *right management technology* is required, in coordination with the licensing policy set up with the GeoRM and GeoRL standards. It should also consider a support and implementation strategy for implementing these standards in the participating organisations.

2.4 Trust in the people

An essential part of the EGDI is the people and organisations that are using it, both to provide data and services and to use these data and services. For the data providers it may be important, depending on the data and use conditions, to know who is using their data and how they are using it. For the data users it is important to know whom the data is stemming from and that access and use of the data is not unnecessarily restricted. In addition, they need to be sure that the data provider does not misuse the information on their identity and their use of the data. This relationship involves issues such as authentication and identity management, rights management and personal data protection.

The following conditions were developed throughout the EGDI-scope project and should be fulfilled to ensure trust in the people.

- An appropriate *identity management system* needs to be set up allowing for cross-border transactions, not imposing too heavy burdens on the users of the system
- Ensure appropriate *personal data protection*

Recommendations

- Consider the creation of a *federated identity management* and the appropriate software, policies and security for this should be agreed upon
- Create a *privacy policy* in accordance with the European Data Protection Directive (which includes the division of tasks and responsibilities, the assignment of the data controller, description applicable national data protection legislation, form for consent, legitimate purpose of personal data processing, etc.)

2.5 Moving the EGDI to the cloud?

Deliverable 5.1 also discussed the option of moving the EGDI to the cloud. Many public sector organisations have decided to use cloud services for their activities or are contemplating this move. This could also be a possibility for the EGDI. To a certain extent, the EGDI can already be considered a form of cloud in itself, but it can also consider involving cloud services from private sector vendors. This may have considerable benefits relating to scalability and efficiency. However, there are a number of risks and possible disadvantages that need to be taken into account.

On the one hand, a number of benefits to the cloud were identified:

- Reduced cost
- Pricing flexibility
- Agility
- Risk reduction

There are on the other hand, also a considerable number of risks associated to the use and provision of cloud services.

- Using cloud services will mean that the user depends on the cloud service provider's *security measures*, which may turn out to be inadequate

- In the context of *personal data protection*, the division of responsibilities and liabilities between the different actors in the cloud computing value chain, and the determining of the processors and controllers of the data processing operations and their obligations are not clear
- It must be carefully considered which entity will be in control of the data, and assess the ownership of the data
- It must be assessed whether the cloud services are *interoperable* and allow for the sufficient migration of data
- *Applicable law and jurisdiction* is often laid down in the standard terms of the cloud service provider, without room for negotiation

Recommendations

- A proactive approach in assessing the appropriateness of the cloud provider's *security measures* in relation to the sensitivity of the data involved will be necessary.
- The EGDI governance structure will have to evaluate in how far the cloud service provider can guarantee the compliance with the EU data protection rules, especially regarding the *storage of data.*
- It should be checked to what extent the cloud service provider has access to the data for monitoring or maintenance purposes and for which purposes it can use any resulting information. Sometimes, the provider will even want to retain the right to use data from the cloud user even after the contract has terminated.
- Appropriate *exit arrangements* should be made for the transition to other cloud service providers to avoid *vendor lock-in*
- Check whether the *cloud service providers* allow audits in order to provide compliance with particular standards or national regulation
- If possible, the EGDI governance structure should try to negotiate the applicable law and jurisdiction to at least a country of the European Union

- *Assess the risk* of adopting cloud services (comparing the risks in maintaining a classical organisation and architecture with the risks of migrating to a cloud computing environment)

- Try to *negotiate* so far as possible so that the requirements of the infrastructure, the data and service providers, and the end users can be met. Points of negotiation include amongst others: liabilities, remedies, service levels, including availability, privacy and security, lock-in and exit arrangements, providers' ability to change service features unilaterally, intellectual property rights, applicable law and jurisdiction.

3 Regulation and policies

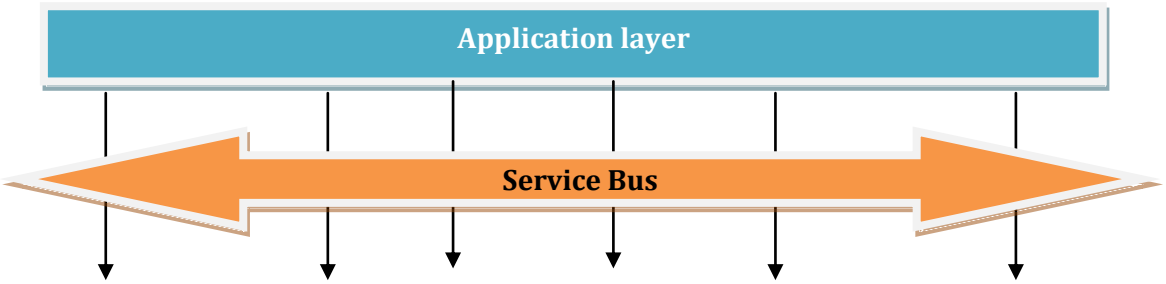
3.1 European Legal framework

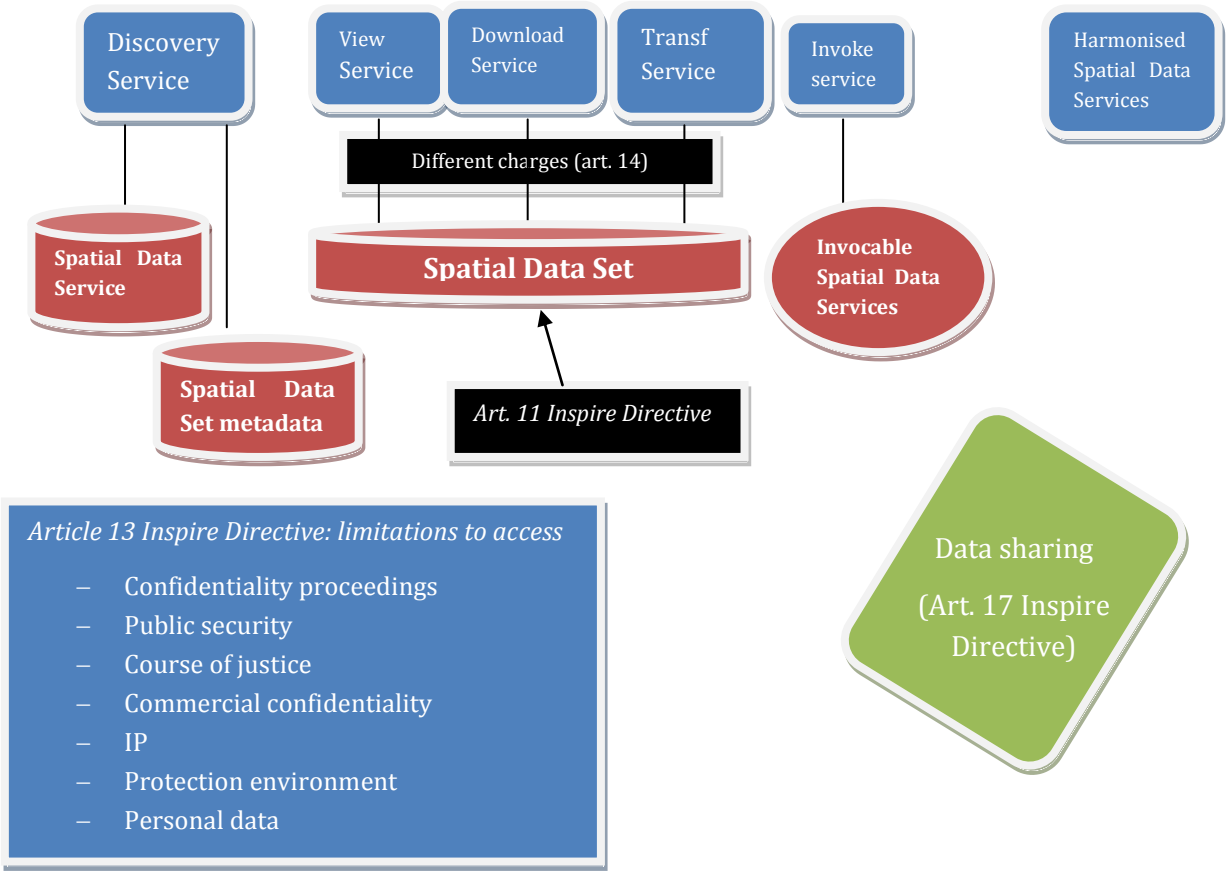
The EGDI operates against the background of an elaborate existing legal framework (global, European and national legislation) and builds on many existing projects and initiatives on increasing data accessibility (including OneGeology-Europe, ESDIN and LAPSI).

First, European legal instruments that are taken into account include the 2007 INSPIRE Directive with regard to sharing spatial data for policy activities regarding the environment, and the 2003 directive on public access to environmental information. Next, the 2003 directive on the re-use of public sector information also plays an important role. Moreover, this 2003 directive was recently updated by the 2013 directive on PSI re-use. These amendments will have a relative influence on the data policy of the EGDI. For example, the 2013 directive now includes a genuine right to re-use; all documents within scope (i.e. legally public) shall be re-usable for commercial or non-commercial purposes. These European legal instruments, i.e. the INSPIRE Directive and the PSI Directive constitute respectively chapter 1 and 2 of deliverable 5.2.

European Legal Framework

Inspire Architecture[1]





PSI Directive

- **Access rights**

  All documents within the scope of the PSI Directive (i.e. what is already legally public) shall be reusable for commercial or non-commercial purposes;
- **Re-use**

  Public sector bodies must in principle process the request and deliver the documents not more than 20 working days after its receipt. In the event of a negative decision, the bodies must communicate the grounds for refusal to the applicant
- **Redress mechanisms**

  Redress should be through an "impartial review body with appropriate expertise", "swift" and "with binding authority" (e.g. national competition authority, national access to documents authority or the national judicial authority)

- **Format**
  Public sector bodies must make their documents available in any pre-existing format or language and where possible and appropriate, in open and machine-readable format together with their metadata
- **Charging**
  Charges shall be limited to the "marginal costs of reproduction, provision and dissemination" (but there is room for exceptions i.e. when public sector bodies are required to generate revenue and for specifically excepted documents)
- **Transparency**
  Public sector bodies are obliged to pre-establish and publish the applicable conditions and actual amount of the standard charges including the calculation basis
- **Licensing**
  Licenses shall not unnecessarily restrict re-use possibilities and shall not be used to restrict competition
- **Practicalities**
  Asset lists of the main accessible documents should be available together with their relevant metadata; accessible where possible online and in machine-readable format. Member-States should facilitate the cross-lingual search for documents available for re-use.
- **Non-discrimination**
  Discrimination between comparable categories of re-use is not allowed.
- **Exclusive agreements**
  All exclusive agreements between public sector bodies and third parties are prohibited with the exception for situations where this is absolutely necessary for the provision of a service in the public interest.

3.2 National legal framework

These European instruments have all been translated in and supplemented by national legislation on the availability of geological and other data (except for the 2013 directive which should be transposed by 2015). In addition, harmonised or open licensing policies were developed and previous research projects have provided valuable input for the development of the EGDI (i.e. OneGeology-Europe and ESDIN for example).

These existing national legislations, which differ greatly from each other and sometimes even prohibit the services EGDI aims to offer, pose a substantial barrier for the good workings of the EGDI. At the same time, there are also Member States, which could serve as a best practice for 'open geological data', for example: the Netherlands (TNO). The Dutch geological service first opened up its geological data ten years ago. Open geological data is also the crux of TNO's business model. This is however not at all the case in every Member State.

EGDI has created a comparative overview of the different regulations and policies in order to test at a basic level how these would interact and create a number of requirements to a license for the EGDI in order to overcome most of these legislative barriers.

Recommendations

- In a 1st phase, the EGDI should focus on data that is publically available at no charge. This should eliminate a substantial part of the barriers stemming from a lack of regulatory harmonisation.
- In a 2nd and 3rd phase, the EGDI should include data that is restricted. This consists of data that is only available at a charge or under certain conditions. In this phase, the EGDI should adapt its licensing policy accordingly. (*infra 3.3*)

3.3 Licensing policies/guidelines

3.3.1 Data accessibility

In the second part of deliverable 5.2, we analysed the state of the art in licensing policies/guidelines suitable for geological data and public sector information. To learn from previous experiences and to remove the remaining barriers and conflicts relating to the availability of data and the dissemination of geological data, we introduced a comparative overview of 14 different licensing policies.

The issue of data accessibility and licensing form crucial barriers to an EGDI infrastructure or in general, the optimal sharing of geological data within the EGDI. Many initiatives are indeed being taken to improve the accessibility and accessibility of data, but they are generally operating within a specific sector or country. A large body of information exists

on these initiatives, but it is still much dispersed, leading to duplication of efforts without integration towards an encompassing data infrastructure. Moreover, while the harmonisation of licensing models and practices is essential for sharing geological data across borders between public bodies, the private sector and the broader society, the focus in the geo-domain still seems to remain mostly on the standardisation of the technical aspects of geo-data. Yet, non-transparent and inconsistent licenses have often been identified as a major barrier to the sharing of data across the geospatial community and a clear need for harmonised geo-licenses is increasingly being recognised.[2]

Another major barrier is the use of non-standard licenses that are difficult to understand, both for human beings and computers. This applies to the use and combination of different geological data and geological information services within one jurisdiction, but also to cross-border and international use. [3]

Within EGDI we aimed to surpass these national or sector-specific licensing policies via this comparative overview and we suggested a number of specific licenses that could be suitable for the EGDI data/services (in their original form or with certain adaptations). When looking at the 14 different licensing guidelines and policies, the ultimate objective of EGDI should always be kept in mind, i.e. greater harmonization of the access and licensing policies throughout Europe.

3.3.2 Comparative overview licensing policies

We looked at the following 14 licensing models/policies, the result of which you can find in substantive detail in deliverable 5.2:

Name/Organisation	Location/ Region	URL
Creative Commons Framework	World	http://Creativecommons.org
Creative Commons Zero	Wold	http://Creativecommons.org

[2] Katleen Janssen and Joep Crompvoets (eds.), Geographic data and the law : defining new challengs, Leuven University Press, Leuven, 2012, 19.

[3] Katleen Janssen and Joep Crompvoets (eds.), Geographic data and the law : defining new challengs, Leuven University Press, Leuven, 2012, 19.

Open Data Commons	World	http://opendatacommons.org/licenses/
Flemish Open Government License	Flanders	http://www.bestuurszaken.be/modellicenties-bij-het-aanbieden-van-open-data
GeoShared (Geogedeeld)	The Netherlands	http://geogedeeld.geonovum.nl/
AusGOAL	Australia	http://www.ausgoal.gov.au/the-ausgoal-licence-suite
GeoConnections	Canada	http://www.geoconnections.org/publications/Best_practices_guide/Guide_to_Best_Practices_Summer_2008_Final_EN.pdf
APIE	France	http://www.economie.gouv.fr/apie/donnees-et-images-des-licences-pour-favoriser-reutilisation-des-informations-publiques
Ordnance Survey (Open Government License)	United Kingdom	http://www.ordnancesurvey.co.uk/business-and-government/licensing/licences/
Inspire License	European Union	http://inspire.ec.europa.eu/documents/Data_and_Service_Sharing/DSSGuidanceDocument_v5.0.pdf
GEOSS principles	World	https://www.earthobservations.org/documents/geo_vi/07_Implementation%20Guidelines%20for%20the%20GEOSS%20Data%20Sharing%20Principles%20Rev2.pdf
SeaDataNet	Europe	http://www.seadatanet.org/content/download/3899/29604/file/SeaDataNet%20Data%20Policy%20.pdf
Ecomet	Europe	http://www.ecomet.eu/ecomet-catalogue/ecomet-licenses/ecomet-licenses
OneGeology -Europe	European Union	https://www.law.kuleuven.be/apps/icri/db_publications/1193Microsoft%20Word%20-%20Euregeo_Janssen_Kuczerawy_Dumortier_final.pdf

***Table 1**[4]

In the review of these different licensing models and policies it was found that almost all of them contained provisions for the same topics. These included but are not limited too:

- Definitions
- Grant of License
- Restrictions on use/allowed use
- Term and termination
- Dispute resolution and governing law
- Choice of jurisdiction
- Payment
- Assignment and sub-contracting
- Use by contractors

At first sight, this suggests that these licenses could be harmonised rather easily for geological data. However, their content varies substantially. Hence, further harmonisation is needed at two levels, especially when it comes to data that would be disseminated under certain restrictions. First, EGDI searched for licenses containing standard formulations for each provision in the license agreements. This means that the organisations and the public sector bodies that provide data to the EGDI infrastructure would still be able to determine their own requirements and conditions for the use of their data but these requirements and conditions would need to be selected from a list of standard requirements and conditions, formulated in standard clauses with harmonised wording.

On a second level, EGDI searched for a license that, although offering a number of standard requirements and conditions, has limited the types of conditions that can be imposed so that the greater exchange of geological data would be encouraged as well as making the license user-friendly while offering flexibility.

For the EGDI infrastructure to disseminate geological data at an optimal level, reducing or even eliminating most the barriers to sharing, the license(s) need(s) to comply with a number of requirements:

- Streamlined and standardized;
- Interoperability;

[4] Katleen Janssen and Joep Crompvoets (eds.), Geographic data and the law : defining new challengs, Leuven University Press, Leuven, 2012, 30

- Limitation of the type of conditions making the license as clear, transparent and user-friendly as possible;
- Machine-readability;
- Cost-effective;
- Suitable for data with a high amount of restrictions and the access to which is not necessarily free of charge;
- Suitable for re-use of public sector data (complying with the relevant Directives such as the PSI Directive);
- User-friendly avoiding any complexities or overflow of information and legal language;
- Transparency and consistency;
- Flexibility to tailor the license for any type of data/datasets with the standard type of conditions provided.

Recommendations

- EGDI should avoid creating new types of licenses or ad hoc licenses if this is not absolutely necessary. We need to move away from ad hoc licenses created by individual organisations towards nationally or sectorially coordinated harmonised licenses. A *global licensing model for geological data* will substantially improve *legal interoperability* of geological data and geological information services.
- To comply with the above stringent requirements, it is suggested to use two types of licenses. The 1st type of license should be suitable for the data and datasets that are available openly, without any restrictions and free of charge while the 2nd model license should be suitable for data or datasets that are only available under certain conditions and against a charge.
- For the 1st type of license, EGDI suggests Creative Commons 4.0 or the Open Government license (Ordnance Survey) because of the following characteristics:
  Standardized and automated;
  Prominent and universally recognized;
  CC 4.0 addresses the *sui generis* database rights applicable to data/datasets;
  OGL created specifically for the re-use of PSI.
- For the 2nd type of license, EGDI suggest the GeoShared (GEOGEDEELD) License because of the following characteristics:
  Standard conditions;
  Easily adaptable to a number of situations;

Limited options;

Streamlined license;

Very user-friendly;

Transparent;

Suitable for public sector information and geological data.

4 Governance framework

4.1 Objectives

Deliverable 5.3 "Governance structure" deals with the organizational framework needed to manage the EGDI infrastructure. In this report, the tasks and processes that need to be governed, possible organisational structure and arrangements to do this, the relationship between EGDI and several parallel initiatives, and their consequences for governance, legal models and business models are discussed.

This deliverable was prepared in parallel to the work of a Task Force Governance, installed by EuroGeoSurveys with the specific task to look at governance aspects of EGDI, the EuroGeoSurveys strategy – of which EGDI is an important pillar – and the EU project Minerals4EU.

4.2 Conceptual Governance framework

The report shortly presents the EuroGeoSurveys strategy towards the development of a "European Geological Service", as well as the position of EGDI in this strategy. EGDI is one of the key pillars of this strategy, as it facilitates sharing, harmonisation and dissemination of pan-European, policy relevant geological datasets and information services.

Next, the report presents a conceptual governance framework (see figure 1 below) that identifies three different levels important to spatial data infrastructures: "Data", "Systems" and "Services". At each of these levels, ownership, funding and necessary commitments, and consequently governance, may be different.

The report also discusses the position of EGDI, data-sharing projects (exemplified by the Minerals4EU project) and the European Geological Service with respect to this general framework (see also figure below). It makes clear that EGDI is focussed on the system level, and as such can facilitate data sharing projects like Minerals4EU. This is in line with the idea that EGDI implementation should in part be done in the context of such on-going and future projects.

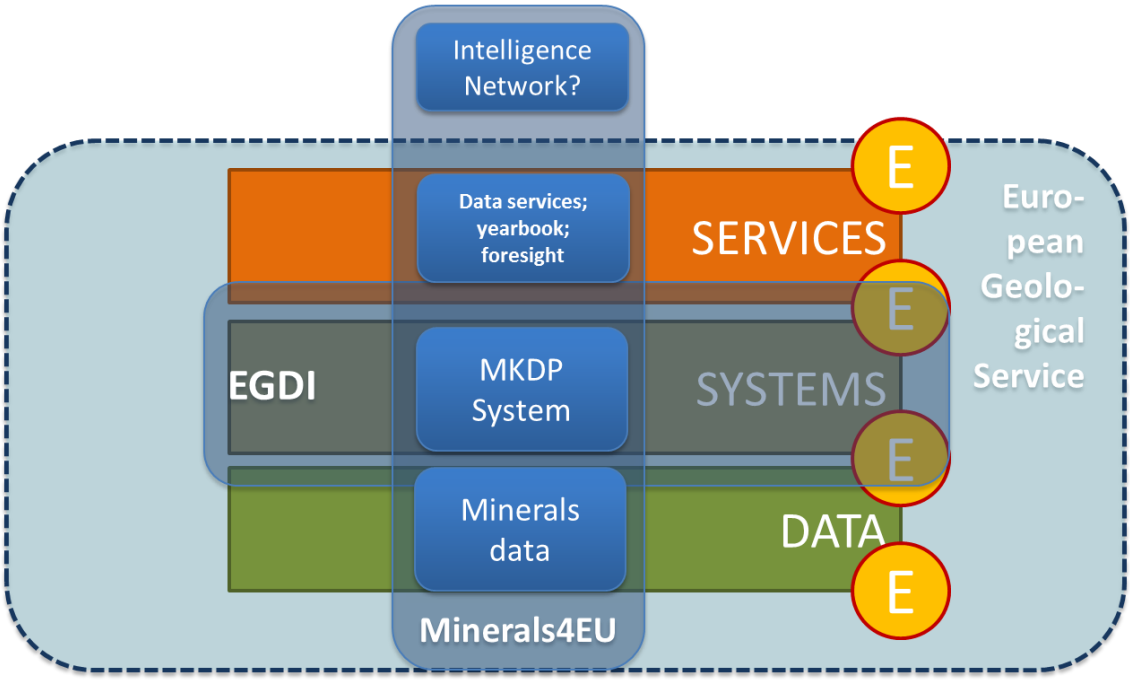


Figure 1: Conceptual governance framework and position of EGDI, the Minerals4EU project and the European Geological Service with respect to this framework.

The relationship with parallel initiatives like INSPIRE, EPOS and GEO are also shortly discussed in the context of their impact on EGDI governance.

Recommendations

- In implementing EGDI Governance, the wider context of the EGDI strategy towards development of a European Geological Service, as well as parallel initiatives such as INSPIRE, EPOS, etc. needs to be taken into account.
- EGDI Governance should facilitate alignment of its objectives with these other initiatives
- EGDI Governance should address differences in ownership, business models and required commitments at different levels of the conceptual framework.

4.3 Tasks of the central EGDI facility

In the second part of the report, the tasks of the "central facility" needed to run the EGDI (at a minimum level, so exclusively relating to basic maintenance of the infrastructure as

well as data and information services) are outlined. The section gives also a first estimate of the effort – in terms of manpower - and funding needed to carry out these tasks.

The tasks are grouped into three different categories: "Central-central" (tasks that have to be carried out by the central organisation itself"); "Central-delegated" (tasks that relate to the central facility, but could be delegated to a single member of the infrastructure); and "distributed" (tasks that need to be carried out locally at *each* member of the infrastructure).

Apart from the *practical* tasks needed the *run* the infrastructure, the report also identifies *legal and organisational* tasks needed to *set up and govern* the infrastructure.

Recommendations

- EGDI should make a choice whether the tasks identified under "central-delegated" are indeed delegated to one or more individual member organisations.
- If this choice is made, than procedures should be put in place to determine who such tasks are delegated to (e.g. through a tendering procedure, which could be repeated on a regular basis), and under what conditions (e.g. through a system of service level agreements).
- "Distributed" tasks should also be clearly described and procedures for their performance should be indicated (again e.g. through service level agreements).

4.4 Boundary conditions and governance models

Based on the foregoing sections, the report identifies a number of boundary conditions the EGDI governance structure needs to fulfil.

Subsequently, the report discusses a number of possible organizational models. As the EGDI is developed by the Geological Surveys of Europe in the context of their collaboration within EuroGeoSurveys, this section starts with a description of the current organizational model of EuroGeoSurveys. The other models derive from this current model.

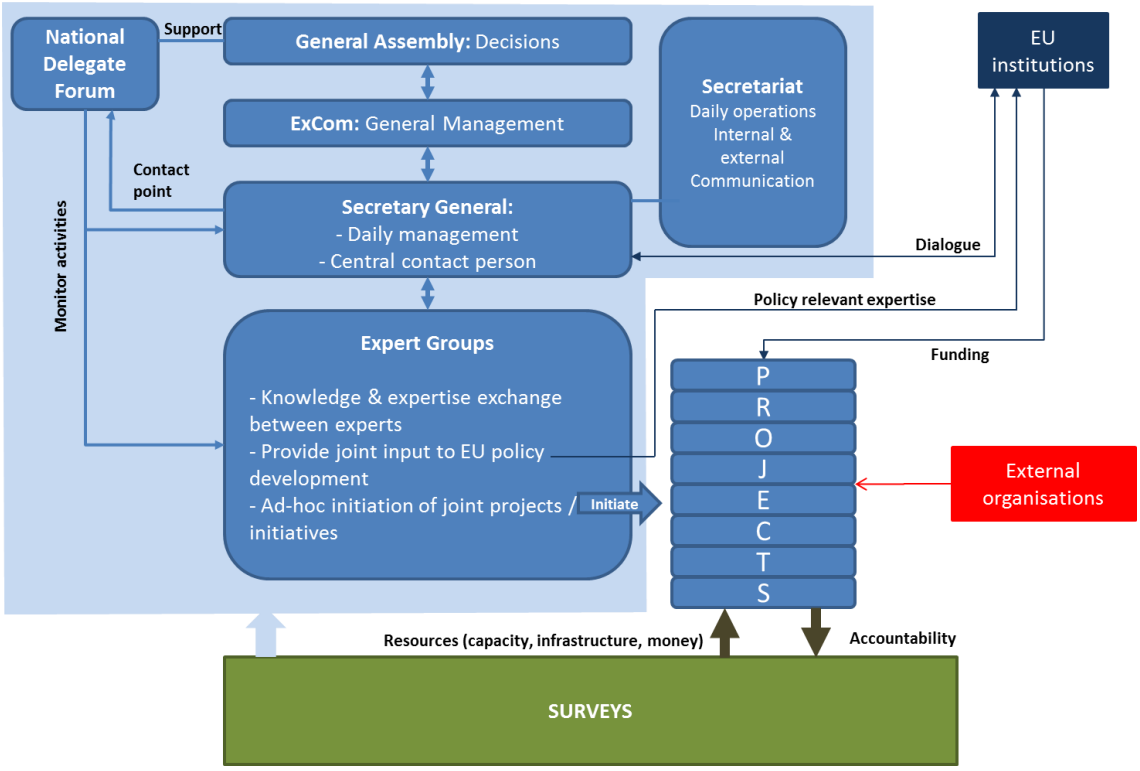


Figure 2: current EuroGeoSurveys organizational structure.

The first EGDI governance model is dubbed the "Intermediate model" (figure 2), as it could be used as a steering model in the period between the end of the EGDI-Scope project and the full-scale implementation of EGDI.

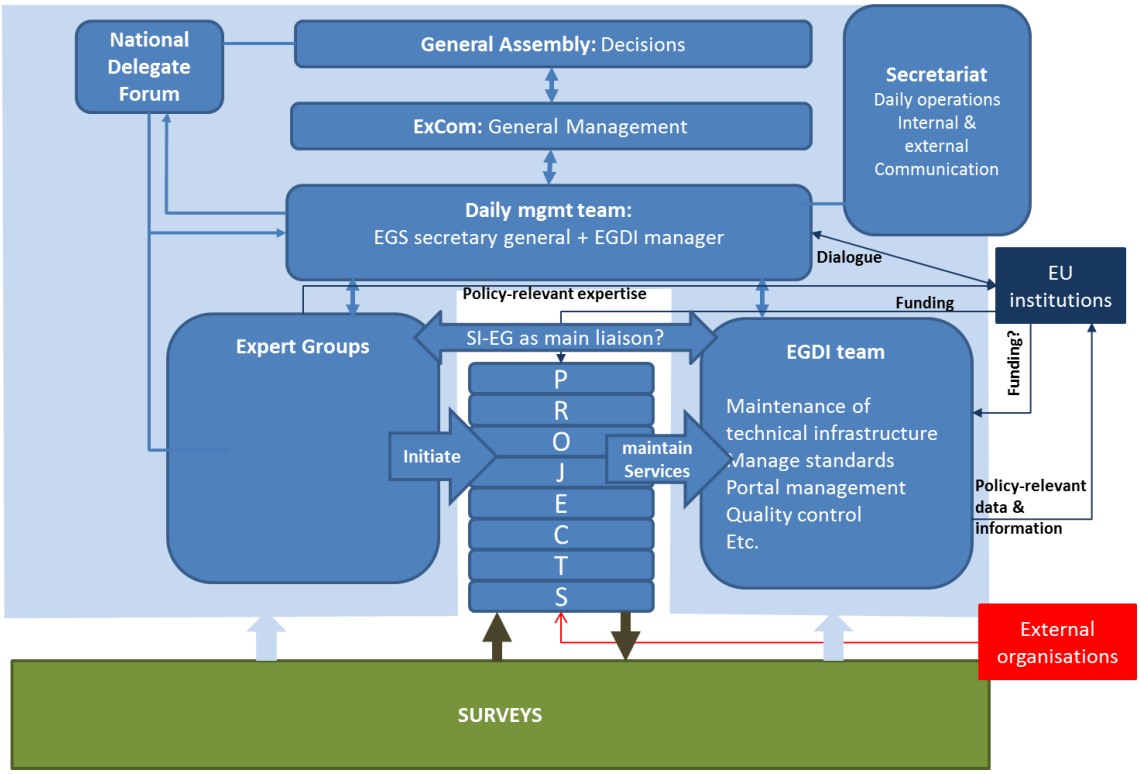


Figure 3: organizational structure of the "Intermediate" model

It sets up EGDI organization and governance as part of the current EGS organization, but with a separate mandate and budget compared to the existing EGS organisational elements.

- Decision making (General Assembly) and daily management (ExCom) bodies are made responsible for both EGS operations and operation of the EGDI.
- EGDI is managed by a separate EGDI manager, who:
    - Operates on an equal footing with the EGS Secretary General;
    - With the EGS Secretary General forms a daily management team;
    - Has his/her own tasks, responsibilities, budget, and staff;
    - Is elected and hired similar to the position of secretary general;
- Rules and procedures are put in place to ensure transfer of datasets developed within projects to EGDI, and to ensure commitment of EGS members to maintain datasets;
- The EGS Spatial Information Expert Group is included in this model as a possible liaison between EGDI and other EGS Expert Groups, who initiate many of the projects in which EGDI datasets are developed.

The second EGDI organizational model is dubbed "separate legal entity model" (figure 3).

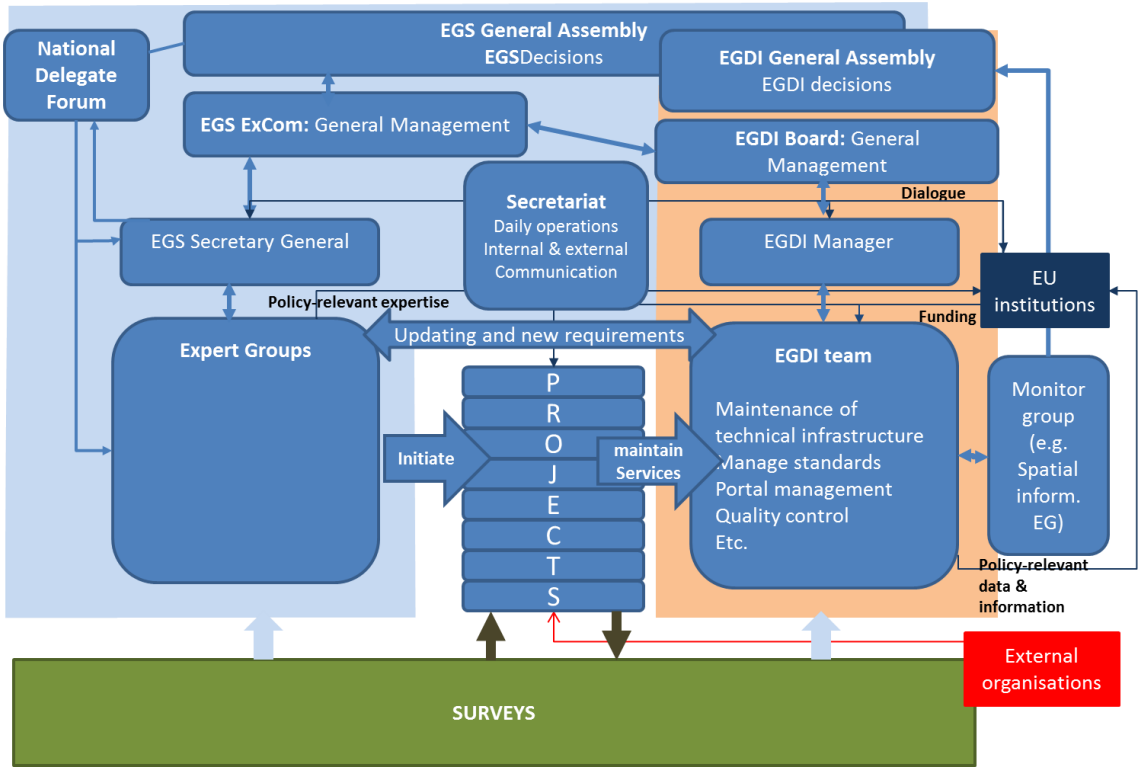


Figure 4: Structure of the separate legal entity model

In this model, the EGDI organization is set up as a legal entity separate from the current EGS structure. This model is suitable at a later stage than the "Intermediate" model, when the EGDI is fully implemented and substantial resources have become available. Characteristics of this model are:

- The EGS organisation remains largely as-is;
- The model allows individual organisations to be member of EGS, but not of EGDI, and vice-versa;
- EGDI and EGS have separate decision making bodies (although members of the EGDI General Assembly will likely be a subset of the EGS General assembly, and the EGDI board could be represented on the EGS board as well);
- The link between projects and EGDI is similar as in the intermediate model, but a direct relation between individual expert groups and EGDI is indicated;
- An EGDI "Monitor Group" is included as advisory and support group to the EGDI General Assembly. This role could be fulfilled by the current Spatial Information Expert Group.

Recommendations

- In order to keep momentum, preparations for setting up the EGDI organizational structure should continue – within the EuroGeoSurveys community after the end of the EGDI-Scope project.
- Elements that should be put in place as quickly as possible include EGDI leadership; policies and procedures on ensuring that datasets produced in ongoing and future projects are transferred to EGDI as soon as it is implemented; policies and procedures on jointly engaging in such future projects.
- Choices should be made on the organisational model (or possibly for different models at different points in time), and drafting of statutes (changes / additions to EGS statutes and/or separate statues for the EGDI organization) should start (possibly in context of the EGS Task Force on Governance).

4.5 Legal bodies or permanent infrastructures for the EGDI

In Chapter 5 of Deliverable 5.3, a number of legal frameworks for the EGDI organization are discussed in detail. These are:

- European Research Infrastructure Consortium (ERIC)
- European Economic Interest Grouping (EEIG)
- European Grouping for Territorial Cooperation (EGTC)
- Non-profit organization (NPO)

The analysis of each model includes a general description of the model; the steps required to set up the organization; items that have to be included in the statutes; the internal structure of the legal framework (including bodies that must at least be present); Liability issues; rules on VAT; and applicable law.

Recommendations

- A formal evaluation of, and choice for, one (if any) of the described models has not yet been made within the EGDI-scope project, as such a choice should involve all the foreseen members of the EGDI infrastructure at the appropriate decision making level. This should be done as quickly as possible after the end of the EGDI-Scope project, taking all other legal and organisational aspects discussed in Work package 5 into account.

4.6 Governance aspects of financial models

The final chapter of Deliverable 5.3 looks at potential sources of funding and resources for the EGDI, and their impact on EGDI governance. Identified sources include:

- In kind capacity from EGDI member organisations
- Cash contributions from EGDI member organisations (e.g. membership fees)
- Budgets from running projects
- Budgets from future projects
- Dedicated EU project or programme funding for EGDI implementation
- Funding from public-public partnership programmes (ERA-NET / Article 185)
- Funding by Industry

In reality, funding and resourcing of EGDI operations will be derived from mixed sources.

Recommendations

- EGDI should take boundary conditions imposed by (potential) sources of funding and resources into account in the organizational framework.
- In particular, EGDI should look into possible organisational arrangements that would facilitate (direct or indirect) participation of all EGDI members in contractual activities (e.g. EU projects) at minimal administrative burden.