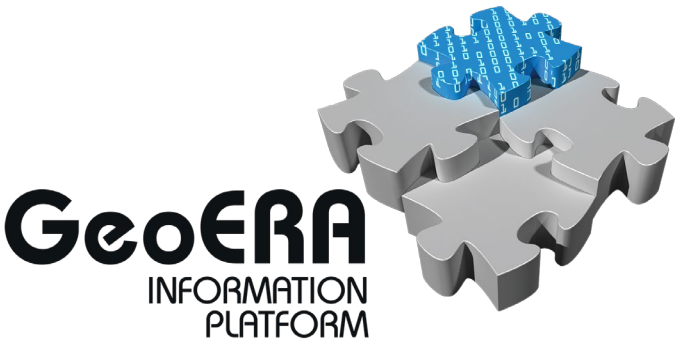

Deliverable 2.1.2

A data delivery plan (M27) describing which data sets the different GSPs plan to finally deliver to the GIP.

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Version: 31-10-2020

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	D2.1.2	
Dissemination level	Public	
Deliverable name	A data delivery plan (M27) describing which data sets the different GSPs plan to finally deliver to the GIP.	
Work package	WP2, User Requirements	
Lead WP/Deliverable beneficiary	David García Moreno	
Deliverable status		
Submitted (Author(s))	19/10/2020	Margarita P. Sanabria Pabón, Romain Darnault, James Trench, Trevor Alcorn
Verified (WP leader)	28/10/2020	David García Moreno
Approved (Coordinator)	31/10/2020	Jørgen Tulstrup

GENERAL INTRODUCTION

The GeoERA Information Platform project (GIP-P) supports the 14 geoscientific projects (GSPs) of GeoERA in organising and disseminating the geoinformation generated in their frameworks. The GIP-P is entitled to manage the data produced by each GeoERA project by archiving and making them available to citizens, researches and/or stakeholders. This will be achieved by extending the current European Geological Data Infrastructure (EGDI).

The different geoscientific projects deal with multiple aspects of geosciences in the fields of groundwater, raw materials, and geo-energy. These projects will thus generate a variety of products, which will require specific functionalities to be developed to store, display, and share them appropriately. Hence, the GIP-P must have a good understanding of the products that each project will generate, and the functionalities required to display them correctly. That is assured by Work Package 2 (WP2), which coordinates the interactions between the various GeoERA projects and the GIP-P.

EXECUTIVE REPORT SUMMARY

The present report is the second deliverable from Task 2.1. The objectives of this task are to facilitate the communication between the GSPs and the GIP-P, and to follow up of the data production (harmonisation, standardization, etc.) and data delivery.

Deliverable D2.1.2 provides an overview of the final datatypes (formats, way of delivery, etc.) that each GSP will submit to EGDI, indicating when each dataset will be ready for testing and the date of their final submission. Note that all the dates provide in this report are approximative and may be subject to modifications.

Some delivery dates are after June 2021 which is the original end of all GeoERA projects. At the time of writing there is, however, an expectation that the GeoERA programme will be prolonged to the end of October 2021. A final permit from the EC for this is expected in early December 2020. Should the prolongation not be granted we will need to change the delivery dates that are currently set to after June 2021 in a dialogue with the respective GSPs.

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DEFINITIONS

Attributes: information typically stored in the spatial data. Attributes usually consist of a series of parameters providing information about the objects, layers, etc. mapped in GIS. In the present report, we consider these as part of the spatial data that they describe.

Functionality: the range of operations that can be run on a computer or other electronic system.

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

Geological model: A digital representation of portions of the earth's crust based on geophysical and geological observations.

Geomanifestation: specific expressions of geological processes (e.g., springs, earthquakes, etc.)

Product: any deliverable generated by a GeoERA project that will be available via EGDI. Projects will deliver 4 types of products:

1. **Spatial data:** data concerning phenomena implicitly or explicitly associated with a location within Earth. These typically are:
    - **2D, 2.5D and 3D GIS data:** shapefiles, GeoPackages, GeoTiffs, ASCII grids, etc.
    - **Geographically localized 3D models**
    - **Open Geospatial Consortium (OGC) Web services**: services defined by the OGC, allowing all kinds of geospatial functionality, e.g., WMS, WFS, ATOM. They include services for data access, data display and data processing.
2. **Non-spatial data**: documents (PDFs, text files, etc.), photos/images (JPGs, PDFs, etc.), datasets (TXT, CVS, etc.), URL (DOI, etc.), etc. These data can or cannot be linked to spatial data.
3. **Metadata:** data that provides information about spatial and non-spatial data (e.g., the purpose of the data, time of creation, authors, etc.)
4. **Project vocabulary:** collections of terms with short descriptions, bibliographic citations and links to unstructured web contents used to define scientific parameters and concepts.

ABBREVIATIONS

3DGEO-EU: 3D geomodelling for Europe.

GARAH: Geological Analysis and Resource Assessment of selected Hydrocarbon systems.

GeoConnect³d: Cross-border, cross-thematic multiscale framework for combining geological models and data for resource appraisal and policy support.

CSW: Catalogue Service for the Web

DOI: Digital Object identifier

European FDB: European Fault Database

EGDI: European Geological Data Infrastructure

EuroLithos: European Ornamental stone resources

FRAME: Forecasting and Assessing Europe's Strategic Raw Materials needs

GIP-P: GeoERA Information Platform Project

GIS: Geographic Information System

GSO: Geological Survey Organization

GSPs: Geoscientific projects within GeoERA

GW: Groundwater

HIKE: Hazard and Impact Knowledge for Europe.

HotLime: Mapping and Assessment of Geothermal Plays in Deep Carbonate Rocks – Cross-domain Implications and Impacts

HOVER: Hydrological processes and Geological settings over Europe controlling dissolved geogenic and anthropogenic elements in groundwater of relevance to human health and the status of dependent ecosystems.

KSP: (HIKE) Knowledge SharePoint

MiCKA: EGDI software for (spatial data/services) metadata management.

MINDeSEA: Seabed Mineral Deposits in European Seas: Metallogeny and Geological Potential for Strategic and Critical Raw Materials.

MINTELL4EU: Mineral Intelligence for Europe.

MUSE: Managing Urban Shallow Geothermal Energy.

OGC: Open Geospatial Consortium

PM: project month

RESOURCE: Resources of groundwater harmonized at cross-border and pan- European scale.

TACTIC: Tools for Assessment of Climate change Impact on groundwater and adaptation Strategies.

UNFC: United Nations Framework Classification for Resources

VoGERA: Vulnerability of Shallow Groundwater Resources to Deep Subsurface Energy-Related Activities.

WCS: Web Coverage Service

WFS: Web Feature Service

WMS: Web Map Service

WP: work package

1 INTRODUCTION

The GeoERA program consists of 14 geoscientific projects (GSPs), which are grouped in 3 different geological themes (Groundwater, Raw Materials and Geo-energy). The outputs produced by the geoscientific projects are managed by the information platform project (GIP-P). The GIP-P is entitled to extend the European Geological Data Infrastructure (EGDI) to accommodate the new data generated by the various GSPs to share them with the scientific community and general public. The GIP-P also provides support on how to produce harmonised and standardized data following European regulations.

The present deliverable provides information on how and when the data will be uploaded to EGDI by the different GSPs. The report is organised in 14 sections (i.e., one per GSP), containing the individual delivery plan of each project (see chapter 2). This report also has an annex (Annex A) attached, which furnishes the latest information on the final datatypes (formats, etc.) that each GSP will deliver to EGDI. Annex A is therefore an update of the information provided in deliverable D2.2.2.

The information presented in this manuscript was gathered between March and September 2020 from:

- Feedbacks from the different GIP-P WPs on previous WP2 deliverables.
- Information exchanged between the GIP-P and the GSPs during a series of conference calls held between April and June 2020. These conference calls were organised by the GIP-P and attended by representatives and project leaders of all GSPs, as well as by representatives of GIP-P WPs 1, 2, 3, 4, 6, 7 and 8.
- Information exchanged by email between the GIP-P and each GSP since March 2020.
- Specific feedbacks provided by WP4, WP6, WP7 and WP8 on the minimum requirements necessary to describe and visualize/share data in EGDI.

In this report, we do not discuss the extension of EGDI the GIP-P is performing, as that has been extensively discussed in D2.1.1, D2.3.1, D2.3.2 and D2.2.2. In addition, specific information on how to prepare the data and metadata to submit them to EGDI and the procedure to upload them to EGDI can be consulted at http://egdi-public.gitlabpages.geus.dk/egdi-documentation/#/; https://czechgeologicalsurvey.github.io/MICKA-Docs/mickacookbooklite.html. The international standards recommended by the GIP-P to be applied to the spatial data are discussed in WP3 deliverables D3.1, D3.2.1, D3.2.2 and D3.3. For those projects producing data not covered by the standards (INSPIRE, etc.), information on how to create project vocabularies was provided in D4.3. The GIP-P WP4 has also published another report (D4.2) with information about the keyword thesaurus into which all keywords from the different projects will be archived. All deliverables mentioned here are available/downable at https://geoera.eu/projects/gip-p/. For specific questions and/or requiring assistance to create or upload the data, the GIP-P has also organised a support group, which can be reached by sending emails to support support@geoera.eu. All questions sent to the support team and the answers provided by them are publicly available at https://github.com/GeoEra-GIP/Project-Support-WP8/issues.

Note that all the dates provided in the individual data delivery plans included in this report are approximative and may be subject to modifications. Notably, the timeframe of GeoERA may be extended four months to palliate the effects of the Covid-19 pandemic, which may result in the modification of some deadlines.

2 INDIVIDUAL DATA DELIVERY PLANS

2.1 RESOURCE

Table 1. RESOURCE's data delivery plan: spatial data and documents.

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Pan-European map of groundwater resources (WP6)	spatial data (grid) delivered in NetCDF format, projection EPSG:3035, including attributes as described in RESOURCE D2.2	1 NetCDF 1 Word document containing Description and calculation schemes to guide the GIP-P in how to display the data in the viewer1 NetCDF Description calculation schemes	1st version of the dataset was sent to the GIP-P on **August 27th, 2020**. This first version did not include data for all participant countries. Feedback from GIP-P expected in **Sept 2020**.	Searching for maps Web page with all services Overview panel Legend with tree view/hierarchical on/off switching Export Map Download data with or without access control Identify + follow link Specific projection Create virtual logs from table data or 2.5D layers Create virtual cross section from 2.5D layers from a user define geometry	The first version of the Pan-European map is intended to test the web service created within EGDI for the data derived from RESOURCE.	*RESOURCE expects to have a complete version of this dataset by early 2021. Hence, it might be ready for submission by June 2021.*	For more information about this dataset refer to RESOURCE D2.2

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				Create simple queries and filters from the webGIS interface			
Pilot sites locations	spatial data (polygons) delivered in ESRI Shapefile format. Coordinate System EPSG:3035.	1 shapefile with linked PDFs and URL linking to a local or national database or visualization tools.	1st version of this dataset will be delivered in **Oct 2020**. Feedback from GIP-P expected in **Nov 2020**	Web page with all services Overview panel Identify + follow link download pdf		**July 1st, 2021.**	PDFs will be uploaded to EGDI document repository; shapefiles will be uploaded to EGDI spatial database.
Factsheet locations (WP5)	spatial data (points) delivered in ESRI Shapefile format. Coordinate System EPSG:3035.	1 shapefile Factsheets linked to the points.	1st version of this dataset will be delivered on **Nov 1st, 2020**	Web page for all services Search base on location Search for documents Identify & follow link Pdf download		**July 1st, 2021**	factsheets will be uploaded to EGDI document repository; shapefiles will be uploaded to EGDI spatial database.

Table 2. RESOURCE's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata from all products	Direct edition in EGDI metadata catalogue for all the products.	Metadata for Pan-European map of groundwater resources: ***early 2021***. Metadata for Pilot sites locations and Factsheet locations: ***1st July 2021***	N/A	

2.2 VoGERA

Table 3. VoGERA's data delivery plan: spatial data and documents.

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Location of pilot sites	Spatial data (polygons) delivered in ESRI Shapefile format, projection EPSG:3034, including attributes.	One ESRI Shapefile: spatial data and attributes	Delivery of test data: **Oct 2020** Feedback expected by **Nov 2020**	Interface to upload and thematize Shapefiles Web page with all services Overview panel Legend with tree view and hierarchical on/off switching		**July 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Methodological reports	6 Reports (see Annex A).	6 PDF files	Delivery of test data: **April 2021** Feedback expected by **May 2021**	Direct upload to EGDI document repository Search Documents Download data with or without access control		**July 2021**	reports will not be necessarily linked to a specific pilot site
Common tool with a methodology for characterizing the vulnerability of shallow groundwater to deep industrial activities	Several spreadsheets including formulas allowing to calculate vulnerability	1 Excel file	Delivery of test data: **June 2021** Feedback expected by **July 2021**	Direct upload to EGDI document repository Search Documents Download data with or without access control	VoGERA is waiting for an answer from GIP-P on whether to accept Excel as the delivery format for this tool.	**July 2021**	

Table 4. VoGERA's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata from all products	Direct edition in EGDI metadata catalogue.	**April 2021**		

2.3 HOVER

Table 5. HOVER's data delivery plan: spatial data and documents

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Pilot sites	Spatial data (points and polygons) delivered as GeoPackage including attributes as described in HOVER D2.2. Coordinate system: as requested by EGDI. Reports linked to pilot sites.	1 GeoPackage Several PDFs with site description and reports	1st test: **20 Dec 2020** 1st version of the dataset will be sent to the GIP-P on **Jan 2021** Feedback expected by the **Jan 2021**	Identify and follow link Links to pdf in Doc repository (Identify+follow link) Interface to upload and thematize GeoPackages interface to upload and thematise Shapefiles Create simple queries and filters from the webGIS interface Search documents (require a doc repository) Web page with all services Search based on location Searching for maps Download data+access control Download data (no access control)	Products link to all WPs so control on unique and identical info should be cross-checked Interface to upload documents in doc repository. Links to documents located in Doc Repository (note that EGDI users should be able to access this and the other reports linked to spatial data directly from EGDI webGIS portal by clicking on the polygons/lines/points defining their location).	**March 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				Legend with tree view hierarchical on/off switching Export map			
Thermal and natural mineral waters in Europe	spatial data (points that comes from a grid 1km x 1km based on https://www.eea.europa.eu/dataand-maps/data/eea-reference-grids-2) delivered as NETCDF, including attributes as described in HOVER D2.2. Coordinate system: EPSG3035-ETRS89-LAEA	A NETCDF A Codelist to be integrated in https://data.geoscience.earth/ncl/ Codelists will comprise type of water source, intended use, yield class, groundwater age classes, temperature classes, total dissolved solid classes, gas phase dominance classes. A project vocabulary for Hydrochemical Data	In Feb 2020 WP3 sent to the GIP-P (WP8, WP3 and WP6) the template used to collect the data. WP leader will provide a document with the data model. Delivery of test data that meets data preservation requirements: **Nov 30th,2020** Feedback expected by **end of Dec 2020**	Legend with tree view /hierarchical on/off switching: several legends are considered Create simple queries and filters from the webGIS interface From getfeatureinfocreation of an automatic report querying a selection of layers Web page with all services. Base map Multi-lingual legend	Instructions from GeoERA support team on how to produce a NETCDF, meeting EGDI requirements. Asked to GitHUB GIP-P support team: 1) How to cluster multiple points in one cell? 2)How to provide Ccoordinates based on the EEA grid (centre coordinates of grid cells will be provided) 2)Witch is best way to have Multilingual legends and	**April 2021**	Desired background maps to be included in HOVER webGIS: • International Hydrogeological Map of Europe 1:1.500.000 scale BGR/UNESCO, Hannover (Germany) • Geological Map of Europe (IGME) • Topographic map

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
					what information/ documents has to be provided to the GIP-P by WP3 partners? 3)Consideration of INSPIRE vocabulary and GeoSciML, GEOERA project vocabulary and codelists.		
European exposure maps of selected elements (and indicators)	Exposure maps for Fluoride and Arsenic. Indices in relation to geological context of Europe will be considered	2 GeoTIFF files, one for the Fluoride and another one for the Arsenic	1st test: Delivery of first test data: **End of Dec 2020** Feedback expected by **Jan 2021** 2nd test: Delivery of revised data **End of Feb 2021** Feedback expected by **End of March 2021**	Search based on location Download data (no access control) Overview panel Export map		**April 2021**	WP leader will provide a document with the data model.
Report on mineral and thermal waters in participating countries & Report	PDF reports	2 PDF Files	1st test: Delivery of test data: **Dec2020**	Search Documents Download data (no access control)		**April 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
European exposure maps of selected elements			Feedback expected by ***Jan* 2021**				
Conceptual models of nitrate transport in the unsaturated zone	spatial data (polygons) delivered as GeoPackage, including attributes as described in HOVER D2.2. Coordinate system: EPSG:4326 - WGS84. A report with the description of the conceptual model.	1 GeoPackage 1 PDF	1st test: Delivery of test data: 1st **Oct 2020** Feedback expected by **Nov 1st, 2020**	Search based on location Search documents Identify + follow a link: ID and follow link to PDF report. Legend with tree view /hierarchical on/off switching		**Dec 2020**	HOVER has already provided a test GeoPackage to James Passmore (GIP-P WP8)
Travel times for nitrate in the unsaturated zone	Spatial data (raster) delivered as ESRI Grid (ASCII), including values as described in HOVER D2.2. Coordinate system: EPSG:4326 - WGS84	One ESRI Grid (ASCII)	1st test: Delivery of test data**: 8th Jan 2021** Feedback expected by **1st Feb 2021**	Legend with tree view /hierarchical on/off switching Download (no access control) Multiscaling: Restrict view below European level		**March 2021**	.
Nitrate stored in the unsaturated zone	spatial data (multi-dimensional gridded data) including values as described in HOVER D2.2 Coordinate	One NetCDF or WCS	1st test: Delivery of test data: **31st August 2020** Feedback expected by **1st Oct 2020**	Legend with tree view /hierarchical on/off switching Download (no access control) Multiscaling: Restrict view		**Oct 2020**	HOVER is already working with GIP-P support to test data and find the best format for this product (direct

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	system: EPSG:4326			below European level Handling time component: slider to change time slice of netcdf			delivery vs. WCS or other service),
Database structure for storage of probably 10-15 environmental tracers (mainly isotopes)	spreadsheet file, containing chemical analyses and calculations from specific locations	Under discussion. If allow by the GIP-P, it will be an Excel file		Search based on location and keywords Web page with all services Download data+access control		**2 months before end of GeoERA**	It is still unclear in which format this product will be submitted to EGDI and how (and if) it should be accessible to the public from there.
Maps, cross sections and (potentially) 3D representations	spatial data (lines and/or polygons) defining the extents of HOVER's WP6 pilot areas (approximately 10), as well as the extents of the models potentially shown in 3D representations (1 or 2 examples?). Coordinate system: EGDI standard	1 Shapefile or GeoPackage Several JPG, PNG and PDF with cross sections and maps linked to profile lines and pilot areas/polygons (shapefile mentioned above) 3D models generate using formats and standards compatible with EGDI3D database	1st test: Delivery of test data: **A Geoscene 3D model has already been uploaded to EGDI as a test for the Funen Island**	Search based on location Searching for maps Interface to upload and thematise GeoPackage/Shapefiles Web page with all services 10 Identify +follow a link Legend with treeview/hierarchical on/off switching		**2 months before end of GeoERA**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				Handling and displaying 3D models Transparency of 3D Virtual borehole			
European Groundwater Vulnerability Map to Pollution (DRASTIC)	spatial data (raster) delivered as GeoTiFF, including values as described in HOVER D2.2. Coordinate system: EPSG: 3035-ETRS89-LAEA.	1 GeoTIF file	1st test: Delivery of test data **in early Sept**. Feedback expected by **mid-Sept**	Search based on location Web page with all services Download data (no access control) Overview panel Export map Transparency		**Dec, 2020**	Final delivery data date can be changed depending on the final decision about the extension or not of the project
European Groundwater Vulnerability INPUT DATA Maps to Pollution (DRASTIC)	Spatial data (raster) delivered as GeoTiFF, including values as described in HOVER D2.2. Coordinate system: EPSG: 3035-ETRS89-LAEA.	7 GeoTIF files	1st test: Delivery of test data: **early Sept** Feedback expected by **Sept 15th, 2020**	Download data (no access control) Overview panel Export map Transparency		**Sept 2020**	Final delivery data date can be changed depending on the final decision about the extension or not of the project
Groundwater Vulnerability Map to Pollution in Pilot Areas (DRASTIC)	Spatial data (raster) delivered as GeoTiFF, including values as described in HOVER D2.2. Coordinate system: EPSG:	One GeoTIF per pilot area (11 pilot areas in total)	1st test: Delivery of test data: **early Sept** Feedback expected by **Sept 15th, 2020**	Download data (no access control) Overview panel Export map Transparency		**April 2021**	Final delivery data date can be changed depending on the final decision about the extension or not of the project

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	3035-ETRS89-LAEA.						
Groundwater Vulnerability to Pollution INPUT DATA Maps in Pilot Areas according to DRASTIC	spatial data (raster) delivered as GeoTiFF, including values as described in HOVER D2.2. Coordinate system: EPSG: 3035-ETRS89-LAEA.	7 GeoTIF files per pilot area (11 pilot areas in total)	1st test: Delivery of test data: **early Sept** Feedback expected by ***Sept 15th, 2020***	Download data (no access control) Overview panel Export map Transparency Download data (no access control) Overview panel Export map Transparency		**Sept, 2020**	This product comprises 63 raster maps; i.e., one map per DRASTIC parameter. There are 9 pilot areas, each comprising 7 DRASTIC parameters Final delivery data date can be changed depending on the final decision about the extension or not of the project
Groundwater Vulnerability Map to Pollution in Pilot Areas (COP)	spatial data (raster) delivered as GeoTiFF, including values as described in HOVER D2.2. Coordinate system: EPSG: 3035-ETRS89-LAEA.	One GeoTIF per pilot area (5 pilot areas in total)	1st test: Delivery of test data: **early Sept** Feedback expected by ***Sept 15th, 2020***	Download data (no access control) Overview panel Export map Transparency		**Dec 2020**	Final delivery data date can be changed depending on the final decision about the extension or not of the project
Groundwater Vulnerability to Pollution INPUT DATA Maps in Pilot Areas according to COP	spatial data (raster) delivered as GeoTiFF, including values as described in HOVER D2.2. Coordinate system: EPSG:	3 GeoTIF files per pilot area (5 pilot areas in total)	1st test: Delivery of test data: **early Sept** Feedback expected by ***Sept 15th, 2020***	Download data (no access control) Overview panel Export map Transparency		**Sept 2020**	This product consists of 15 raster maps, i.e., one map per COP parameter. There are 5 pilot areas, each one with

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	3035-ETRS89-LAEA.						3 COP parameters Final delivery data date can be changed depending on the final decision about the extension or not of the project
Report I	Comparison of internationally commonly applied index methodologies for assessing the vulnerability of the upper aquifer to pollution	One PDF		Search Documents Download data (no access control)		**submitted**	
Report II (WP7)	Compilation of the examination results of the data sets of input data for the respective methodologies assessing vulnerability of the upper aquifer to pollution	One PDF	**No need for further test or feedback for Report II, III and IV. PDF upload already tested in Report I**	Search Documents Download data (no access control)		**Sept 2020**	Final delivery data date can be changed depending on the final decision about the extension or not of the project
Report III (WP7)	Vulnerability summary in Pilot Areas: pilot description and 2D schematic cross section in the assessment of	One PDF		Search Documents Download data (no access control)		***Dec 2020***	Final delivery data date can be changed depending on the final decision about the extension or not of the project

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	aquifer vulnerability						
Report IV (WP7)	Vulnerability assessment of the upper aquifer to pollution	One PDF		Search Documents Download data (no access control)		**Dec 2020**	Final delivery data date can be changed depending on the final decision about the extension or not of the project
European map that synthesizes the state of knowledge of each Member State on the presence of selected Emerging Organic Compounds in groundwater	Choropleth map showing the number of studies addressing emerging compounds in groundwater carried out since 2012 by Member States.	Pictures (JPG)	1st test: Delivery of test data: **mid-Sept 2020** Feedback expected by **end of Sept**	Export picture		**Sept 2020**	
Number of studies and Total number of GW sites selected in D8.1 – this is Report I of WP8	spatial data (polygons) delivered as ESRI shapefile. Coordinate system: EPSG 3857 and a report (D8.1a)	2 ESRI shapefile 1 PDF (D8.1)	1st test: Delivery of test data: **May 25th, 2020** Feedback expected by **end of Sept**	Select and show Carbamazepine or Caffeine number of GW sites per country. To colour each country's polygon depending on the number of GW sites sampled		**Sept 2020**	These two shapefiles where send to the GIP-P WP6 and WP8 the 25/05/2020.
Report II (WP8)	Survey of research undertaken by European geoscience partners of GeoERA on contaminants of emerging	One PDF				**Oct 2020**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	concern in groundwater (D8.1b)						
Report III (WP8)		One PDF				**Oct 2020**	The date for the final delivery may be changed if the project is extended
Report IV (WP8)	European sampling and interlaboratory testing: Report describing new sampling analyses and interlaboratory tests directed towards potential hotspots for emerging contaminants transport (D8.3)	One PDF				**May 2021**	The date for the final delivery may be changed if the project is extended
Report V (WP8)	Development of monitoring recommendations: Concrete proposal and design for an EU wide monitoring program customized to emerging pollutants of high concern (D8.5)	One PDF				**May 2021**	The date for the final delivery may be changed if the project is extended

Table 6. HOVER's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata of all the products	Direct edition in EGDI metadata catalogue	The metadata of each dataset and document will be edited around the same dates expected for the final version delivery		

2.4 TACTIC

Table 7. TACTIC's data delivery plan: spatial data and documents

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Pilot study reports	spatial data (polygons) delivered in GeoPackage format. Already displayed in TACTIC viewer. Projection as requested by EGDI	1 GeoPackage Several PDF	1st test: Delivery of test data: ***Oct 1s, 2020*** Feedback expected: **when available**	Interface to upload and thematize shapefiles and GeoPackages Search System Download data without access control		**The final delivery date for all the products of the project depends on whether the project is extended or not.** **In any case, the final version of the products will be ready to upload 1-2 months before the end of the project.**	Attributes are simple text and numeric attributes + a link a PDF report located in the document repository The 1st test data will include links to the pilot study site's descriptions (a PDF file stored in the document repository)
GW table and changes in Europe (WP3)	spatial data (raster) delivered in NetCDF format. Projection: EPSG:4326 (WGS84). Attributes as described in TACTIC D2.2	1 NetCDF	1st test: Delivery of test data: ***Oct 1st, 2020*** Feedback expected by **when available**	Search based on location Interface to upload and thematise NetCDF. Web page with all services			

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Water balance changes in Europe (WP3)	spatial data (Point or polygons) delivered in GeoPackage format. Projection: EPSG:4326 (WGS84). Attributes as described in TACTIC D2.2	1 GeoPackage PDFs, JPGs and TXT	1st test: Delivery of test data: ***15th Oct 2020*** Feedback expected by **when available**	Download data without access control Identify + follow link overview panel Legend with tree view / hierarchical on/off switching Export map Multiscaling: Reference scale 1:1,500.000			

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Pan-European net precipitation maps (WP4)	spatial data (rasters cell size 1-5km) delivered in NetCDF format. Projection: EPSG:3857 and 4326. Attributes as described in TACTIC D2.2	1 NetCDF	1st test: Delivery of test data: ***15th Oct 2020*** Feedback expected by **when available**	Search based on location Web page with all services Download data without access control overview panel Export map Transparency Multiscaling: Reference scale 1:1,500.000			

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Recharge values at selected locations and Schematics showing time variant recharge values and uncertainty analysis over selected period (Dynamic) and Statistical values at selected points	spatial data (points: with recharge values, name, description, and coordinates) delivered in GeoPackage format. Linked to the points are: Images (showing time variant recharge values) times series (Statistical values) PDFs or JPGs the two products). Projection: EPSG: 3857 and 4326. Attributes as described in TACTIC D2.2	1 GeoPackage Images linked to the points (showing time variant recharge values) in PDF or JPGS Time series linked to the points (Statistical values) in PDF or JPGS	1st test: Delivery of test data: ***15th Oct 2020*** Feedback expected by **when available**	Search based on location Web page with all services Export map Multiscaling Download data without access control Identify + follow link			

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Groundwater monthly average trends values and stabilities at points over two periods (1976-2019 and 1996-2019) (Static)	spatial data (points: with GW trends values and stabilities for raw and denoised data, name, description, and coordinates) per period delivered in GeoPackage format. Linked to the points: Images (PDF). Projection: EPSG: 3857 and 4326. Attributes as described in TACTIC D2.2	1 GeoPackage Images associated to the 2 periods (trends values and stabilities of trends for raw and denoised data)	1st test: Delivery of test data: ***15th Sept 2020*** Feedback expected by **when available**	Search based on location Export map Identify + follow link			
Map displaying aquifer vulnerability to climate change	spatial data (raster) delivered in NetCDF format. Projection: EPSG:3857 and 4326. Attributes as described in TACTIC D2.2	1 NetCDF	1st test: Delivery of test data: **Unknown** Feedback expected by	Search based on location Web page with all services Overview panel Transparency			It will most likely be delivered as NetCDF. However, there is a possibility that this change and TACTIC deliver it as GeoPackage.

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Geological 3D model from Emilia Romana (WP5)	3D Geological model 3D model at regional/local scale to visualize the geometry and lithological characteristic of the coastal aquifer.	ASCII format	1st test: Delivery of test data: **Dec 2019** Feedback expected by **GIP-P WP6 has already contact data provider**	Handling and displaying 3D models Virtual cross section			Already delivered and uploaded to the EGDI3D database.
Pilots description and assessment report for sea/salt-water intrusion (WP5)	spatial data (polygons) delivered in ESRI Shapefile format Projection: 4326. Attributes as described in TACTIC D2.2	1 shapefile PDF linked to the polygons	N/A	Search based on location Search documents Download data without access control Legend with tree view /hierarchical on/off switching Export map			

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Journal paper (WP5)		1 PDF	N/A	Search documents Download data without access control			For journal papers, if the paper is not submitted to an opensource journal, it is best to provide the DOI to EGDI instead of the PDF to avoid copyright issues
Report from all the WP5 tasks	Technical note of the method to assess seawater intrusion & Guideline for WP5	1 PDF	uploading PDF tool has been tested already. No further test needed.				
Pilots description and assessment report for adaptation (WP6)	spatial data (polygons) delivered in ESRI Shapefile format Projection: 4326. Attributes as described in TACTIC D2.2	1 shapefile PDFs linked to the polygons	N/A	Search based on location Search documents Download data without access control Legend with tree view /hierarchical on/off switching Export map			

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Journal paper (WP6)		1 PDF	uploading PDF tool has been tested. No further test needed	Search documents Download data without access control			For journal papers, if the paper is not submitted to an opensource journal, it is best to provide the DOI to EGDI instead of the PDF to avoid copyright issues
Report from all the WP6 tasks	Development of climate change projections and adaptation scenarios & Guideline for WP6	1 PDF	uploading PDF tool has been tested. No further test needed.				

Table 8. TACTIC's data delivery plan: spatial data delivered as services (e.g., WFS, WMS)

Dataset	Service URL and description of the data included in it.	Time interval – testing	Functionality to be tested	Other feedbacks required	Date of final version of services	Comments
On-line dynamic sensor measurements	Spatial data delivered through services according to a common standard developed by Projection as requested by EGDI, SGU and GEUS.	work conducted in close collaboration with GIP-P's WP6. Test performed directly by GEUS. No need to specify test date or feedback.	Web page with all the services Download data without access control		GEUS is currently setting the services.	SGU and GEUS are working on the service(s) and visualization GIP-P WP6 coordinator is aware of the implementation

	See: https://egditest01.geus.dk/egdi/?mapname=gip_preview#baslay=baseMapGEUS&optlay=&extent=1563090,2688550,6268170,4857300&layers=measuring_stations					

Table 9. TACTIC's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
All the product except 3D model from Emilia Romana	Direct edition in EGDI metadata catalogue	The metadata will be delivered with the final data. As the latter depends on whether the project is extended or not, metadata will be provided 1-2 months before the projects ends		
Geological 3D model from Emilia Romana	Harvesting	Already delivered. URL for Geological 3D model from Emilia Romana: http://geoportale.regione.emilia-romagna.it/rer_csw/	The GIP-P must check whether metadata from the Emilia Romana 3D Geological has been harvested correctly and report to TACTIC if there is any harvesting problem.	

2.5 EuroLithos

Table 10. EuroLithos's data delivery plan: spatial data and documents

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Ornamental stone directory	Attributes of ornamental stone types: Unique stone type, lithology, descriptions (text), physical properties (tables), mineral content (tables), geochemical analyses (tables), links, photos and microphotos.	1 excel file linked to spatial data and with links to tables and images. Tables linked to excel file Jpeg files and DOI: documents and papers with extra information about each data entry	1st test: Delivery of test data: **Nov 2020** Feedback expected by **Jan 2021** (2nd test: Delivery of revised data: **May 2021** Feedback expected by **July 2021**	Interface to spatial data Search system Web page with all services Download data with or without access control Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**July 2021**	Assistance required for the creation of standardized tables (some should be common for several projects)
Ornamental stone repository	Reports generated by the project	PDF-files	Delivery of test data: Jan 2021 Feedback expected by **March 2021** (2nd test: Delivery of revised	availability	None	**July 2021**	

			data: **May 2021** Feedback expected by **July 2021**				

Table 11. EUROLITHOS's data delivery plan: spatial data delivered as services (e.g., WFS, WMS)

Dataset	Service URL and description of the data included in it.	List of files together with the web service	Time interval – testing	Functionality to be tested	Other feedbacks required	Date of final version of services	Comments
Ornamental stone resources in Europe.	Harvest from the minerals4EU platform	*vocabulary schema defining commodity-concept, mineral occurrence concept, Mining activity concept, Mine status concept, Unique stone list concept, if possible, stone colour concept*	1st test: URL with test data will be available for harvesting and testing: **Nov 2020** Feedback expected by **Jan 2021** 2nd test: Availability of updated data for harvesting and perform second testing: **May 2021** Feedback expected by **July 2021**	*Search based on location* *Web page with all services* *Download data (no access control)* *Identify + follow link* *overview panel* *Legend with tree view / hierarchical on/off switching* *Export map* *Multiscaling* *Create simple queries and filters from the webGIS interface*	*Validity of web services, attributes and vocabularies according to international standards.* *Links to vocabulary and visualization in EGDI webGIS portal* *Interface to upload documents in doc repository.* *Links to documents located in Doc Repository*	**Oct 2021**	

				From getfeatureinfo creation of an automatic report querying a selection of layers			

Table 12. EUROLITHOS's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata from all spatial data	harvested using minerals4EU metadata catalogue: commodity-concept, mineral occurrence concept, Mining activity concept, Mine status concept	**Jan 2021**		

2.6 FRAME

Table 13. FRAME's data delivery plan: spatial data and documents

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
REE mineral occurrences /deposits spatial distribution (prototype)	Simplified spatial distribution of REE occurrences in Europe, and respective genetic types. Points delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: DOI:10.3390/MIN10040365 URL: https://www.mdpi.com/694672 DOI:10.1016/j.oregeorev.2015.09.019 DOI:10.1016/j.gexplo.2012.12.007 https://doi.org/10.5194/egusphere-egu2020-7931 http://resource.sgu.se/produkter/rm/rm146-rapport.pdf www.frame.lneg.pt/wp-content/uploads/2020/06/FRAME-Newsletter-Issue-6.pdf	Delivery of test data: **June 23rd, 2020** Feedback expected by **Sept 30th, 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system. For example, search commodities in Kiruna or kvanefjeld Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface. Simple filter based on commodities or simple filter by genetic type (e.g. REE associated with alkaline, REE associated with iron oxide apatite). From getfeatureinfo creation of an automatic report querying		**April 30th 2021**	This is part of FRAME product #1 - Critical and Strategic Minerals Map of Europe: mineral occurrences/deposits spatial distribution on land and the marine environment (see Annex A)

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				a selection of layers.			
Energy Critical Elements Map of Europe	Spatial distribution of occurrences of Co, Li and graphite in Europe and respective genetic types. Points delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: This is not ready yet, but will be delivered when the dataset is finished and updated	Delivery of test data: **Sept 30th, 2020** Feedback expected by **Oct 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system. Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface. Simple filter based on commodities (e.g. Graphite, Co, Li) or simple filter by genetic type (e.g. lithium associated with pegmatite-granite, lithium associated with brine etc.) From getfeatureinfo creation of an automatic report querying a selection of layers. When you have a selection by		**April 30th, 2021**.	This is part of FRAME product #1 - Critical and Strategic Minerals Map of Europe: mineral occurrences/deposits spatial distribution on land and the marine environment (see Annex A)

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				(e.g. commodities, genetic types, countries etc.) using the filter above, an automatic short report will be created according to the selected attributes			
REE metallogenic map of Europe (prototype)	Overview map showing the approximate extent of the key REE metallogenic areas in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: DOI: 10.3390/MIN10040365 URL: https://www.mdpi.com/694672 DOI: 10.1016/j.oregeorev.2015.09.019 DOI: 10.1016/j.gexplo.2012.12.007 https://doi.org/10.5194/egusphere-egu2020-7931 http://resource.sgu.se/produkter/rm/rm146-rapport.pdf www.frame.lneg.pt/wp-content/uploads/2020/06/FRAME-	Delivery of test data: **June 23rd, 2020** Feedback expected by **Sept 30th, 2020.**	Interface to upload and thematize shapefiles and GeoPackages Search system: Examples: Search by commodity name, countries, type, areas Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface. Simple filter based on commodities or simple filter by genetic type (e.g. REE associated with alkaline, REE		**April 30th 2021**	This is part of FRAME product #2 - Critical and Strategic Minerals Map of Europe: Metallogenetic maps (see Annex A)

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
		Newsletter-Issue-6.pdf		associated with iron oxide apatite, etc.) From getfeatureinfo creation of an automatic report querying a selection of layers. Example: make an automatic report on the rare earth elements associated to alkaline type deposit and produce a report contain the number of deposits in each country and total number, grade etc if exits this data in attribute tables			
Lithium metallogenic map of Europe	Overview map showing the approximate extent of the key Lithium metallogenic areas in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: DOI: https://doi.org/10.1016/j.oregeorev.2019.04.015 DOI: https://doi.org/10.2138/gselements.16.4.259 http://dx.doi.org/10.2138/gselements.16.4.259	Delivery of test data: **Nov 30th, 2020** Feedback expected by **Dec, 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link		**April 30th 2021**	Part of FRAME product #2 - Critical and Strategic Minerals Map of Europe: Metallogenetic maps (see Annex A)

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
		http://dx.doi.org/10.1016/B978-0-12-801417-2.00001-3 https://doi.org/10.5194/egusphere-egu2020-5950		Create simple queries and filters from the webGIS interface, e.g., Genetic_ty=all Genetic_ty=Pegmatite-aplite Genetic_ty=Sedimentary-hydrothermal Genetic_ty=GreisenGenetic_ty=Rare metal granite			
Cobalt metallogenic map of Europe	Overview map showing the approximate extent of the key Cobalt metallogenic areas in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: This is not ready yet, but will be delivered when the dataset is finished and updated	Delivery of test data: **Nov 30th, 2020** Feedback expected by **Dec 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system: Examples: Search by name, countries, type, areas Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an		**April 30th 2021**	Part of FRAME product #2 - Critical and Strategic Minerals Map of Europe: Metallogenetic maps (see Annex A)

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				automatic report querying a selection of layers.			
Graphite metallogenic map of Europe	Overview map showing the approximate extent of the key Graphite metallogenic areas in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: This is not ready yet, but will be delivered when the dataset is finished and updated	Delivery of test data: **Nov 30th, 2020** Feedback expected by **Dec 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system: Examples: Search by name, countries, type, areas Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers.		**April 30th 2021**	Part of FRAME product #2 - Critical and Strategic Minerals Map of Europe: Metallogenetic maps (see Annex A)
Phosphor metallogenic map of Europe	Distribution of P occurrences and deposits in Europe, with their respective genetic types and ages.	One GeoPackage: spatial data and attributes. PDF files and DOI: News on Phosphate deposits and sustainability (http://www.fram	Delivery of test data: **Nov 30th, 2020** Feedback expected by **Dec 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services		**April 30th 2021**	Part of FRAME product #2 - Critical and Strategic Minerals Map of Europe: Metallogenetic maps, listed in table 17 from

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	Points and polygons delivered in GeoPackage format, including attributes and layers to be displayed.	e.lneg.pt/#News/Events). Newsletter: http://www.frame.lneg.pt/wp-content/uploads/2019/06/FRAME-Newsletter-Issue-3.pdf		Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface – one usually interesting type of query is distance based geocentric query for points and polygon selection			GIP-P D2.2.2 (see Annex A)
Niobium metallogenic map of Europe (prototype)	Overview map showing the approximate extent of the key Niobium metallogenic areas in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: These are not complete now, but will be ready when the delivery is due	Delivery of test data: **Nov 30th, 2020** Feedback expected by **Dec 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system: Examples: Search by name, countries, type, areas Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface		**April 30th 2021**	Part of FRAME product #2 - Critical and Strategic Minerals Map of Europe: Metallogenetic maps (see Annex A)

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				From getfeatureinfo creation of an automatic report querying a selection of layers.			
Tantalum metallogenic map of Europe (prototype)	Overview map showing the approximate extent of the key Tantalum metallogenic areas in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: These are not ready now but will be ready when delivery is due.	Delivery of test data: **Nov 30th, 2020** Feedback expected by **Dec 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system: Examples: Search by name, countries, type, areas Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers.		**April 30th 2021**	Part of FRAME product #2 - Critical and Strategic Minerals Map of Europe: Metallogenetic maps (see Annex A)
Rare Earth elements CBA favourability map of Europe	Cell based associations (CBA) prospectivity map for REE in Europe.	One GeoPackage: spatial data and attributes. PDF files and DOI: This is not ready	Delivery of test data: **Nov 30th, 2020**	Interface to upload and thematize shapefiles and GeoPackages		**April 30th 2021**	Part of FRAME product #3 - Critical and Strategic Minerals Map of Europe:

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	yet, but will be delivered when the dataset is finished and updated	Feedback expected by **Dec 2020.**	Search system. Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface. Examples: "Score" >= Or select area with high favourability or select area with very high favourability From getfeatureinfo creation of an automatic report querying a selection of layers			Potential/ prospectivity maps (see Annex A)
Niobium CBA favourability map of Europe	Cell based associations (CBA) prospectivity map for niobium in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: This is not ready yet, but will be delivered when the dataset is finished and updated	Delivery of test data: **Nov 30th, 2020** Feedback expected by **Dec 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system. Download data with or without access control Identify + follow link		**April 30th 2021**	Part of FRAME product #3 - Critical and Strategic Minerals Map of Europe: Potential/ prospectivity maps (see Annex A)

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				Create simple queries and filters from the webGIS interface. Examples: "Score" >= Or select area with high favourability or select area with very high favourability From getfeatureinfo creation of an automatic report querying a selection of layers			
Tantalum CBA favourability map of Europe	Cell based associations (CBA) prospectivity map for tantalum in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: This is not ready yet, but will be delivered when the dataset is finished and updated	Delivery of test data: **Nov 30th, 2020** Feedback expected by **Dec 2020.**	Interface to upload and thematize shapefiles and GeoPackages Search system. Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying		**April 30th 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				a selection of layers			
Phosphor CBA favourability map of Europe	Cell based associations (CBA) prospectivity map for phosphor in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: This is not ready yet, but will be delivered when the dataset is finished and updated	Delivery of test data: **Nov 30th, 2020** Feedback expected by **Dec 2020**.	Interface to upload and thematize shapefiles and GeoPackages Search system. Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface: Examples From getfeatureinfo creation of an automatic report querying a selection of layers		**April 30th 2021**	Part of FRAME product #3 - Critical and Strategic Minerals Map of Europe: Potential/ prospectivity maps (see Annex A)
Cobalt CBA favourability map of Europe (prototype)	Cell based associations (CBA) prospectivity map for cobalt in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed	One GeoPackage: spatial data and attributes. PDF files and DOI: http://doi.org/10.1016/j.cageo.2015.01.012	Delivery of test data: **Sept 2020** Feedback expected by **Oct 2020.**	Interface to upload and thematize shapefiles and GeoPackages Search system. Download data with or without access control Identify + follow link		**April 30th 2021**	Part of FRAME product #5 - Energy Critical Elements (Li, Co and graphite): Potential / prospectivity maps (see Annex A)

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers			
Lithium CBA favourability map of Europe	Cell based associations (CBA) prospectivity map for lithium in Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	One GeoPackage: spatial data and attributes. PDF files and DOI: This is not ready yet, but will be delivered when the dataset is finished and updated	Delivery of test data: **Nov 30th, 2020** Feedback expected by **Dec 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system. Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers		**April 30th 2021**	Part of FRAME product #5 - Energy Critical Elements (Li, Co and graphite): Potential / prospectivity maps (see Annex A)
Graphite CBA favourability map of Europe	Cell based associations (CBA) prospectivity map for graphite in	One GeoPackage: spatial data and attributes. PDF files and DOI: This is not ready	Delivery of test data: **Nov 30th, 2020**	Interface to upload and thematize shapefiles and GeoPackages		**April 30th 2021**	Part of FRAME product #5 - Energy Critical Elements (Li, Co, and graphite): Potential /

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	Europe. Polygons delivered in GeoPackage format, including attributes and layers to be displayed.	yet, but will be delivered when the dataset is finished and updated	Feedback expected by **Dec 2020**	Search system. Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface. From getfeatureinfo creation of an automatic report querying a selection of layers			prospectivity maps (see Annex A)
Historic mine sites in Europe (preliminary)	Location of historic mine sites (mines and mine waste sites) as points	One GeoPackage: spatial data and attributes PDF files and DOI: This is not ready yet, but will be delivered when the dataset is finished and updated	Delivery of test data: **Jan 2021** Feedback expected by **Feb 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system. search for commodities; mine/mine waste; period of production etc. Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS		**April 30th 2021**	Part of FRAME product #7 - Mineral Occurrences and Mines update for historical mines (mining waste), (see Annex A)

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				interface (e.g. mine; Pb/Zn as main product; mine waste; In content) From getfeatureinfo creation of an automatic report querying a selection of layers (examples: Minerals occurrence, mines, mine waste)			

Table 14. FRAME's data delivery plan: spatial data delivered as services (e.g., WFS, WMS)

Dataset	Service URL and description of the data included in it.	List of files together with the web service	Time interval – testing	Functionality to be tested	Other feedbacks required	Date of final version of services	Comments
Critical and Strategic Minerals Map of Europe: mineral occurrences/deposits spatial distribution on land and the marine environment (Includes the final maps of REE mineral occurrences/deposits and Energy Critical Materials spatial distribution in Europe listed in table 1 of this document)	M4EU harvesting performed by MINTELL4EU project	*PDF files and DOIs linked to data:* DOI: 10.3390/MIN10040365 URL: https://www.mdpi.com/694672 DOI: 10.1016/j.oregeorev.2015.09.019 DOI: 10.1016/j.gexplo.2012.12.007 https://doi.org/10.5194/egusphere-egu2020-7931 http://resource.sgu.se/produkter/rm/rm146-rapport.pdf www.frame.lneg.pt/wp-content/uploads/2020/06/FRAME-	URL with test data will be available for harvesting and testing: ***end of Jan 2021*** Feedback expected by ***Feb 2021*** (2nd test: Availability of updated data for harvesting and perform second testing: ***end of Feb 2021*** Feedback expected by: ***March 2021***	*Search based on location* *Web page with all services* *Download data (no access control)* *Identify + follow link* *overview panel* *Legend with tree view / hierarchical on/off switching* *Export map* *Multiscaling,* *Creation of statistical diagram rose diagrams, histograms* *Create simple queries and filters from the webGIS interface Simple filter based on commodities or simple filter by genetic type*	*Validity of web services, attributes, and vocabularies according to international standards.* *Links to vocabulary and visualization in EGDI webGIS portal* *Interface to upload documents in doc repository.* *Links to documents located in Doc Repository*	***End of June 2021***	FRAME product #1 - listed in Annex A Linked to MINDeSEA and MINTELL4EU projects

Dataset	Service URL and description of the data included in it.	List of files together with the web service	Time interval – testing	Functionality to be tested	Other feedbacks required	Date of final version of services	Comments
		Newsletter-Issue-6.pdf		*(e.g. REE associated with alkaline, REE associated with iron oxide apatite).* *From getfeatureinfo creation of an automatic report querying a selection of layers*			
CRM in phosphate deposits and associated black shales: Update on "Mineral occurrences/deposits spatial distribution"	M4EU harvesting performed by MINTELL4EU project	*PDF files and DOIs linked to data: News on Phosphate deposits and sustainability (http://www.frame.lneg.pt/#News/Events). Newsletter: http://www.frame.lneg.pt/wp-content/uploads/2019/06/FRAME-Newsletter-Issue-3.pdf*	URL with test data will be available for harvesting and testing: ***end of Jan 2020*** Feedback expected by ***Feb 2021*** second testing: ***end of Feb 2021*** Feedback expected by ***March 2021***	*Search based on location* *Web page with all services* *Download data (no access control)* *Identify + follow link* *overview panel* *Legend with tree view / hierarchical on/off switching* *Export map* *Multiscaling* *Creation of statistical diagram rose*	*Validity of web services, attributes, and vocabularies according to international standards.* *Links to vocabulary and visualization in EGDI webGIS portal* *Interface to upload documents in doc repository.* *Links to documents located in Doc Repository*	**End of *June 2021***	FRAME product #4 listed in Annex A Linked to MINTELL4EU project

Dataset	Service URL and description of the data included in it.	List of files together with the web service	Time interval – testing	Functionality to be tested	Other feedbacks required	Date of final version of services	Comments
				diagrams, histograms *Create simple queries and filters from the webGIS interface* *From getfeatureinfo creation of an automatic report querying a selection of layers*			
Mineral Occurrences and Mines update for Nb-Ta mineralisation	M4EU harvesting performed by MINTELL4EU project	*PDF files and DOIs linked to data: This is not ready yet, but will be delivered when the dataset is finished and updated*	URL with test data will be available for harvesting and testing: ***end of Jan 2021*** Feedback expected by ***Feb 2021*** 2nd test: ***end of Feb 2021*** Feedback expected by: ***March 2021***	*Search based on location* *Web page with all services* *Download data (no access control)* *Identify + follow link* *overview panel* *Legend with tree view / hierarchical on/off switching* *Export map* *Multiscaling*	*Validity of web services, attributes and vocabularies according to international standards.* *Links to vocabulary and visualization in EGDI webGIS portal* *Interface to upload documents in doc repository.* *Links to documents located in Doc Repository*	***End of June 2021***	FRAME product #6 listed in Annex A Linked to MINTELL4EU project

Dataset	Service URL and description of the data included in it.	List of files together with the web service	Time interval – testing	Functionality to be tested	Other feedbacks required	Date of final version of services	Comments
				Creation of statistical diagram rose diagrams, histograms *Create simple queries and filters from the webGIS interface. E.g., It should be possible to select either Nb or Ta or Nb+Ta to show on the map. Selections based on genetic type, mineralogy, occurrence, or deposit etc.* *From getfeatureinfo creation of an automatic report querying a selection of layers*			
Mineral Occurrences and Mines update for historical mines case studies (mining waste)	M4EU harvesting performed by MINTELL4EU project	*PDF files and DOIs linked to data: This is not ready yet, but will be delivered when the dataset is*	1st test: URL with test data will be available for harvesting and testing:	*Search based on location* *Web page with all services* *Download data (no access control)*	*Validity of web services, attributes, and vocabularies according to international standards.* *Links to vocabulary and*	**End of June 2021**	FRAME product #7 listed in Annex A Linked to MINTELL4EU project

Dataset	Service URL and description of the data included in it.	List of files together with the web service	Time interval – testing	Functionality to be tested	Other feedbacks required	Date of final version of services	Comments
		finished and updated	***end of Jan 2021*** Feedback expected by ***Feb 2021*** 2nd test: ***end of Feb 2021*** Feedback expected by: ***March 2021***	*Identify + follow link* *overview panel* *Legend with tree view / hierarchical on/off switching* *Export map* *Multiscaling* *Creation of statistical diagram rose diagrams, histograms* *Create simple queries and filters from the webGIS interface* *From getfeatureinfo creation of an automatic report querying a selection of layers*	*visualization in EGDI webGIS portal* *Interface to upload documents in doc repository.* *Links to documents located in Doc Repository*		

Table 15. FRAME data delivery plan: metadata.

Metadata	Delivery method	date from when CSW will be available for harvesting	Date that metadata will be directly edited in EGDI metadata catalogue.	Tests and feedbacks on EGDI metadata catalogue	Comments
All metadata sets		N/A	***June 2020 – end of project***	Add EPSG:5730. European Vertical Reference Frame 2000, as the Vertical reference system (item 22 of the EGDI metadata profile)	
Metadata #1 REE mineral occurrences/deposits spatial distribution (prototype) 5efb2a53-29d0-458a-9eee-0bfa0a010833.xml https://egdi.geology.cz/record/basic/5efb2a53-29d0-458a-9eee-0bfa0a010833	Direct edition in EGDI metadata catalogue This refers only to the provisory metadata. FRAME awaiting feedback from EGDI to provide service URL	N/A	***June 2020***	Add this CRS: Europe_Albers_Equal_Area_Conic. WKID: 102013 Authority: Esri (item 21 of the EGDI metadata profile) Very useful to have the GeoEra Keyword Thesaurus integrated	
Metadata #2 Energy Critical Elements Map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Sept 2020***		
Metadata #3 REE metallogenic map of Europe (prototype)	Direct edition in EGDI metadata catalogue	N/A	***June 2020***		

5ef9b687-7464-48d1-a170-548a0a010833.xml https://egdi.geology.cz/record/basic/5ef9b687-7464-48d1-a170-548a0a010833	*(for testing purposes)*				
Metadata #4 Lithium metallogenic map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #5 Cobalt metallogenic map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #6 Graphite metallogenic map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #7 Phosphor metallogenic map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #8 Niobium metallogenic map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #9 Tantalum metallogenic map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		

Metadata #10 Rare Earth elements CBA favourability map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #11 Niobium CBA favourability map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #12 Tantalum CBA favourability map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #13 Phosphor CBA favourability map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #14 Cobalt CBA favourability map of Europe (prototype)	Direct edition in EGDI metadata catalogue	N/A	***Sept 2020***		
Metadata #15 Lithium CBA favourability map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #16 Graphite CBA favourability map of Europe	Direct edition in EGDI metadata catalogue	N/A	***Nov 2020***		
Metadata #17	Direct edition in EGDI	N/A	***Jan 2021***		

Historic mine sites in Europe (preliminary	metadata catalogue.				
Metadata #18 (number of total metadata equal to the number of total metadata from previous projects). Update of Metadata from previous projects (e.g. ProMine, Minerals4EU, EURARE, ProSUM, Screen) Critical and Strategic Minerals Map of Europe: mineral occurrences/deposits spatial distribution on land and the marine environment CRM in phosphate deposits and associated black shales: Update on "Mineral occurrences/deposits spatial distribution" Mineral Occurrences and Mines update for Nb-Ta mineralisation Mineral Occurrences and Mines update for historical mines case studies (mining waste)	Direct edition in EGDI metadata catalogue & harvesting from CSW	*April 2021*	***April 2021 – end of the project***	Update the metadata produced in former projects. List of the metadata produced in former projects (e.g. ProMine, Minerals4EU, EURARE, ProSUM, Screen) (either directly edited or by CSW) Suggestion: addition of the project names in the keyword	

2.7 MINDeSEA

Table 16. MINDeSEA's data delivery plan: spatial data and documents

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Ferro-Manganese Crusts Critical Raw Materials	Spatial data (points) called MineralOccurrence delivered in GeoPackage format called FerroManganeseCrustsCritcalRawMaterials.gpkg, with the following 11 tables 1. chemistry 2. economic 3. environment 4. metallogeny 5. Mine 6. MineralDepositModel 7. MiningActivity 8. other 9. SeafloorMassiveSulphideDeposits 10. vgpkg_MineralOccurrence 11. vocabularies GeoPackage format including tables and relationships. The relationships are set between tables based on OBJECTID and relationships to the vocabularies where concepts are included in the attribute fields. The Data Model is based on the INSPIRE Data Specification for Mineral resources MineralOccurrence schema plus	1 GeoPackage: spatial data, attributes, and relationships. 1 Excel file: data model schema, DataLoad, MiningActivity and vocabulary tables defining data and concepts linked to that dataset	1st test: Delivery of test data: **19th June 2020** Feedback expected by **Dec 2020** 2nd test: Delivery of revised data: **Jan 2020** Feedback expected by **Feb 2021**		Are Relationships created using SQLite visible in the GeoPackage delivery? Do GIP-P have any question on the INSPIRE Mineral resources implementation? Do GIP-P have any comments on type of web service to be produced?	**May 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	additional MINDeSEA partner requirements. The vocabularies table provides a list of controlled vocabularies used by partners for specific attributes in the other tables.						
Phosphorites Critical Raw Materials	Spatial data (points) called MineralOccurrence delivered in GeoPackage format called PhosphoritesCritcalRawMaterials.gpkg, with the following 12 tables 1. chemistry 2. economic 3. environment 4. metallogeny 5. Mine 6. MineralDepositModel 7. MiningActivity 8. other 9. PhosphoritesCriticalRawMaterials 10. MineralOccurrence 11. PhosphoritesCriticalRawMaterials WebService 12. vocabularies GeoPackage format including tables and relationships. The relationships are set between tables based on OBJECTID and relationships to the vocabularies	1 GeoPackage: spatial data, attributes, and relationships. 1 Excel file: data model schema, DataLoad, MiningActivity and vocabulary tables defining data and concepts linked to that dataset.	1st test: Delivery of test data: **June 2020** Feedback expected by **Sept 2020** 2nd test: Delivery of revised data: **Dec 2020** Feedback expected by **31st Feb 2021**		Are Relationships created using SQLite visible in the GeoPackage delivery? Do GIP-P have any question on the INSPIRE Mineral resources implementation? Do GIP-P have any comments on type of web service to be produced?	**May 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	where concepts are included in the attribute fields. The Data Model is based on the INSPIRE Data Specification for Mineral resources MineralOccurrence schema plus additional MINDeSEA partner requirements. The vocabularies table provides a list of controlled vocabularies used by partners for specific attributes in the other tables.						
Seafloor Massive Sulphide Deposits	Spatial data (points) called MineralOccurrence and spatial data points called SeafloorMassiveSulphideDepositsWebService delivered in GeoPackage format, with the following 12 tables 1. chemistry 2. economic 3. environment 4. metallogeny 5. Mine 6. MineralDepositModel 7. MiningActivity 8. other 9. SeafloorMassiveSulphideDeposits 10. MineralOccurrence 11. SeafloorMassiveSulphideDepositsWebService	1 GeoPackage: spatial data, attributes, and relationships. 1 Excel file: data model schema, DataLoad, MiningActivity and vocabulary tables defining data and concepts linked to that dataset. .	1st test: Delivery of test data: **June 2020** Feedback expected by **Sept 2020** 2nd test: Delivery of revised data: **Dec 2020** Feedback expected by **March 2021**		Are Relationships created using SQLite visible in the GeoPackage delivery? Do GIP-P have any question on the INSPIRE Mineral resources implementation?	**May 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	12. vocabularies GeoPackage format including tables and relationships. The relationships are set between tables based on OBJECTID and relationships to the vocabularies where concepts are included in the attribute fields. The Data Model is based on the INSPIRE Data Specification for Mineral resources MineralOccurrence schema plus additional MINDeSEA partner requirements. The vocabularies table provides a list of controlled vocabularies used by partners for specific attributes in the other tables.						
Exploration	Spatial data (polygon) called GeophObjectSet and spatial data (polygon) called ExplorationWebService delivered in GeoPackage format, with the following 13 tables 1. Campaign 2. client 3. contractor 4. cruiseInformation 5. distributionInformation	1 GeoPackage: spatial data, attributes and relationships. 1 Excel file: data model schema, DataLoad, MiningActivity and vocabulary tables defining data and concepts linked to that dataset.	1st test: Delivery of test data: **Dec 2020** Feedback expected by **Feb 2021** 2nd test: Delivery of revised data: **April 2021**		Are Relationships created using SQLite visible in the GeoPackage delivery? Do GIP-P have any question on the INSPIRE Mineral resources implementation?	**June 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	6. DocumentCitation 7. exploration 8. GeophObjectSet 9. other 10. spatialSamplingFeature 11. ExplorationWebService 12. verticalExtent 13. vocabularies GeoPackage format including tables and relationships. The relationships are set between tables based on OBJECTID and relationships to the vocabularies where concepts are included in the attribute fields. The Data Model is based on the INSPIRE Data Specification for Mineral resources MineralOccurrence schema plus additional MINDeSEA partner requirements. The vocabularies table provides a list of controlled vocabularies used by partners for specific attributes in the other tables.		Feedback expected by **May 2021**		Do GIP-P have any comments on type of web service to be produced?		
Polymetallic Nodules	Spatial data (points) called MineralOccurrence and spatial data (points) called PolymetallicNodules WebService	1 GeoPackage: spatial data, attributes, and relationships. 1 Excel file: data model schema,	1st test: Delivery of test data: **Aug 2020**		Are Relationships created using SQLite visible in the GeoPackage delivery?	**May 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	delivered in GeoPackage format called PolymetallicNodules GeoPackage.gpkg, with the following 12 tables 1. chemistry 2. economic 3. environment 4. metallogeny 5. Mine 6. MineralDepositModel 7. MiningActivity 8. other 9. PolymetallicNodules 10. MineralOccurrence 11. PolymetallicNodulesWebService 12. vocabularies GeoPackage format including tables and relationships. The relationships are set between tables based on OBJECTID and relationships to the vocabularies where concepts are included in the attribute fields. The Data Model is based on the INSPIRE Data Specification for Mineral resources MineralOccurrence schema plus additional MINDeSEA partner requirements. The vocabularies table provides a list of controlled	DataLoad, MiningActivity and vocabulary tables defining data and concepts linked to that dataset. .	Feedback expected by **Dec 2020** 2nd test: Delivery of revised data: **31st January 2021** Feedback expected by **31st March 2021**		Do GIP-P have any question on the INSPIRE Mineral resources implementation? Do GIP-P have any comments on type of web service to be produced?		

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	vocabularies used by partners for specific attributes in the other tables.						
Marine Placer Deposits	Spatial data (points) called MineralOccurrence and spatial data (points) called MarinePlacerDepositsWebService delivered in GeoPackage format called MarinePlacerDepositsGeoPackage.gpkg, with the following 12 tables 1. chemistry 2. economic 3. environment 4. metallogeny 5. Mine 6. MineralDepositModel 7. MiningActivity 8. other 9. MarinePlacerDeposits 10. MineralOccurrence 11. MarinePlacerDepositsWebService 12. vocabularies GeoPackage format including tables and relationships. The relationships are set between tables based on OBJECTID and relationships to the vocabularies where concepts are included in the attribute fields. The	1 GeoPackage: spatial data, attributes, and relationships. 1 Excel file: data model schema, DataLoad, MiningActivity and vocabulary tables defining data and concepts linked to that dataset.	1st test: Delivery of test data: **Aug 2020** Feedback expected by **Dec 2020** 2nd test: Delivery of revised data: **31st Jan 2021** Feedback expected by **31st March 2021**		Are Relationships created using SQLite visible in the GeoPackage delivery? Do GIP-P have any question on the INSPIRE Mineral resources implementation?	**May 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	Data Model is based on the INSPIRE Data Specification for Mineral resources MineralOccurrence schema plus additional MINDeSEA partner requirements. The vocabularies table provides a list of controlled vocabularies used by partners for specific attributes in the other tables.						

Table 17. MINDeSEA's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata for all products	Direct edition in EGDI metadata catalogue.	May 2020 – Dec 2020		MINDeSEA deliverables and feedback will be provided by Trevor Alcorn (Geological Survey Ireland) to Pavla Kramolišová in the Czech Survey.

2.8 MINTELL4EU

Table 18. MINTELL4EU's data delivery plan: spatial data and documents

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Electronic Minerals Yearbook – production and trade data	Updates of the Minerals Yearbook, production, and trade. Statistical data (time series) per country	WFS provided by BGS to be imported into the EGDI central database.	Test of reading the WFS and testing visualization at EGDI in **autumn 2020**.	Display of data country by country, functionalities as the current eMYB portal. Download service (Excel)		**June 2021**	
Electronic Minerals Yearbook – resources, reserves, and exploitation	Updates of the Minerals Yearbook, resources, reserves, and exploitation with a ref. year of 2019	WFS from BGS?	Test if old (ref. year 2013), and new data are compatible in terms of code list (will be performed by GeoZS) **fall 2020**. Test of reading the WFS and testing visualization at EGDI in winter **2020/21**	Display of data availability country by country (map). Show details for a selected country. Download service (Excel)		**Aug 2021**	
Minerals Inventory (present Minerals4EU database)	Points and polygons on mineral occurrences and mines	PostgreSQL database delivered via ftp. Data harvesting is already in place, is handled by GeoZS, GEUS supports.	New datasets are regularly harvested (e.g., every 3rd month)	Download ser-vice if agreed by data providers		No final date, regularly harvested, which will continue after GeoERA.	Harvesting and visualization already in place, except for Mining Waste (Tailings)

Map of historical mines with touristic interest	Points	GeoPackage	**September 2020**	Viewer with search functions, clickable points linking to more information		**Feb 2021**	Link to Min4EU mines database, pending issue
Report on UNFC	pdf		**Feb 2021**	Maybe clickable to pilot areas (will require a GeoPackage with the pilot areas (map))		**Last month of MINTELL4EU** **Winter 2020/21 (map)**	

Table 19. MINTELL4EU's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata from all products	Direct edition in EGDI metadata catalogue.	***Jan–June 2021***		

2.9 GeoConnect^{3}d

Table 20. GeoConnect^{3}d's data delivery plan: spatial data and documents

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Geological limits database	Vector	*3 GeoPackages: spatial data (including buffer/uncertainty around limits) and attributes* *1 Excel file: vocabulary schema defining concepts linked to that dataset*	1st test: Delivery of test data: ***Nov– Dec 2020*** Feedback expected by **end of *Dec 2020***	*Interface to upload and thematize shapefiles and GeoPackages* *Search system* *Turning layers on / off* *Multiscaling* *Web page with all services* *Download data with or without access control* *Identify + follow link* *Create simple queries and filters from the webGIS interface* *From getfeatureinfo creation of an automatic report querying a selection of layers*	*Validity of data format, attributes, and vocabularies according to international standards.* *Links to vocabulary and visualization in EGDI webGIS portal* *Interface to upload documents in doc repository.* *Links to documents located in Doc Repository*	***July-Sept 2021***	*Structural framework files*
Geological units	Vector	*3 GeoPackages (WP3, WP4 and WP5): spatial data and attributes* *1 Excel file: vocabulary schema defining concepts linked to that dataset*	1st test: Delivery of test data: ***Nov– Dec 2020*** Feedback expected by **end of *Dec 2020***	Idem	Idem	***July-Sept 2021***	*Structural framework files*

Geomanifestations (various data types)	Vector, Raster, Grids, JPG	*3 GeoPackages: spatial data and attributes* *1 Excel file: vocabulary schema defining concepts linked to that dataset* *PDF files and DOI: documents and papers with extra information about different locations*	1st test: Delivery of test data: ***Dec 2020 – Jan 2021*** Feedback expected by **end of Jan 2020** 2nd test: Delivery of test data: ***March 2021*** Feedback expected by **mid-*April 2020***	*Create simple queries and filters from the webGIS interface* *Search system* *Links (URLs) to blogs along with the PDFs* *Turning layers on / off* *Multiscaling*	Idem	***July-Sept 2021***	*Structural framework files*
Evaluation of deep geothermal exploitation	Vector & PDF	*Shapefiles: spatial data* *PDF files: documents with extra information about each location.*	1st test: Delivery of test data: ***June 2021*** Feedback expected by **mid-*July 2020***	*Interface to upload and thematize shapefiles and GeoPackages* *Search system* *Turning layers on / off*	*Validity of data format, attributes, and vocabularies according to international standards.* *Interface (how it looks within the structural framework)*	***Sept 2021***	
Traffic light maps derived from properties of 2D/3D models	3D Voxel model & PDF	*Shapefiles: spatial data* *PDF files: documents with extra information about each zone*	1st test: Delivery of test data: ***June 2021*** Feedback expected by **mid-*July 2021***	Idem	*Validity of data format, attributes, and vocabularies according to international standards.* *Interface (how it looks within the structural framework)*	***Sept 2021***	
2D structural / geological models	Vector	*Shapefiles: spatial data*	1st test: Delivery of test data: **2nd half of *Dec 2020*** Feedback expected by	*Search system* *Turning layers on / off* *Multiscaling* *Identify + follow link*	*Validity of data format, attributes, and vocabularies according to international standards.* *Interface (how it looks within the*	***July–Sept 2021***	

			end of *Jan 2020*	*Create simple queries and filters from the webGIS interface*	*structural framework)*		
3D structural and geological models	Vector	Voxel: spatial data	1st test: Delivery of test data: ***Dec 2020*** Feedback expected by **end of *Jan 2020***	*Upload in the 3D database* *Search system* *Turning layers on / off*	*Validity of data format, attributes, and vocabularies according to international standards.* *Interface (how it looks within the structural framework)* *Any uploading issues*	***July-Sept 2021***	
Intra- and inter-thematic exchange logbook	PDF	*PDF file: final document*	1st test: Delivery of test data: ***Nov 2020*** Feedback expected by ***Dec 2020***	*Search system*	*Interface (how it appears to user)* *Any uploading issues*	***Sept 2021***	
Report on fault property requirements	PDF	*PDF file: final document*	1st test: Delivery of test data: end of ***Nov 2020*** Feedback expected by end of ***Dec 2020***	*Search system*	*Interface (how it appears to user)* • *Any uploading issues*	***Sept 2021***	
Report and publication(s) on the two-step framework-geomanifestation methodology	PDF; DOIs	*PDF files and DOI: documents and papers*	1st test: Delivery of test data: end of ***Nov 2020*** Feedback expected by end of ***Dec 2020***	*Search system*	*Interface (how it appears to user)* *Any uploading issues*	***Sept 2021***	
Scientific publication on annotated R2R models	PDF; DOIs	*PDF files and DOI: documents and papers*	No test foreseen	NA	NA	***Sept 2021***	
Report on ways to disclose essential	PDF	*PDF file: final document*	No test foreseen	NA	NA	***Sept 2021***	

subsurface data and information to different stakeholders							
Report on geomanifestations with their physical, spatial- and temporal (4D) analysis	PDF	*PDF file: final document*	No test foreseen	NA	NA	***May–June 2021***	
Scientific publication on geomanifestations	PDF; DOIs	*PDF files and DOI: documents and papers*	1st test: Delivery of test data: end of ***Nov 2020*** Feedback expected by end of ***Dec 2020***	*Search system*	*Interface (how it appears to user)* *Any uploading issues*	***Feb 2021***	
Report on lessons learnt from the Pilot areas	PDF	*PDF file: final document*	No test foreseen	NA	NA	***March–April 2021***	
Generic evaluation scheme for subsurface activities	PDF	*PDF file: final document*	No test foreseen	NA	NA	***Sept 2021***	

Table 21. GeoConnect³d's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata from all products	Direct edition in EGDI metadata catalogue.	***May-June 2021***		

2.10 HIKE

Table 22. HIKE's data delivery plan: spatial data and documents

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
European Fault Database	Geopackage containing 2D GIS representations of faults plus attributes and semantic definitions in excel	General: 1 Excel file: vocabulary schema with tectonic boundary classification Per partner: 1 GeoPackage: spatial data and attributes in Excel (linked by fault id). 1 Excel file: vocabulary schema defining concepts linked to fault dataset. Optionally: separate ZIP files with 3D fault model representations.	1st test: Test datasets have been provided in the **first half of 2020** 2nd test: Delivery of first partner datasets in from **July - Sept 2020** Feedback expected by **Oct 2020**	Interface to upload and thematize GeoPackages Visualize datasets with fault attribute filters (e.g. stratigraphy, scale, depth) Search and selection system (spatial, attributes) View and browse vocabulary information (cf Austrian database example) Switch between spatial (GIS) and sematic data views Web page with all services Download data with or without access control Identify + follow link Turn on/off different layers and datasets	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Dec 2020**	Discuss option to upload 3D fault data directly in the 3D viewer and repository (establish link with 2D representation based on fault id) Help link to guideline documents Can users upload updated datasets after project? Test semantic relations between faults and unit areas in the structural framework

Table 23. HIKE's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata from all products	Direct edition in EGDI metadata catalogue.	*Oct 2020 – Dec 2020*	Test general functionality (viewing information, etc.)	For fault database: metadata specified per partner dataset For knowledge share point: metadata will be edited in EGDI document repository when uploading the different entries.

2.11 3DGEO-EU

Table 24. 3DGEO-EU's data delivery plan: spatial data and documents

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
NLS3D_ZMAP	3d model *spatial data (11 single layers) delivered as ZMAP-ASCII format and one supporting document*).	*11 single ASCII files (each layer in one file): spatial data for usage in 3D database.* *PDF file, which supports the 3d model as a documentation*	1st test: Delivery of test data: **15 Sept 2020** Feedback expected by beginning of **Oct 2020**	*All 3D functionalities*		**Feb 2021**	This is D1.2 for 3DGEO-EU
NLS3D_GIS	Same as NLS3D-ZMAP but in another ASCII format for use in GIS Software 3d model *spatial data (11 single layers) delivered as ESRI-ASCII format and one supporting document*).	*11 single ASCII files (each layer in one file): spatial data for usage in 3d database.* *A PDF file, which supports the 3d model as a documentation (same as above).*	1st test: Delivery of test data: **15 Sept 2020** Feedback expected by beginning of **Oct 2020**	*All 3D functionalities*		**Feb 2021**	This is D1.2 for 3DGEO-EU
NLS3D_area	Shapefile showing the extent of NLS3D model	*1 ESRI shapefile: spatial data*	1st test: Delivery of test data: **15 Sept 2020** Feedback expected by beginning of **Oct 2020**	*Search function* *Is it linked to 3D model?* *Is it possible to see related information*		**Feb 2021**	This is D1.2 for 3DGEO-EU

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Thickness maps of Cenozoic horizons	2D maps as ASCII files with addition information about depth and thickness	*3 single ASCII files (each layer in one file): spatial data.*	1st test: Delivery of test data: **15 Sept 2020** Feedback expected by beginning of **Oct 2020**	*Search function* *Is it possible to see related information like depth and thickness*	*Can it be linked to the 3D model NLS3D? Maps are derived from NLS3D, so they should be linked to each other.*	**March 2021**	This is D1.3 for 3DGEO-EU
Geological barrier between salt / and fresh water	2D maps as ASCII file with addition information about depth and thickness	*1 single ASCII file: spatial data*	1st test: Delivery of test data: **15 May 2021** Feedback expected by beginning of **June 2021**	*Search function* *Is it possible to see related information like depth and thickness?*	*Can it be linked to the 3D model NLS3D? Maps are derived from NLS3D, so they should be linked to each other*	**May or June 2021**	This is D1.4 for 3DGEO-EU
D2.1: State of the Art report on previous work and results in the Polish-German border region at national, interstate, and international level	Report	pdf file	**Sept 2020**	Download pdf		**June–July 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
D2.3a and b: Improved and harmonized geological 3D models at the Polish-German border region for the pilot areas 1) and 2)	3D models (stratigraphic boundaries and related faults)	GoCad AscII (ts files)	1st test: **Oct 2020** (model pilot area 1)	Handling and displaying 3D models Transparency of 3D models Virtual cross section Virtual borehole Compass Grid lines no download of 3D-data – only export of views (pdf/jpg files)		**June–July 2021**	the final data will include the models of both pilot areas
D2.2: Documentation of harmonization methods, workflows and results for different geological/geophysical datasets and levels of investigation	Report	pdf file		Download pdf		**June–July 2021**	
D2.4: Final report including best practices/ lessons learned/recommendations	Report	pdf file		Download pdf		**June–July 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
D3.2: A generalized 3D depth model of (a part of) the Entenschnabel region (M6)	*Spatial data: 2.5D depth model consisting of horizons (2D-GRID in 3D space); layercake depth-grid (1 grid per horizon)*	*CPS3- and zmap grids (zmap-grids could be converted to arc-asc files)*	*1st test: a.s.a.p*	*Download data with or without access control* *Create virtual cross section 2.5D layers from a user defined geometry* *Handling and displaying 3D models* *Transparency of 3D models* *Virtual borehole* *Virtual cross section* *Virtual (horizontal) slice*		**Dec 2020**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
D3.7: Harmonized cross-border velocity model (M24)	*Spatial data: 2.5D velocity model consisting of horizons (2D-GRID in 3D space). layercake velocity-grid (1 grid per horizon)*	CPS3- and zmap grids (zmap-grids could be converted to arc-asc files)	1st test: **Nov 2020**	Download data with or without access control Create virtual cross section 2.5D layers from a user defined geometry Handling and displaying 3D models Transparency of 3D models Virtual borehole Virtual cross section Virtual (horizontal) slice		**May 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
D3.8: Harmonized structural 3D model in depth (M30)	*Spatial data: 2.5D depth model consisting of horizons (2D-GRID in 3D space); layercake depth-grid (1 grid per horizon)*	CPS3- and zmap grids (zmap-grids could be converted to arc-asc files)	1st test: March 2020	Download data with without access control Create virtual cross section 2.5D layers from a user defined geometry Handling and displaying 3D models Transparency of 3D models Virtual borehole Virtual cross section Virtual horizontal slice		May 2021	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Example of models with different types of uncertainty	3D Models of geological units (volume models) horizons, faults, or boreholes as examples for different types of uncertainty	*PDF with documentation, 3D Model data, either using ASCII based Gocad file formats or VTK*	**Oct 2020 – June 2021**	*3D Visualization of structural model and attributes (uncertainty)*	Examples (including code) how these data could be visualized on the web might be available. Should/Could the data be drawn directly from the database, e.g. using javascript? Can the visualization be incorporated in EGDI? Can the visualization examples be incorporated in the web page?	**March – June 2021**	
Regional geological model with uncertainty.	3D Model of geological horizons and faults. Attributes describe estimated uncertainty	*A Shapefile or geopackage describing location.* *1 PDF with documentation 3D Model data, will be either in Gocad TSurf format, Gocad 2D-Grid format or VTK format*	Jan 2020 – June 2021	*3D Visualization of structural model and attributes (uncertainty)*	*See above*	**March – June 2021**	
D6.1: Report:	PDF file	PDF	Not relevant	View and download		**Jun – Oct 21**	D6.1: Report: 3D model SW Pyrenees
D6.2AA Bouguer and residual anomaly maps	D6.2AA-bouguer D6.2AA-residual	GRD/ASCII files	March 21	All possible functionalities for 3D model		**Dec 20 – Aug 21**	D6.2a: Digital files 3D model SW Pyrenees

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
D6.2AA Gravity data	D6.2AA-Gravimetric data (xls and kmz)	XLS/ASCII file KMZ file	March 21	By clicking, Gravimetric info should be displayed in the 3D model	Open to other positioning formats derived from xls or ascii files	**Dec 20 – Aug 21**	D6.2a: Digital files 3D model SW Pyrenees
D6.2AB Petrophysical data	D6.2AB-Petrophysics (xls and kmz)	XLS/ASCII file KMZ file	Feb 21	By clicking, Petrophysical info should be displayed in the 3D model	Open to other positioning formats derived from xls or ascii files	**Dec 20 – Aug 21**	D6.2a: Digital files 3D model SW Pyrenees
D6.2AC Cross section data	D6.2ACi-Cross section 1 (to i) (tiff and shp)	Image files Shape data (section position)	April 21	3D visualization	We may also include here 2D some seismic sections (TIFF files)	**Dec 20 – Aug 21**	D6.2a: Digital files 3D model SW Pyrenees
D6.2AC Geological map data	D6.2AC-Geological map	GeoTIFF/JPG files	April 21	3D visualization		**Dec 20 – Aug 21**	D6.2a: Digital files 3D model SW Pyrenees
D6.2AD SW Pyrenees 3D model	D6.2ADi-Modelled horizon 1 (to i)	Modelled horizons (i) ZMAP/GRD/XYZ...	May 21	All possible functionalities for 3D model		**Dec 20 – Aug 21**	
D6.2B Faults in SW Pyrenees	D6.2Bi-Modelled faults 1 (to i)	Modelled faults (i) ZMAP/GRD/XYZ...	May 21	All possible functionalities for 3D model		**May – Sep 21**	D6.2b: Faults in the SW Pyrenees
D6.3: Report:	PDF file	D6.3.PDF	Not relevant	View and download		**Jun–Oct 21**	D6.3: Report: Harmonization GER/POL border
D6.4: Report:	PDF file	D6.4.PDF	Not relevant	View and download		**Jun–Oct 21**	D6.4: Report: Structural uncertainties North Sea
D6.5: Report:	PDF file	D6.5.PDF	Not relevant	View and download		**Jun–Oct 21**	D6.5: Report: Optimized reconstructions workflow

Table 25. 3DGEO-EU's data delivery plan: Metadata

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata from WP1 (3DGEO-EU)	Direct edition in EGDI metadata catalogue	*Feb. 2021 – June 2021*		
Metadata from WP3 (3DGEO-EU)	Direct edition in EGDI metadata catalogue	*2020 - 2021*		
Metadata from WP4 (3DGEO-EU)	Direct edition in EGDI metadata catalogue	*March 2020 – June 2021*		

2.12 MUSE

Table 26. MUSE's data delivery plan: spatial data and documents.

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
Location of existing geothermal installations	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**June– July 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Oct 2020 – Nov 2021**	
Location of existing other groundwater use	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**June– July 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Identify + follow link	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal	**Oct 2020 – Nov 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Interface to upload documents in doc repository.		
Water protection zones	2D GIS data (vector: polygons)	1 GeoPackage several PDFs (facts sheet), one per study area, with a description of the data	**June–July 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Dec 2020 –Jan 2021**	
Pilot areas	2D GIS data (vector: polygons)	1 GeoPackage several PDFs (fact sheets), one per	**June–July 2020**	Interface to upload and thematize shapefiles and GeoPackages	Validity of data format, attributes and vocabularies according to	**Oct 2020 –Nov 2020**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		study area, with a description of the data		Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Areas suited for groundwater disposal to surface waters or municipal drains	2D GIS data (vector: points, polygons)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Sep 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents	**Nov – Dec 2020**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	located in Doc Repository		
Flood risk	2D GIS data (vector: points and Raster graphics)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Sep 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Nov – Dec 2020**	
Groundwater bodies suitable for Aquifer Thermal Energy Storage (ATES)	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Sep 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes and vocabularies according to international standards.	**Nov – Dec 2020**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Groundwater zones suitable for the use of open loop systems	2D GIS data (vector: polygons)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Sep 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Nov – Dec 2020**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Karstified zones possible	2D GIS data (vector: points, polygons)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Sep 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Nov – Dec 2020**	
Landfills or contaminated areas	2D GIS data (vector: points, polygons)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Sep 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and	**Nov – Dec 2020**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Mining areas	2D GIS data (vector: polygons, points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Sep 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Feb–March 2021**	
Surface temperature	2D GIS data (Raster)	1 GeoPackage	**Sep 2020**	Interface to upload and	Validity of data format,	**Nov – Dec 2020**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		several PDFs (fact sheets), one per study area, with a description of the data		thematize shapefiles and GeoPackages Search system Web page with all services Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Hydraulic conductivity	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Oct 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents	**Dec 2020 – Jan 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers	located in Doc Repository		
Natural reserves and protection areas	2D GIS data (vector: polygons)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Oct 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Dec 2020 – Jan 2021**	
Net aquifer thickness	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Oct 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and	**Dec 2020 – Jan 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Observed ground stability problems	2D GIS data (vector: polygons, points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Oct 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Dec 2020 – Jan 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				report querying a selection of layers			
Overpressured or artesian groundwater zones	2D GIS data (vector: polygons, points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Oct 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Dec 2020 – Jan 2021**	
Specific yield	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Oct 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization	**Dec 2020 – Jan 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Thermal conductivity at a specific geological boundary	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Oct 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Dec 2020 – Jan 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				report querying a selection of layers			
Zones influenced by landslides	2D GIS data (vector: polygons, points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Oct 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Dec 2020 – Jan 2021**	
Existing subsurface infrastructure	2D GIS data (vector: polylines)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Nov 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Identify + follow link Create simple queries and	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal	**Jan –Feb 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Fault systems	2D GIS data (vector: polylines)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Nov 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Jan –Feb 2021**	
Groundwater zones of problematic chemistry	2D GIS data (vector: polygons, points)	1 GeoPackage several PDFs (fact sheets),	**Nov 2020**	Interface to upload and thematize	Validity of data format, attributes and vocabularies	**Jan –Feb 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		one per study area, with a description of the data		shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Hydraulic transmissivity	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Nov 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository.	**Jan –Feb 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to documents located in Doc Repository		
Specific hydraulic productivity	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Nov 2020**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Jan –Feb 2021**	
Zones with restrictions to drilling	2D GIS data (vector: polygons)	1 GeoPackage several PDFs (fact sheets), one per	**Nov 2020**	Interface to upload and thematize	Validity of data format, attributes, and vocabularies	**Jan –Feb 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		study area, with a description of the data		shapefiles and GeoPackages Search system Web page with all services Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Depth of a geological boundary	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Dec 2020 – Jan 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Feb – April 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Elevation of a geological boundary	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Dec 2020 – Jan 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Feb – April 2021**	
Existing geological profiles and cross-sections	2D GIS data (vector: polygons, points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a	**Dec 2020 – Jan 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes, and vocabularies according to international standards.	**Feb – April 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		description of the data		Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Geomagnetic characterization	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Dec 2020 – Jan 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Feb – April 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Lithology of a specific geological unit or boundary	2D GIS data (vector: polygons)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Dec 2020 – Jan 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**Feb – April 2021**	
Annual thermal load - closed loop system	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a	**Feb 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes, and vocabularies according to international standards.	**March – May 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		description of the data		Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Average interval bulk thermal conductivity	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Feb 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**June–July 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Average interval subsurface temperature	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**Feb 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes, and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**March – May 2021**	
Average interval temperature gradient	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a	**Feb 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes, and vocabularies according to international standards.	**March – May 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		description of the data		Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Measured subsurface temperature profiles	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data Optional file package for download of data reports	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – June 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Observed hydraulic conductivity	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data Optional file package for download of data reports	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – June 2021**	
Observed specific yield	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a	**Feb 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes and vocabularies according to international standards.	**June– July 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		description of the data Optional file package for download of data reports		Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Heat transfer rate	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**March 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**April – June 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
In-situ Thermal conductivity of unconsolidated sediments	2D GIS data (points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data Optional file package for download of data reports	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May–June 2021**	
Interval thermal conductivities (TRT measurements)	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a	**March 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes and vocabularies according to international standards.	**April – June 2021**	The download functionality is limited to data produced by MUSE partners

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		description of the data		Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Measured electrical conductivity	2D GIS data (vector, points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data Optional file package for download of data reports	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – June 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Measured groundwater depth	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data Optional file package for download of data reports	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – June 2021**	
Measured groundwater level	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes and vocabularies according to international standards.	**May – June 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		description of the data Optional file package for download of data reports		Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Measured groundwater temperature	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data Optional file package for download of data reports	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – June 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Specific annual thermal load - closed loop systems	2D GIS data (vector: Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**March 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**April – June 2021**	
Specific thermal capacity - closed loop systems	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a	**March 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes and vocabularies according to international standards.	**April – June 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		description of the data		Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Thermal conductivity of hardrock samples	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data Optional file package for download of data reports	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – June 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Thermal Response Tests	2D GIS data (vector: points)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data Optional file package for download of data reports	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – June 2021**	
Effective groundwater temperature at peak cooling season	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes and vocabularies according to international standards.	**May – July 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		description of the data		Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Effective groundwater temperature at peak heating season.	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – July 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Effective thermal diffusivity	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – July 2021**	
Specific annual thermal load - open loop systems	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes and vocabularies according to international standards.	**May – July 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		description of the data		Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Specific thermal capacity - open loop systems	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – July 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Thermal productivity	2D GIS data (Raster)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**April 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**May – July 2021**	
Decision support map for the use of shallow geothermal use	2D GIS data (vector: polygons)	1 GeoPackage several PDFs (fact sheets), one per study area, with a	**June 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system	Validity of data format, attributes and vocabularies according to international standards.	**July –Sep 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
		description of the data		Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository		
Traffic light map closed loop system	2D GIS data (vector: polygons)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**June 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**July –Sep 2021**	

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
				From getfeatureinfo creation of an automatic report querying a selection of layers			
Traffic light map open loop system	2D GIS data (vector: polygons)	1 GeoPackage several PDFs (fact sheets), one per study area, with a description of the data	**June 2021**	Interface to upload and thematize shapefiles and GeoPackages Search system Web page with all services Download data with or without access control Identify + follow link Create simple queries and filters from the webGIS interface From getfeatureinfo creation of an automatic report querying a selection of layers	Validity of data format, attributes and vocabularies according to international standards. Links to vocabulary and visualization in EGDI webGIS portal Interface to upload documents in doc repository. Links to documents located in Doc Repository	**July –Sep 2021**	
Catalogue of evaluated methods and guidelines on exploration, assessment, and technical monitoring of	1 Report	1 PDF	**April 2021**	Uploading interface of EGDI document repository		**May 2021**	MUSE deliverable D2.1

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
shallow geothermal energy use in urban regions							
Catalogue of factsheets of evaluated and characterised SGE concepts of use in urban areas	1 Report	1 PDF	**Oct 2020**			**Nov 2021**	MUSE deliverable D2.2
Report on the current legal framework, procedures, and policies on SGE use in selected European cities	1 Report	1 PDF	**Oct 2020**			**Nov 2021**	MUSE deliverable D3.1
Guideline for integrating and managing the use of SGE in urban areas	1 Report	1 PDF	**June 2021**			**July 2021**	MUSE deliverable D3.2
Fact sheets on the pilot areas including the main findings of MUSE	13 documents	13 PDFs	**Oct 2020**			**Nov 2020**	MUSE deliverable D4.1, this deliverable should be linked to the basic dataset outlines of pilot areas
Summary report of the outcomes in the pilot areas	1 Report	1 PDF	**July 2021**			**Sep 2021**	MUSE deliverable D4.2
Guideline on the delivery of geodata and knowledge related to SGE to the GeoERA Information Platform	1 Report	1 PDF	**Oct 2020**			**Nov 2020**	MUSE deliverable D4.2
Guideline on the use of the SGE web platform tools at the Information Platform	1 Report	1 PDF	**March 2021**			**April 2021**	MUSE deliverable D 5.4

Dataset	description	List of files included in the dataset	Testing period	Functionality to be tested	Other feedbacks required	date of delivery of final version	comments
Guideline on targeted communication to stakeholders on shallow geothermal use in urban areas	1 Report	1 PDF	**Nov 2020**			**Dec 2020**	MUSE deliverable D 5.7
Project presentations at scientific and targeted events	Several documents	PDF	**Aug 2021**			**Sep 2021**	MUSE deliverable D 1.4. Various presentations and abstracts will be uploaded to the document repository
Cumulative research article published in a special journal issue on "shallow geothermal application in European urban areas"	1 document	PDF	**Aug 2021**			**Sep 2021**	Either DOI or document (at least submitted paper)

Table 27. MUSE's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata from all products	Direct edition in EGDI metadata catalogue.	Same as or a few days before uploading the data (see Table 24)	Test general functionality (viewing information, etc.)	

2.13 HotLime

Table 28. HotLime's data delivery plan: spatial data and documents

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Maps series for all 11 case studies, each having the same outline and (preparation) scale for all maps and overlays: Depth of top reservoir Gross thickness of reservoir (1) Permeability / facies distri-bution of reservoir (1) Temperatur e at top of reservoir (2) Heat-in-Place for entire reservoir thickness (2) Fault network (overlay) (3) Cross-section lines 3a) Cross-sections (4) #) see next column	1) Raster data with isolines 2) Raster data 3) Lines clickable & linked with vocab concept via URI (a) pop-up of resp. cross-section as outlined in 4. 4) Responsive PDF, clickable & linked with vocab concept via URI Raster & lines delivered as GeoPackage or shape file (depending on the partner) with attributes and URI as in data.geoscience .earth some partners (depending on the different statutory provisions in the partner countries) will provide 3D overview models as Gocad ASCII	**Two Excel files:** 1. Vocab on Tectonic Boundary Objects as represented in the spatial data and cross-section PDFs 2. Vocab on geological units as represented in cross-section PDFs **PDF** files with add'l information on each case study (Project Report). **Knowledge Base** as described in HotLime Deliverable 7.2 "Requirements catalogue for the common knowledge base within the Semantic Web, supplementing and under-pinning spatial data"	Dummies for testing available but true testing requires data.geoscie nce.earth URI's that are not available yet.	**Search:** Starting page as in https://geoera.eu/projects/hotlime6/ but unlike there, areas **on top of** (!!) geological overview map. Click on area leads to drop-down list of available spatial data for selection. **Zoom**: Max. zoom-in allowance for spatial products (varying among case study areas due to different statutory provisions in the partner countries). For **3D-models** only standard functionalities required (+ max. zoom-in allowance)	Are there any mandatory stipulations for colour coding certain information (e.g. depth, temperature, etc.)?	January 2021	Possible request for assistance for the creation of standardized GeoPackages will be addressed at the 2020-09-22 HotLime project telco

Table 29. HotLime's data delivery plan: Metadata

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Metadata from all products	Direct edition in EGDI metadata catalogue.	**January to March 2021**		Metadata will be provided as one dataset for all HotLime's areas, with all individual maps as subs (likewise in HIKE)

2.14 GARAH

Table 30. GARAH's data delivery plan: spatial data and documents.

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
GasHydrate_Site_Evidences&Indicators	GasHydrate Site Evidences & Indicators shown as points, Geopackage format. Contains three tables: The table with spatial data, a table with bibliographic references and a many-to-many table that shows the relation between points and references. There might be another table with chemical analyses, but it is not decided yet whether the chemical analyses should be delivered in a separate document	1 GeoPackage	1st test: Delivery of test data: **July 7th, 2020**. Feedback expected: first half of **Sept 2020.** Second test: data delivered **Sept 2020 – Oct 2020.**	The GIP portal should somehow show the relation between points and references (and maybe also chemical analyses). For the time being, we do not know sufficient about the limitations of the portal to say something about data can be presented. Furthermore, configuration of navigation, symbols and legend must be tested	What are the possibilities for displaying data on the portal?	**Nov – Dec 2020**	
GasHydrate_Areal_Evidences	GasHydrate Areal Evidences presented as polygons. Delivered in geopackage format. Also contains many-to-many relation to bibliographic references	1 GeoPackage	1st test: **Sept – Oct 2020** 2nd Test: **Oct–Nov 2020**	The GIP portal should somehow show the relation between points and bibliographic references. Navigation, symbols, and legend must be tested		**Nov - Dec 2020**	
GasHydrate_Local_Geophy_Indicators	geophysical indicators shown as points. Delivered in geopackage format. Contains a many-to-many relation to bibliographic references	1 GeoPackage	1st test: **Sept – Oct 2020** 2nd Test: **Oct–Nov 2020**	The GIP portal should somehow show the relation between points and bibliographic references. Navigation,		**Nov - Dec 2020**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
				symbols, and legend must be tested			
GasHydrate_Profile_Geophy_Indicators	GasHydrate Profile Geophyical Indicators. Lines. Delivered in geopackage format. Contains a many-to-many relation to bibliographic references	1 GeoPackage	1st test: **Sept – Oct 2020** 2nd Test: **Oct–Nov 2020**	The GIP portal should somehow show the relation between points and bibliographic references. Navigation, symbols, and legend must be tested		**Nov 15 - Dec 1 2020**	
GasHydrate_Areal_Geophy_Indicators	GasHydrate Areal Geophysical Indicators. Polygons. Delivered in geopackage format. Contains a many-to-many relation to bibliographic references	1 GeoPackage	1st test: **Sept – Oct 2020** 2nd Test: **Oct–Nov 2020**	The GIP portal should somehow show the relation between points and bibliographic references. Navigation, symbols, and legend must be tested		**Nov 15 - Dec 1 2020**	
FluidFlow_Seafloor_Point_Features	FluidFlow Seafloor Areal Features. Points. Delivered in geopackage format. Contains a many-to-many relation to bibliographic references	1 GeoPackage	1st test: **Sept – Oct 2020** 2nd Test: **Oct–Nov 2020**	The GIP portal should somehow show the relation between points and bibliographic references. Navigation, symbols, and legend must be tested		**Nov 15 - Dec 1 2020**	
FluidFlow_Seafloor_Areal_Features	FluidFlow Seafloor Areal Features. Polygons. Delivered in geopackage format. Contains a many-to-many	1 GeoPackage	1st test: **Sept – Oct 2020**	The GIP portal should somehow show the relation between points and		**Nov 15 - Dec 1 2020**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
	relation to bibliographic references		2nd Test: **Oct–Nov 2020**	bibliographic references. Navigation, symbols, and legend must be tested			
GHSZ	Gas hydrate stability zone. Raster. Delivered in geopackage format	1 GeoPackage	1st test: **Sept – Oct 2020** 2nd Test: **Oct–Nov 2020**	Navigation, symbols, and legend must be tested		**Nov 15 - Dec 1 2020**	
HeatFlow_Global	HeatFlow Global. Points. Delivered in geopackage format. Downloaded from The Global Heat Flow Database	1 GeoPackage	1st test: **Sept – Oct 2020** 2nd Test: **Oct–Nov 2020**	Navigation, symbols, and legend must be tested		**Nov 15 - Dec 1 2020**	
Seafloor Temperature	Seafloor Temperature: Points. Delivered in geopackage format	1 GeoPackage	1st test: **Sept – Oct 2020** 2nd Test: **Oct–Nov 2020**	Navigation, symbols, and legend must be tested		**Nov 15 - Dec 1 2020**	
Exploration wells	Exploration wells. points. Probably delivered in geopackage format	It is not decided yet whether data are delivered as a geopackage or whether we will use an existing service from one of the other projects in EGDI or EMODNET	1st test: **Dec 2020** 2nd Test: **Jan 2021**	Navigation, symbols, and legend must be tested		**March 2021**	
Hydrocarbon fields	Hydrocarbon fields. Polygons. oil, gas, condensate. Delivered in geopackage format	1 GeoPackage	1st test: **Dec 2020**	Navigation, symbols and legend has to be tested		**March 2021**	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
			2nd Test: **Jan 2021**				
Project areas	A least one polygon showing the outline of the study area of conventional resources in the North Sea	1 GeoPackage	1st test: **Feb 2021** 2nd Test: **March 2021**			**March 2021**, but probably postponed because of corona	
HC Plays in DCG	HC Plays in DCG. Polygons. newly digitalised from GEU Assessment. Delivered in geopackage format.	1 GeoPackage	1st test: **Feb 2021** 2nd Test: **March 2021**	Navigation, symbols and legend has to be tested		**May 2021**, but probably postponed because of corona	
Structural outlines	Basin outlines. Polygons. Delivered in geopackage format	1 GeoPackage	1st test: **Dec 2020** 2nd Test: **Jan 2021**	Navigation, symbols and legend has to be tested		**March 2021**	
Faults	Faults. Lines delivered in geopackage format	1 GeoPackage	1st test: **Feb 2021** 2nd Test: **March 2021**	Navigation, symbols, and legend has to be tested		**May 2021**, but probably postponed because of corona	
Salt diapirs outlines	Salt diapirs outlines. Delivered in geopackage format	1 GeoPackage	1st test: **Dec 2020** 2nd Test: **Jan 2021**	Navigation, symbols and legend has to be tested		**March 2021**	
TOC map, unconventional resources	TOC map. Polygons. Unconventional resources. Delivered in geopackage format	1 GeoPackage	1st test: **Feb 2021** 2nd Test: **March 2021**	Navigation, symbols and legend has to be tested		**May 2021**, but probably postponed because of corona	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Maturity map, unconventional resources	Maturity map. Polygons. Unconventional resources. Delivered in geopackage format	1 GeoPackage	1st test: **Feb 2021** 2nd Test: **March 2021**	Navigation, symbols and legend has to be tested		**May 2021**, but probably postponed because of corona	
Depth maps, unconventional resources	Depth maps. Polygons. Unconventional resources. Delivered in geopackage format	1 GeoPackage	1st test: **Feb 2021** 2nd Test: **March 2021**	Navigation, symbols and legend has to be tested		**May 2021**, but probably postponed because of corona	
Thickness maps. Unconventional resources	Thickness maps. Unconventional resources. Polygons. Delivered in geopackage format	1 GeoPackage	1st test: **Feb 2021** 2nd Test: **March 2021**	Navigation, symbols and legend has to be tested		**May 2021**, but probably postponed because of corona	
Identified CO2 storage sites, CSS	Identified CO2 storage sites, CSS. Polygons.	1 GeoPackage	1st test: **March 2021** 2nd Test: **April 2021**	Navigation, symbols, and legend has to be tested		**May 2021**, but probably postponed because of corona	
3D models	3D Volumes. Same type of 3D volumes as used in 3DGEOEU	Under discussion	1st test: **March 2021** 2nd Test: **April 2021**	Navigation, symbols and legend has to be tested		**May 2021**, but probably postponed because of corona	
2D Horizon interpretations	The format is not decided yet	Under discussion	1st test: **March 2021** 2nd Test: **April 2021**	Navigation, symbols, and legend must be tested		**May 2021**, but probably postponed because of corona	
3D surfaces	2.5D Grids. Probably delivered in geopackage format	Under discussion	1st test: **March 2021** 2nd Test: **April 2021**	Navigation, symbols, and legend must be tested		**May 2021**, but probably postponed because of corona	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Chemical analyses of gases. For WP3.	Chemical analyses of gases from IODP drilling holes. Point Data	1 geopackage	1st Test: Data delivered **Oct – Nov 2020**. 2nd Test: **Nov – Dec 2020**				it will be added as a layer on the EGDI portal
Base of hydrate stability zone for biogenic gas. NW Europe	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	
Base of hydrate stability zone for biogenic gas. SW Europe.	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	
Base of hydrate stability zone for 100% CO2. Celtic Sea & French EEZ.	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	
Base of hydrate stability zone for 96% CO2. Celtic Sea & French EEZ.	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	
Base of negative bouyancy zone for 100% C02. Celtic Sea & French EEZ	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	
Base of negative bouyancy zone for 96% C02. Celtic Sea & French EEZ	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	

Dataset	Description	List of files included in the dataset	Testing	Functionality to be tested	Other feedbacks required	date of delivery of final version	Comments
Base of hydrate stability zone for biogenic gas. From Piñero et al. 2013.	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	
Base of hydrate stability zone for 96% CO2. Extended 200M in the FISU Area, Celtic Sea.	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	
Base of hydrate stability zone for 96% CO2. South of Biscay Bay, Galicia Area.	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	
Base of negative bouyancy zone for 96% C02. Extended 200M in the FISU Area, Celtic Sea.	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	
Base of negative bouyancy zone for 96% C02. South of Biscay Bay, Galicia Area	Gas Hydrate Stability. Raster data	Under discussion				Under discussion	

Table 31. GARAH's data delivery plan: spatial data delivered as services (e.g., WFS, WMS)

Dataset	Service url and description of the data included in it.	Testing period	Functionalities to be tested	Other feedbacks required	Date of final version of services	Comments
Areas reserved/used for windmill	Areas with windmills. From EMODNET. https://ows.emodnet-humanactivities.eu/wfs?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=emodnet:windfarmspoly&OUTPUTFORMAT=json	The service is already running on EMODNET	configuration of navigation, symbols, and legend		The web services are running on EMODNET. It just must be figured out how the data should be displayed in the GARAH project	
Fishing activities	Fishing activities from EMODNET. Several layers; here an example. https://ows.emodnet-humanactivities.eu/wfs?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=emodnet:fishingbeamtrawls&OUTPUTFORMAT=json	The service is already running on EMODNET	configuration of navigation, symbols, and legend		The web services are running on EMODNET. It just must be figured out how data should be displayed in the GARAH project	
licences	Licenses from EMODNET. Polygons. https://ows.emodnet-humanactivities.eu/wfs?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=emodnet:activelicens	The service is already running on EMODNET	configuration of navigation, symbols, and legend		The web services are running on EMODNET. It just must be figured out how data should be displayed in the GARAH project	

	es&OUTPUTFORMAT=json					
Coastline + territorial boundary	this must be provided by the GIP-P		configuration of navigation, symbols, and legend		The web services are running on EMODNET. It just must be figured out how data should be displayed in the GARAH project	
Pipes and installations	Pipelines from EMODNET. https://ows.emodnet-humanactivities.eu/wfs?SERVICE=WFS&VERSION=1.1.0&request=GetFeature&typeName=emodnet:pipelines&OUTPUTFORMAT=json	The service is already running on EMODNET	configuration of navigation, symbols, and legend		The web services are running on EMODNET. It just must be figured out how data should be displayed in the GARAH project	
Sediment_Thickness	https://gis.ngdc.noaa.gov/arcgis/services/web_mercator/sediment_thickness/MapServer/WMSServer	The service is already running				Used in WP3 (Gas Hydrates)
Sedimentation rates	https://drive.emodnet-geology.eu/geoserver/gtk/wms?service=WMS&version=1.1.0&request=GetMap&layers=gtk:seabed_accumulation_rates&styles	The service is already running				

	=&bbox=-30.869843120999999,23.680472184,68.029791193000001,81.852091617&width=768&height=451&srs=EPSG:4326&format=image%2Fpng					

Table 32. GARAH's data delivery plan: metadata.

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
GasHydrate_Site_Evidences&Indicators	metadata are entered manually in the EGDI metadata catalogue	**July 2020**		
GasHydrate_Areal_Evidences	metadata are entered manually in the EGDI metadata catalogue	**Sept 2020**		
GasHydrate_Local_Geophy_Indicators	metadata are entered manually in the EGDI metadata catalogue	**Sept 2020**		
GasHydrate_Profile_Geophy_Indicators	metadata are entered manually in the EGDI metadata catalogue	**Sept 2020**		
GasHydrate_Areal_Geophy_Indicators	metadata are entered manually in the EGDI metadata catalogue	**Sept 2020**		
FluidFlow_Seafloor_Point_Features	metadata are entered manually in the EGDI metadata catalogue	**Sept 2020**		
FluidFlow_Seafloor_Areal_Features	metadata are entered manually in the EGDI metadata catalogue	**Sept 2020**		
GHSZ	metadata are entered manually in the EGDI metadata catalogue	**Sept 2020**		
HeatFlow_Global	metadata are entered manually in the EGDI metadata catalogue	**Sept 2020**		
Seafloor Temperature	metadata are entered manually in the EGDI metadata catalogue	**Sept 2020**		
Exploration wells	metadata are entered manually in the EGDI metadata catalogue	**Dec 2020**		
Hydrocarbon fields	metadata are entered manually in the EGDI metadata catalogue	**Dec 2020**		
HC Plays in DCG	metadata are entered manually in the EGDI metadata catalogue	**Dec 2020**		

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Facies maps in the Jurassic	metadata are entered manually in the EGDI metadata catalogue	**Feb 2021**		
Structural outlines	metadata are entered manually in the EGDI metadata catalogue	**Dec 2020**		
Faults	metadata are entered manually in the EGDI metadata catalogue	**Feb 2021**		
Salt diapirs outlines	metadata are entered manually in the EGDI metadata catalogue	**Dec 2020**		
TOC map, unconventional resources	metadata are entered manually in the EGDI metadata catalogue	**Feb 2021**		
Maturity map, unconventional resources	metadata are entered manually in the EGDI metadata catalogue	**Feb 2021**		
Depth maps, unconventional resources	metadata are entered manually in the EGDI metadata catalogue	**Feb 2021**		
Thickness maps. Unconventional resourses	metadata are entered manually in the EGDI metadata catalogue	**Feb 2021**		
Identified CO2 storage sites, CSS	metadata are entered manually in the EGDI metadata catalogue	**March 2021**		
Sedimentation rates	metadata are entered manually in the EGDI metadata catalogue	**March 2021**		
3D models	metadata are entered manually in the EGDI metadata catalogue	**March 2021**		
2D Horizon interpretations	metadata are entered manually in the EGDI metadata catalogue	**March 2021**		
3D surfaces	metadata are entered manually in the EGDI metadata catalogue	**March 2021**		

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Areas reserved/used for windmill	Already added to EGDI metadata catalogue by EMODNET			
Fishing activities	Already added to EGDI metadata catalogue by EMODNET			
licences	Already added to EGDI metadata catalogue by EMODNET			
Coastline + territorial boundary	EGDI metadata catalogue?			
Pipes and installations	Already added to EGDI metadata catalogue by EMODNET			
Sediment_Thickness	WMS run by NOAA			
Chemical analyses of gases. For WP3.	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		
Base of hydrate stability zone for biogenic gas. NW Europe	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		
Base of hydrate stability zone for biogenic gas. SW Europe.	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		
Base of hydrate stability zone for 100% CO2. Celtic Sea & French EEZ.	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		
Base of hydrate stability zone for 96% CO2. Celtic Sea & French EEZ.	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		
Base of negative buoyancy zone for 100% C02. Celtic Sea & French EEZ	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		
Base of negative buoyancy zone for 96% C02. Celtic Sea & French EEZ	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		
Base of hydrate stability zone for biogenic gas. From Piñero et al. 2013.	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		
Base of hydrate stability zone for 96% CO2. Extended 200M in the FISU Area, Celtic Sea.	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		

Metadata set	Delivery method	date of delivery of final version	Tests and feedbacks on EGDI metadata catalogue	Comments
Base of hydrate stability zone for 96% CO2. South of Biscay Bay, Galicia Area.	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		
Base of negative buoyancy zone for 96% C02. Extended 200M in the FISU Area, Celtic Sea.	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		
Base of negative buoyancy zone for 96% C02. South of Biscay Bay, Galicia Area	metadata are entered manually in the EGDI metadata catalogue	**Oct 2020**		