



Cookbook

for creating metadata records using
the EGDI Metadata Catalogue (MICKA,
version 6.0)

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Abstract

The EGDI Metadata Catalogue (<https://egdi.geology.cz/>) is the central access point to metadata concerning structured digital geological data sources and web services across Europe. It provides tools for compilation of those metadata in a standardized format that will allow users to effectively search through the catalogue, view and further use the metadata. In order to make data discoverable in the most efficient way, the catalogue is fully compliant with international standards and supports the distributed system of metadata administration. Only digital and structured information (spatial datasets, including 3D models, spatial data series, and spatial data services such as WMS or WFS) should be described by metadata in this catalogue. In order to display a metadata record for which an on-line map service is available, the EGDI Metadata Catalogue is integrated into the EGDI Portal (<http://www.europe-geology.eu/metadata/>).

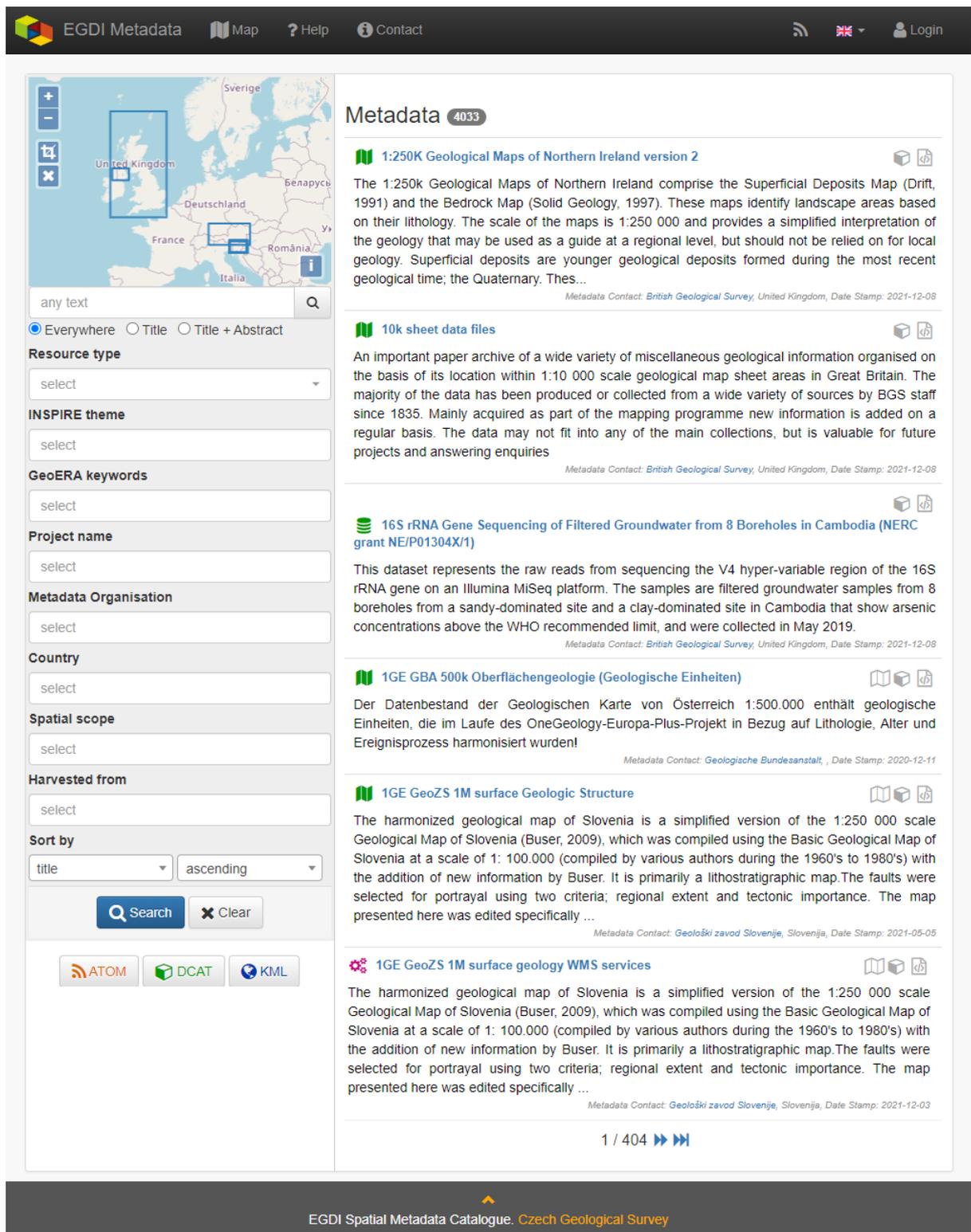
1. Introduction

This document shows how to use the EGDI Metadata Catalogue and how to fill the EGDI metadata step by step. The Cookbook guides the user to create a metadata record on an example for a spatial dataset and a spatial data service with an extension to describe 3D geological models.

The EGDI metadata profile is compliant with the requirements of the INSPIRE Directive as regards metadata, and the EN ISO 19115:2003(E) terminology is implemented and it is described in more technical details in a separate document [1].

The EGDI metadata are freely accessible to the public for viewing and searching, but inserting and editing is for authorized users only. The login information can be obtained on request from the administrator via email (egdi.metadata@geology.cz).

The EGDI Metadata Catalogue is available from: <https://egdi.geology.cz/>. Figure 1 shows the home page of the catalogue with the search interface and the list of found records. Figure 2 shows a detailed view of one metadata record for a spatial dataset with additional functionality for authorized users highlighted.



The screenshot shows the EGD Metadata Catalogue interface. At the top, there is a navigation bar with 'EGDI Metadata', 'Map', 'Help', 'Contact', and 'Login' options. Below this is a search and filter sidebar on the left, featuring a map of Europe, a search box, and various filter categories like 'Resource type', 'INSPIRE theme', 'GeoERA keywords', 'Project name', 'Metadata Organisation', 'Country', 'Spatial scope', and 'Harvested from'. The main content area on the right displays a list of metadata records under the heading 'Metadata 4033'. The first record is '1:250K Geological Maps of Northern Ireland version 2', followed by '10k sheet data files', '16S rRNA Gene Sequencing of Filtered Groundwater from 8 Boreholes in Cambodia (NERC grant NE/P01304X/1)', '1GE GBA 500k Oberflächengeologie (Geologische Einheiten)', '1GE GeoZS 1M surface Geologic Structure', and '1GE GeoZS 1M surface geology WMS services'. Each record includes a brief description and a metadata contact link. At the bottom of the page, there is a footer with 'EGDI Spatial Metadata Catalogue. Czech Geological Survey' and a page number '1 / 404'.

Figure 1: The home page of the EGD Metadata Catalogue (<https://egdi.geology.cz/>)

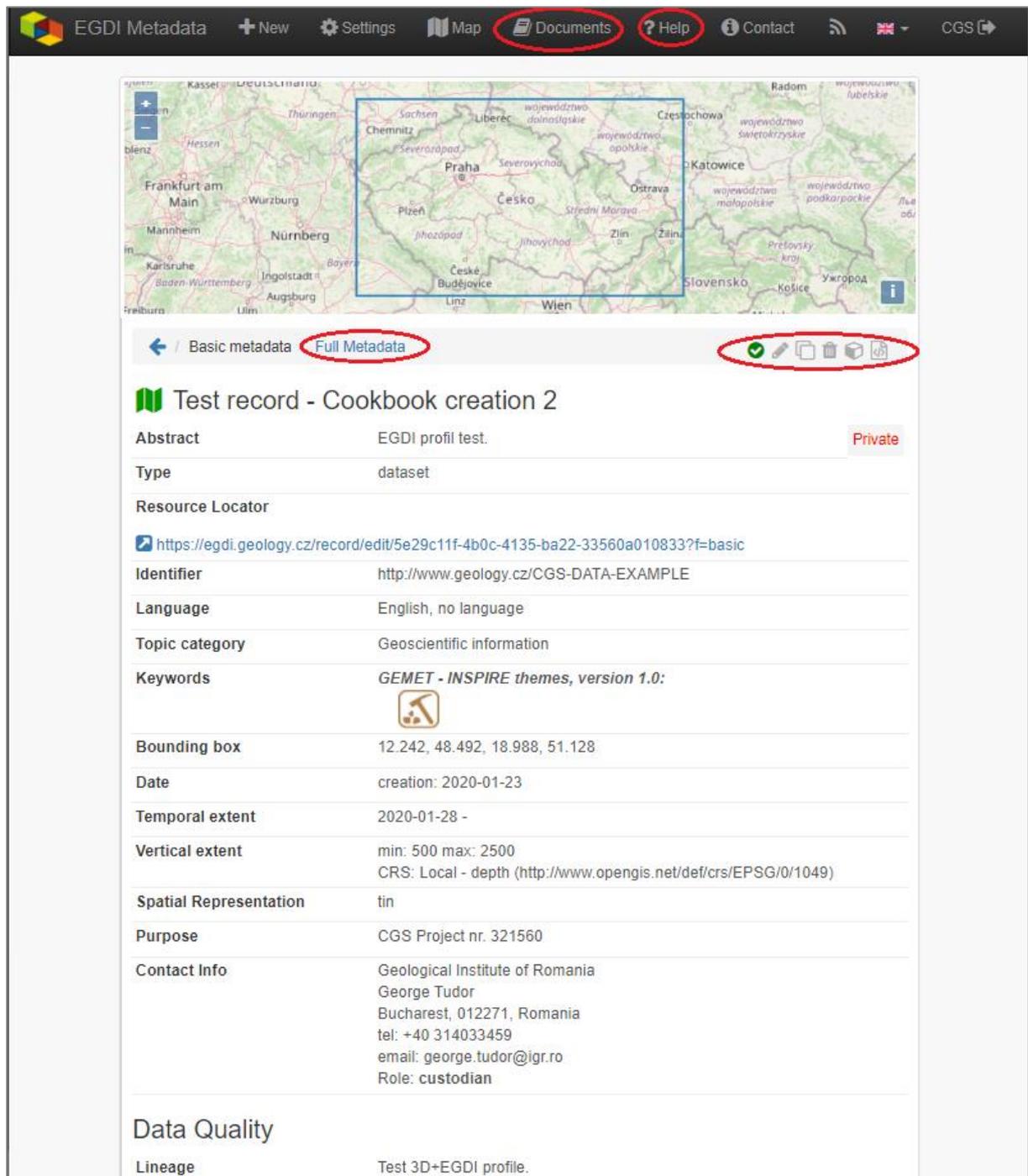


Figure 2: Basic view of a spatial dataset metadata record with a highlighted functionality for authorized users

2. Metadata input by harvesting

The first and the most recommended way for metadata creation is harvesting from another metadata catalogue. By using this approach, metadata are maintained at the most appropriate level (only once and close to the data source – that should ensure easier maintenance and update processes). Metadata can be inserted into the catalogue by

harvesting of existing public records from a data provider's catalogue, as well as from a national, project, or other metadata catalogue. Harvesting from remote catalogues and other sources can only be set by the EGDI Metadata Catalogue **administrator** on request from the data provider. It is possible to harvest just once (and update metadata manually), or set a regular harvesting interval (preferred option). Each harvesting session is documented by a harvesting report with a validation status that is sent to relevant contact points.

Harvested resources								
On	Source	Unique identifier	Type	Harvest period	Filter	Updated	Recs	Action
<input checked="" type="checkbox"/>	BGR	https://produktcenter.bgr.de/soapServices/CSWStartup	CSW-2.0.2	1 days	subject=EGDI	2020-01-28 00:31:40	16	 
<input checked="" type="checkbox"/>	BGS	https://metadata.bgs.ac.uk/geonetwork/srv/eng/csw	CSW-2.0.2	7 days		2020-01-28 00:31:39	1293	 
<input checked="" type="checkbox"/>	CGS	http://mts82a.cgu.cz/csw/index.php	CSW-2.0.2	1 days	AnyText='EGDI'	2020-01-28 00:31:41	71	 
<input type="checkbox"/>	eENViplus	http://mts85.cgu.cz/csw/	CSW-2.0.2	0 days	server='ISPRA'	2019-10-23 15:25:05	7	 
<input checked="" type="checkbox"/>	PGI-NRI	http://metadane-inspire.pgi.gov.pl/geonetwork/srv/eng/csw	CSW-2.0.2	1 days		2020-01-27 00:08:04	11	 
<input type="checkbox"/>	TerraFirma	http://mts85.cgu.cz/csw/	CSW-2.0.2	0 days	server='TerraFirma'	2019-10-23 14:16:17	112	 

Figure 3: Overview of the harvesting resources for the administrator

Metadata contact person from an organization that wants to harvest their metadata must send to the administrator (egdi.metadata@geology.cz) the following information:

- **URL of resource CS-W metadata service**
- **resource type**
- **harvesting interval** (1 day is recommended)
- **notification e-mail**

In the list of harvested resources (see Figure 3) the last update is shown for each resource. A harvesting report is also available through RSS channel.

It is strongly recommended to denominate by the keyword „EGDI” (as free keyword) or keyword by the Project name codelists (from European Geoscience Registry <https://data.geoscience.earth/ncl/project>) any metadata record that should be harvested to the EGDI Metadata Catalogue. This should be done by the metadata editor in the source metadata catalogue.

Note: Every record is public by default after harvesting into the EGDI Metadata Catalogue. Record status is described in chapter 3.3.2 in the Record Administration paragraph in more details.

3. Manual input of metadata

The second way how to create a metadata record is the manual input directly in the EGDI Metadata Catalogue as a logged-in user with editing rights.

3.1. Import from a service URL or from a file

A metadata record can be imported by clicking “+New” in the top main menu (on <https://egdi.geology.cz/record/new> for logged-in users). If an XML file (ISO 19139) with metadata is available, choose the “Import from file/URL” option on the “New record” page and then either select the file (xml) from your disc, or enter the URL of a spatial data service (GetCapabilities).

Note: “Select file for import” has a priority if both fields (file and service URL) are filled.

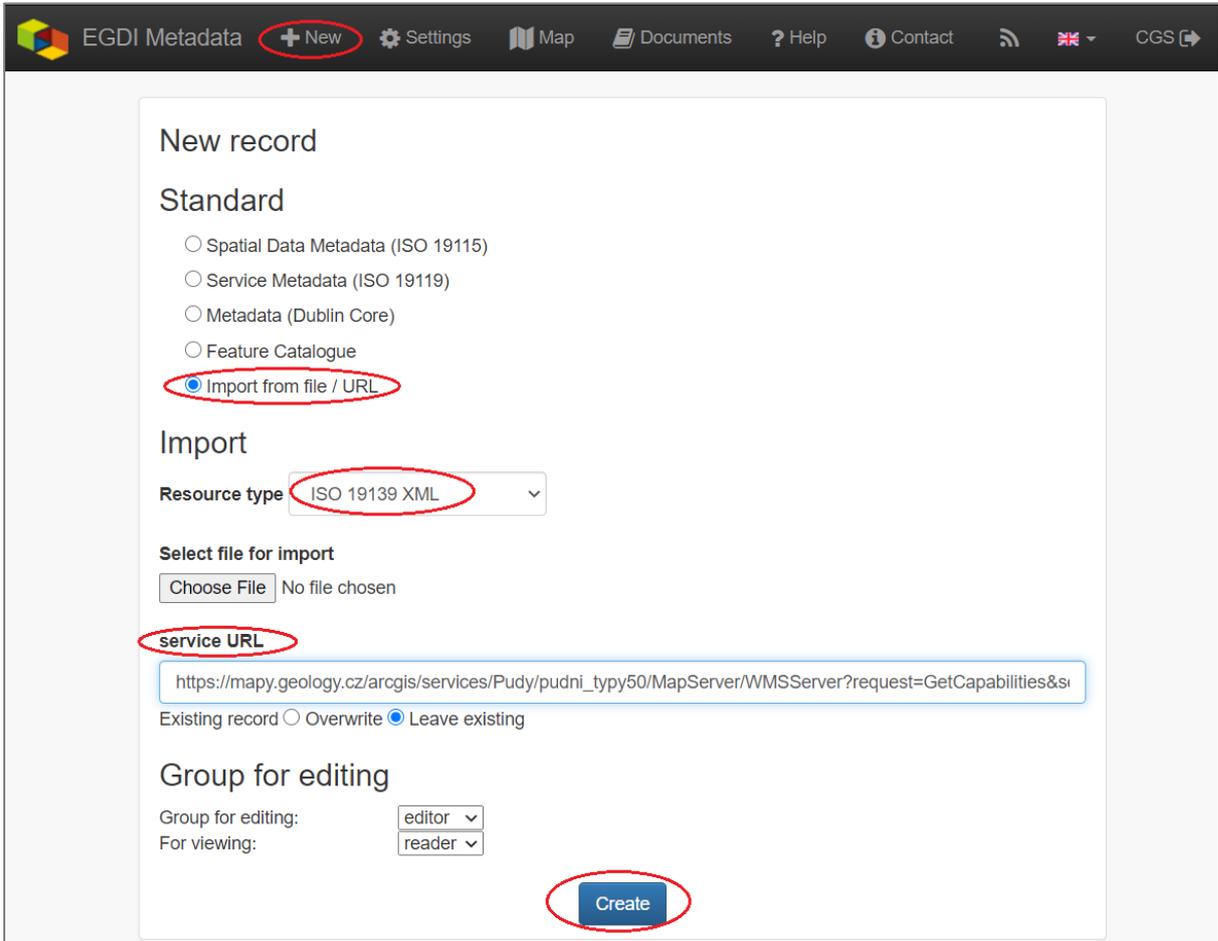


Figure 4: Import metadata from a file (xml) or a spatial data service URL (GetCapabilities)

By switching the option "Existing record: Overwrite / Leave existing" the user can set the rules for importing if the record already exists.

Depending on the amount of information you are providing in the GetCapabilities document of the service, a corresponding part of the metadata elements will be automatically filled. You have to check this after creating the record and add manually the missing ones according to the rules described further in this cookbook (chapter 3.3.5).

3.2. Copy an existing record using the editing tools

The clone icon (Figure 5) enables the user to copy an existing record and use it as a template for creating a new record (on the <https://egdi.geology.cz/> page for logged-in users).

Dataset example record:

<https://egdi.geology.cz/record/basic/5e8b7243-18b0-4d85-ab71-36680a010833>

3D model dataset example record:

<https://egdi.geology.cz/record/basic/5e8b358e-7998-4f71-a363-2b260a010833>

Service example record:

<https://egdi.geology.cz/record/basic/5e8e29b8-e334-4b30-b78b-14750a010833>

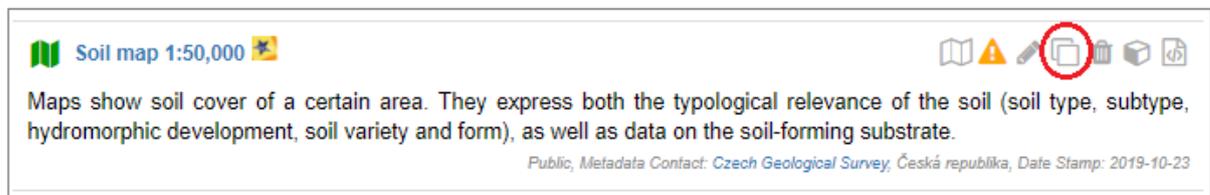


Figure 5: Copy record option

3.3. Creation of a new record

3.3.1 Primary settings

A new record is created by clicking “+New” in the top main menu. The new record creation dialogue is then displayed on the <https://egdi.geology.cz/record/new> page for logged-in users (Figure 6).

Here you should set:

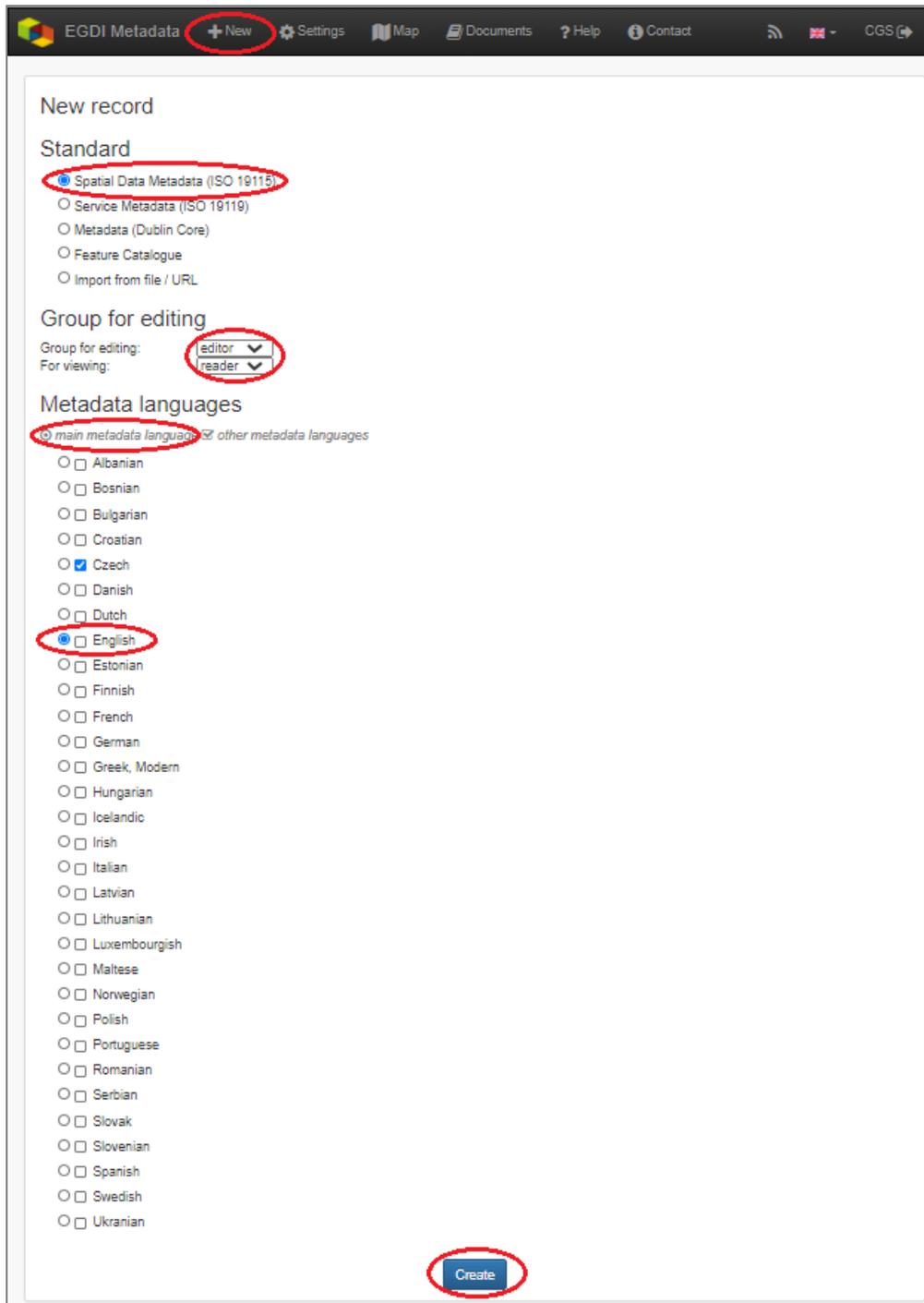
- **Standard:** you have to choose the option ISO 19115 standard (default) for spatial datasets, ISO 19119 for spatial data services.
- **Access rights:** select the group for editing and the group for viewing. The group for editing should be the **same as your username** and it should be set in the combo-box (more information in chapter 3.3.2 in the “Record administration” part).
- **Metadata languages:** the left column (radio buttons) is intended for the selection of the main language - since English was agreed as the **primary language** of the EGDI metadata, the **English language is chosen by default**. The right column (check boxes)

is intended for setting other language that will be represented in the bilingual elements. The language setting can also be edited during the editing process in the header of record via the “Metadata language” icon (Figure 7).

Then click “Create” (Figure 6).

A new blank record is created (Figure 7).

Note: To be able to save the record you have to fill the minimum required elements as it is described in chapter 3.3.3.



EGDI Metadata + New Settings Map Documents Help Contact RSS - CGS

New record

Standard

Spatial Data Metadata (ISO 19115)

Service Metadata (ISO 19119)

Metadata (Dublin Core)

Feature Catalogue

Import from file / URL

Group for editing

Group for editing: editor

For viewing: reader

Metadata languages

main metadata language other metadata languages

Albanian

Bosnian

Bulgarian

Croatian

Czech

Danish

Dutch

English

Estonian

Finnish

French

German

Greek, Modern

Hungarian

Icelandic

Irish

Italian

Latvian

Lithuanian

Luxembourgish

Maltese

Norwegian

Polish

Portuguese

Romanian

Serbian

Slovak

Slovenian

Spanish

Swedish

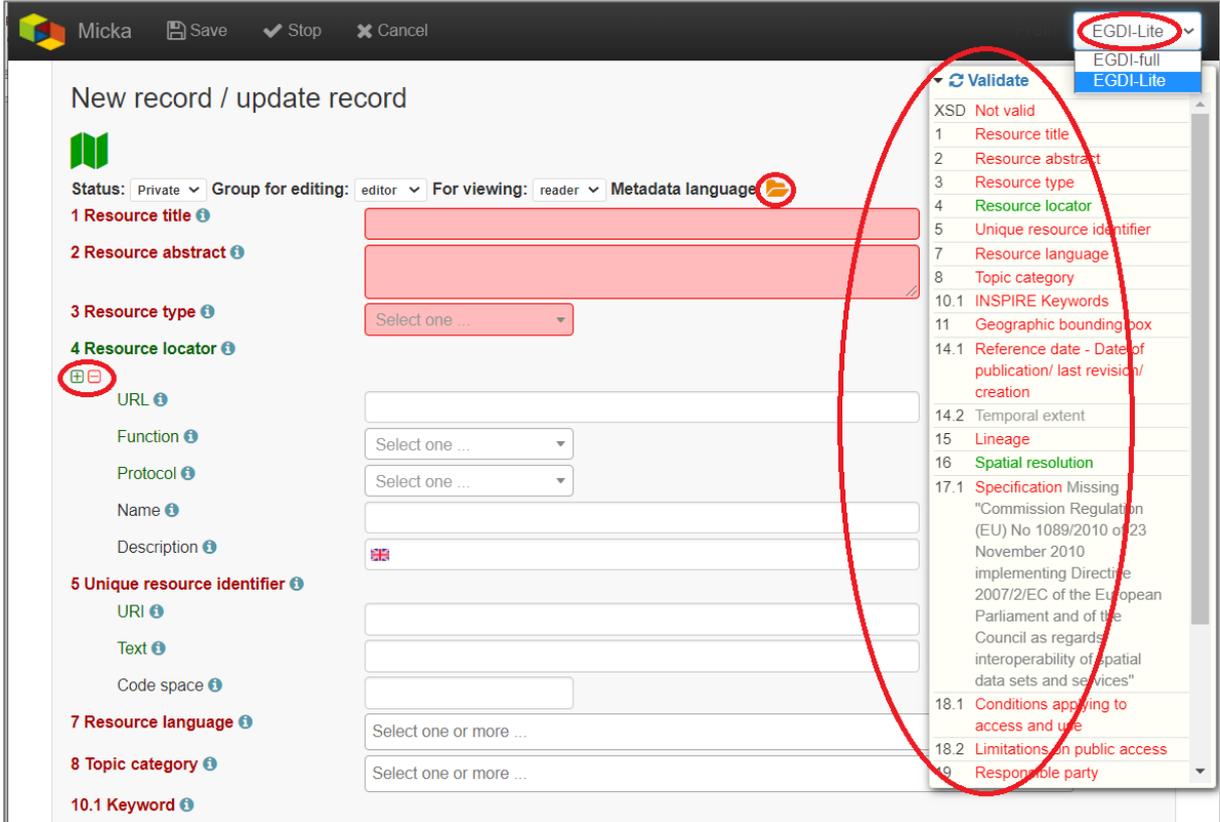
Ukrainian

Create

Figure 6: New record dialogue <https://egdi.geology.cz/record/new> for logged-in users

3.3.2 General features of the editing environment

Some important features of the EGDI Metadata Catalogue application that are useful during the whole process of record editing are explained on the next figure (Figure 7) and in the following paragraph.



The screenshot shows the 'New record / update record' interface. At the top right, a dropdown menu is open, showing 'EGDI-Lite' selected, with 'EGDI-full' and 'EGDI-Lite' as options. Below this, a 'Validate' dropdown is open, displaying a list of metadata elements and their validation status. A red circle highlights the 'Validate' dropdown and the 'EGDI-Lite' selection. The main form contains several sections: '1 Resource title', '2 Resource abstract', '3 Resource type', '4 Resource locator' (with a sub-section 'URL'), '5 Unique resource identifier', '7 Resource language', '8 Topic category', and '10.1 Keyword'. Each section has input fields and dropdown menus. The 'URL' section is highlighted with a red circle.

Figure 7: General features of the EGDI Metadata Catalogue

Metadata editing form

On the top right side of the main menu at Figure 7 you can see which editing form is displayed in the main window.

There are two editing forms available:

1. **EGDI-Lite** – set by default, user friendly, easy to fill, less options
2. **EGDI-full** – follows the ISO structure and has more options, more metadata knowledge and experience is required on the editor's side

For filling metadata according to this cookbook within the GeoERA projects you will use the EGDI-Lite editing form!

Main tools

In the top banner (Figure 8), there are the options to “**Save**” the record with the possibility to continue editing (save your record often during editing!), “**Stop**” (= Save + stop editing), and “**Cancel**” to abort the last editing session. The metadata record can be saved only if some basic **mandatory fields** are filled properly (see more in 3.3.3).



Figure 8: The main menu with tools in editing mode

Validation

A small validation panel is displayed on the right side of the form (Figure 7). To refresh validation you should “**Save**” the record or press the refresh button ().

The metadata are validated with a built-in validator, which may be configured according to the provider requirements. Default is the validation against INSPIRE TG for metadata, version 2.0.1 [3]. Only validation errors are displayed here. After clicking on the item, the page is scrolled to the corresponding input field in the form.

There are three types of elements as regards their obligation in the metadata profile:

- **Mandatory elements** - required in the profile (mandatory in its context, e.g. if an optional element A contains mandatory element B, then when any sub-element in A is used, also element B must be filled. Example: If any element in ContactInfo / on-line is filled, then the URL must be filled).
- **Conditional mandatory elements** - these elements are strongly recommended or required on certain conditions given by the standard or INSPIRE regulation. (E.g. bounding box is mandatory if data/services have a spatial extent).
- **Optional elements** - may be required by some applications.

Form field types

Different data type fields are coloured differently according to their type:

-  **Mandatory fields** - must be filled.
- **Text fields** - any text value can be input there
- **Numeric fields** - only digits and decimal point (".") are allowed.
- **Date fields** – ISO 8601 format is allowed ("YYYY", "YYYY-MM" or "YYYY-MM-DD").
- **Automatically filled fields** - 29 File identifier – generated UUID
- - predefined list of values with the possibility to select just one value
- - predefined list of values with the possibility to select more values
- - it is possible to insert manually more values

 - **Icon “Select other metadata languages from the list”** marks that there is a predefined list of values to select languages

-  - Icon creates a new empty element
-  - Icon gives the user the option to delete the related elements

Context help

Context help is taken from the INSPIRE directive in the EGDI-Lite editing form (see Figure 9 below – “1.3 Resource type...” numbering and text is taken from the INSPIRE directive). For the elements that are an extension to INSPIRE the context help is taken from ISO 19115 standard. Context help is available in the black bubble when a cursor is hovering over the field label.

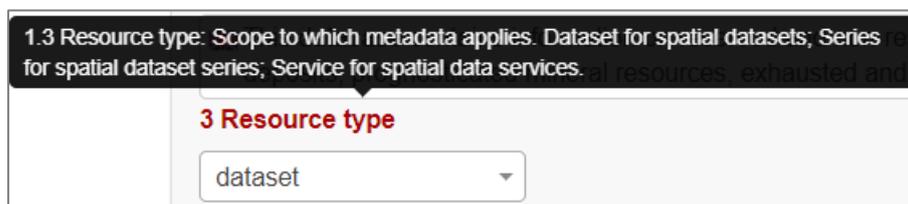


Figure 9: Item Resource type in editing mode with context help

Record administration

Editor can do this setting for each metadata record at the page sub-heading (Figure 10):

- Record “**status**” – “**Public**”/ “**Private**” - If the record is “**Public**”, every user can see it without any authorization. If it is “**Private**”, only editor and administrator can see it.
- “**Group for editing**” – the *group of your organization* should be chosen from the list
- Group “**For viewing**” – After editing this group should be set as *reader* so that all users can view the record in the catalogue.
- “**Metadata language**” - what metadata languages are used. The number of displayed language versions depends on the number of languages you selected during creation of the record but may be changed there (Figure 10).



Figure 10: Record administration (editing and viewing rights, language settings)

Note: All general features of the catalogue are described in detail in “*Micka – quick help*” directly in the application (<https://egdi.geology.cz/help>).

3.3.3 Minimum required elements for establishing a metadata record

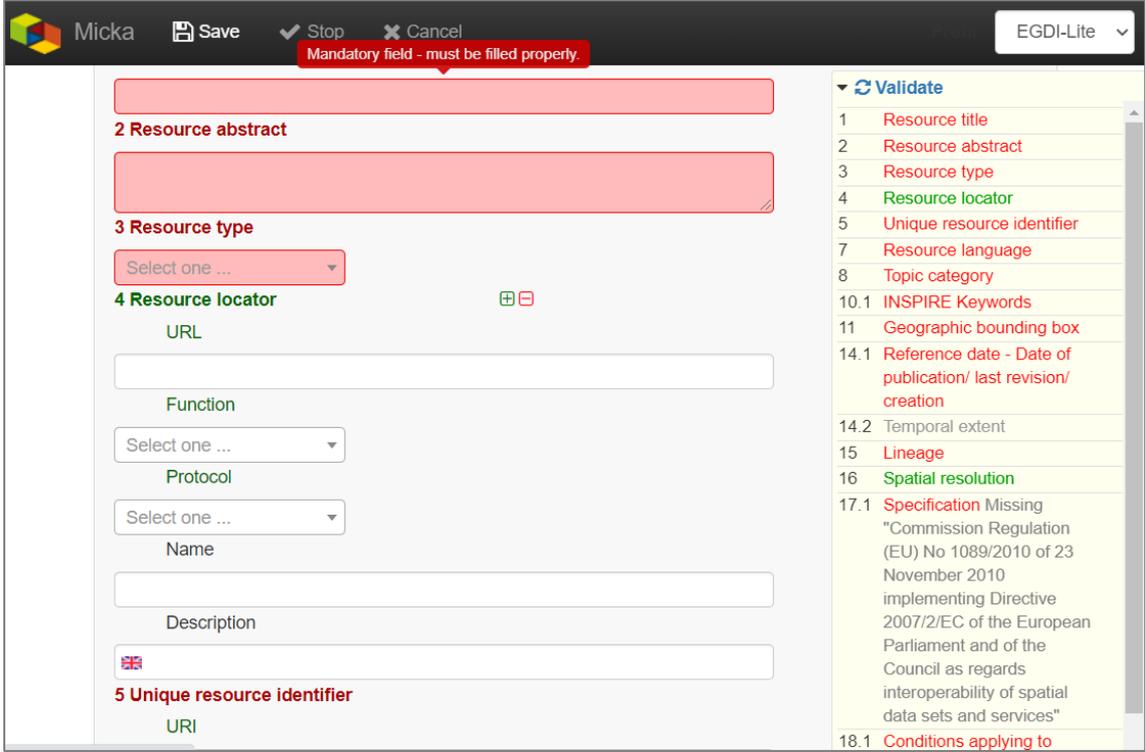
Once a record is created, a proposed minimum of the EGDI (GeoERA) metadata elements should be filled. Without these minimum items the metadata record cannot be saved:

1	Resource title
2	Resource abstract
3	Resource type
19	Responsible party
28.1.	Metadata point of contact

Table 1: Minimum required elements

It is strongly recommended to add appropriate **Project name from the European Geoscience Registry** (<https://data.geoscience.earth/ncl/project>) in the metadata element **10.1 Keyword**. The Project name codelist is implemented in the editing as well as in the search form of the EGDI Metadata Catalogue.

Note: Annex 1 shows an overview table of all the mandatory and optional metadata elements according to the described data source.



The screenshot shows the EGDI metadata editor interface. At the top, there is a toolbar with icons for 'Micka', 'Save', 'Stop', and 'Cancel', along with a 'Mandatory field - must be filled properly.' warning message. The main form area contains several fields, some of which are highlighted in red to indicate they are mandatory and missing. These fields are: '2 Resource abstract', '3 Resource type', '4 Resource locator' (with sub-fields for URL, Function, Protocol, Name, and Description), and '5 Unique resource identifier'. On the right side, there is a 'Validate' panel that lists 18 metadata elements. The first five elements (1-5) are highlighted in red, corresponding to the missing fields in the main form. The remaining elements (6-18) are highlighted in yellow.

Figure 11: Highlighting of the missing required elements

The next two chapters provide more detailed instructions on how to fill these elements for spatial datasets and spatial data services.

3.3.4 Detailed instructions for filling the EGDI metadata profile elements in the EGDI-Lite editing form for a spatial dataset (including extensions for 3D models)

Example of an English-Czech bilingual record (can be in any other national language + English).

Note: The images of all metadata elements below are created from example dataset record: <https://egdi.geology.cz/record/basic/5e8b7243-18b0-4d85-ab71-36680a010833> and 3D model dataset record: <https://egdi.geology.cz/record/basic/5e8b358e-7998-4f71-a363-2b260a010833>

1 Resource title - Name by which the cited resource is known.

1 Resource title

🇨🇪 Testovací záznam - Ložiska nerostných surovin a prognózní zdroje

🇬🇧 Test record - Mineral deposits and resources

2 Resource abstract - Brief narrative summary of the content of the resource(s).

2 Resource abstract

🇨🇪 Databáze obsahuje údaje o výhradních ložiscích, ložiscích nevyhrazených nerostů prognózních zdrojích, ložiskách a zdrojích s ukončenou těžbou,

🇬🇧 This database contains information on reserved and non-reserved mineral deposits, prognosticated mineral resources, exhausted and abandoned

3 Resource type - Valid values for the EGDI projects are dataset, series, non-geographic dataset. For 3D models choose “dataset”.

3 Resource type

dataset

Note: A different profile is used to describe **a service** or **an application**. It can be selected at the beginning of the record creation process (Figure 6 in chapter 3.3.1) and a detailed description for the filling is described in detail in chapter 3.3.5.

4 Resource locator – Electronic address (URL, their function and a relevant protocol) of an on-line access to the resource, if it exists. “Name” and “Description” are optional.

4 Resource locator ⓘ

⊕ ⊖

URL ⓘ

Function ⓘ

Protocol ⓘ

Name ⓘ

Description ⓘ

5 Unique resource identifier - Recommended format for the unique identification of the resource is the organization ID (e.g. domain name) and an identifier of the dataset defined by the data provider, e.g. http://www.domain.org/internal_identifier.

5 Unique resource identifier

URI

Text

Code space

6 Coupled resource - Not applicable for datasets, only for services - see [1]

7 Resource language – Language(s) used within the datasets/series. Select one or more from the list. If no language is used in the resource (e.g. only numeric data), select: “no language”.

7 Resource language

8 Topic category for geological and applied geological data should be set to “Geoscientific information”. But it can be selected one or more category from the code list.

8 Topic category

9 Service type - Not applicable for datasets, only for services - see [1].

10.1 Keyword(s) can be selected from the **predefined list**, some of the required external registers and codelists are integrated directly in the EGDI Metadata Catalogue. In addition to that, any other words can be filled as a **Free keyword**.

1. At least one keyword for the **INSPIRE theme** from the INSPIRE registry (<https://inspire.ec.europa.eu/theme/>) has to be filled.
2. At least one keyword from the **GeoERA keyword thesaurus** has to be filled.
3. One keyword for the **Project name** from the European Geoscience Registry (<https://data.geoscience.earth/ncl/project>) should be added. And if the dataset is related to the GeoERA project **it is strongly recommended** to add appropriate Project name to be easily searchable by Project.
4. The **Spatial scope** keyword from the INSPIRE registers (<http://inspire.ec.europa.eu/metadata-codelist/SpatialScope>) has to be selected. For INSPIRE data it is obligatory, but it is recommended for all other datasets as well.
5. **Priority dataset** keyword is mandatory only for determined datasets related to the environmental reporting within the INSPIRE directive. Keyword from the INSPIRE registers (<http://inspire.ec.europa.eu/metadata-codelist/PriorityDataset>) has to be added.
6. Any other **Free keyword** can be added here as free text as well.

10.1 Keyword

INSPIRE theme	<input type="text" value="× Energy resources"/> <input type="text" value="× Mineral resources"/>
<input type="checkbox"/> GeoERA keywords	<input type="text" value="iron ore"/> × ▾
Project name	<input type="text" value="Mintell4EU"/> × ▾
Spatial scope	<input type="text" value="National"/> × ▾
Priority dataset	<input type="text" value="× Location of industrial and agricultural installations (Industrial Emissions Directive)"/>
<input type="checkbox"/> Free keyword	<input type="text" value="EGDI"/>
	<input type="text" value="EGDI"/>

Note: For datasets of 3D models, keywords of *type stratum, temporal and discipline* are available in the EGDI-full editing form only. It is possible to add these elements as free keywords and with a properly cited Thesaurus (title, date, date type) – see figure below. **Please note that these keywords with cited thesaurus are visible in the EGDI-full editing form only, but are not visible in the EGDI-Lite form.**

▼ (3) Descriptive Keywords + + -

(3.1) keyword 🔗

🇨🇪 Horní sladkovodní molasa + + -

🇬🇧 Obere Süßwassermolasse

Type

Thesaurus Name

Title 🔗

🇨🇪 GBA Thesaurus

🇬🇧 GBA Thesaurus

Date + + -

date

Date Type

11.1 Geographic location – Defined by the western and eastern longitude and the southern and northern latitude in decimal degrees (2 digits precision) in the WGS-84 coordinate system.

There are three ways for filling this item:

1. The extent can be drawn by a tool () in the map and the coordinates will be added automatically into the form.
2. Each coordinate can be manually filled one by one
3. Choose one of the European countries or the whole EU (according to the range of data) from the **11.2 Geographic identifier** list and then the relevant coordinates will be filled in 11.1 Geographic location automatically.

11.1 Geographic location



11.2 Geographic identifier

x ▼

Note: If you select a country from the list for the element **11.2 Geographic identifier**, then item **10.1 Keyword/Spatial Scope** is filled in as follows: "**National**". If you select "European Union" or "Europe", Spatial Scope will be set automatically to "**European**". If you want to save another Spatial Scope, you must then change it manually.

11.2 Geographic identifier: Fill in only when Spatial Scope is not local or regional. Then select from the code list value (for example: one of the European Countries, "Europe", "World" or "European Union"). The selection automatically affects the coordinates in the field 11.1 Geographic location.

12 Presentation form – Mandatory for 3D models. "**Model digital**" should be chosen from the codelist and then the validation rules are changed to meet the requirements for the metadata description of 3D models.

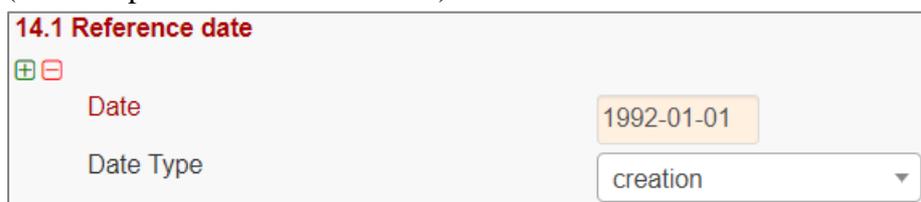


Note: Value "**Model digital**" is mandatory for **3D models**. When it is chosen from the codelist the validation rules are changed to meet the requirements for the metadata description of 3D models. You can choose value "Model digital" also for your **2D dataset** and then the vertical items **22 Vertical reference system** and **23 Vertical extent** are not relevant, these items are required just for 3D models.

13 Edition - Conditional for **3D models**, mandatory, if there are/will be more versions of the model.



14.1 Reference date - Date (YYYY-MM-DD) of the data source creation must be filled, optionally also other types of reference dates can be added. Only one date for each event (creation/publication/last revision) is allowed.



14.2 Resource temporal extent - If the resource has a temporal extent, you can specify either a range of dates relevant for the dataset, or a single date. To enter instant date (YYYY-MM-DD or YYYY) leave the second field empty. In case the time period is open-ended with either

the start or the end date unknown, enter “?” to the corresponding field. If the temporal extent is on-going, enter “now” to the corresponding field.

14.2 Resource temporal extent	1992	-	now	Filling instructions
--------------------------------------	------	---	-----	--------------------------------------

15 Lineage description of the history of processing and the overall quality of the dataset, including information on the input data, SW used, if the data/model has been approved etc.

15 Lineage	<div style="border: 1px solid #ccc; padding: 2px;"> Subsystem SurIS was created in the 1990s at the National Information Centre of the Czech Republic. Most of its databases contain coordinates that are usable in map applications. </div> <div style="border: 1px solid #ccc; padding: 2px;"> SurIS was developed in the 1990s at the National Information Centre of the Czech Republic. Most of its databases contain coordinates that are usable in map applications. </div>
-------------------	---

16 Spatial resolution can be described by the equivalent scale (denominator only) or by a distance in meters.

16 Spatial resolution	<div style="border: 1px solid #ccc; padding: 2px;"> Scale 1: <input type="text" value="x25000"/> </div> <div style="border: 1px solid #ccc; padding: 2px;"> Distance <input type="text" value="Select one or more (own values + Enter)"/> </div>
------------------------------	--

Note: Also a range of scales can be added by simply typing another scale number

17 Conformity - Citation of the implementing rules adopted according to the Article 7, section 1 of the 2007/2/ES Directive (INSPIRE). Appropriate **17.1 Specification** of a document you are referring to should be select from the predefined list; for the dataset “INSPIRE – Interoperability 1089/2010” is the right value. If the dataset or dataset series are not within the scope of INSPIRE, fill in the citation of the Directive and then the element 17.2 will have the value “NOT EVALUATED”.

17 Conformity	<div style="border: 1px solid #ccc; padding: 2px;"> </div> <div style="border: 1px solid #ccc; padding: 2px;"> 17.1 Specification <input type="text" value="INSPIRE - Interoperability 1089/2010"/> </div> <div style="border: 1px solid #ccc; padding: 2px;"> 17.2 Degree <input type="text" value="NOT EVALUATED"/> </div>
----------------------	--

18.1 Conditions applying to access and use restrictions on the access and use of a resource or metadata, licences, fees of the dataset and other conditions (field **Other – description**) shall be provided, if applicable (text description or a URL of a descriptive document). If no conditions apply, or are unknown then you can select these values (as well as the type of licence) from the codelist.

18.1 Conditions applying to access and use

Predefined

Other - description

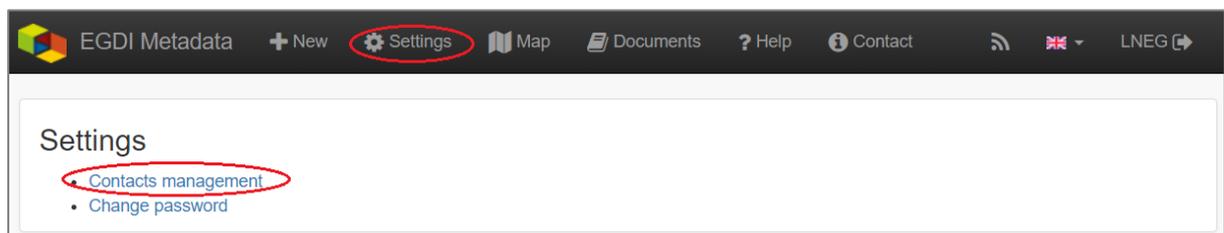
18.2 Limitations on public access – Description of a reason of a limitation on public access to a dataset or a service according to the Article 13 of the 2007/2/ES Directive should be filled in the **Predefined** field by choosing from the codelist. Also, other conditions (**Other - description** field) can be filled as a free text. You can also mark the data as “open data” in this element.

18.2 Limitations on public access

Predefined

Other - description

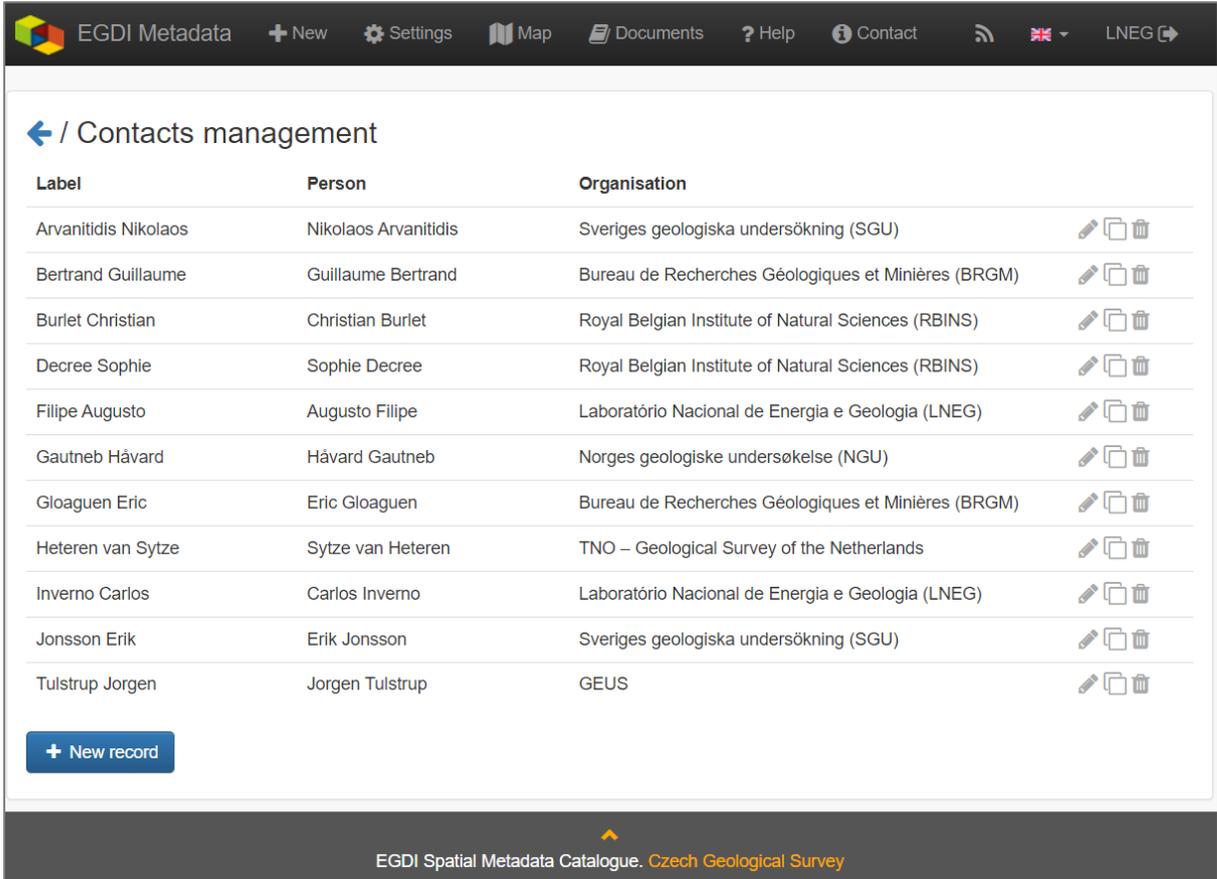
19 Responsible party – Contact person/organisation can be filled item by item (Enter key confirms typing) or edited once in “Settings” on the <https://egdi.geology.cz/admin/contacts/> page for logged-in users (Figure 12) and then used in more metadata records.



EGDI Metadata + New Settings Map Documents ? Help Contact

Settings

- Contacts management
- Change password



EGDI Metadata + New Settings Map Documents Help Contact LNEG

← / Contacts management

Label	Person	Organisation	
Arvanitidis Nikolaos	Nikolaos Arvanitidis	Sveriges geologiska undersökning (SGU)	  
Bertrand Guillaume	Guillaume Bertrand	Bureau de Recherches Géologiques et Minières (BRGM)	  
Burlet Christian	Christian Burlet	Royal Belgian Institute of Natural Sciences (RBINS)	  
Decree Sophie	Sophie Decree	Royal Belgian Institute of Natural Sciences (RBINS)	  
Filipe Augusto	Augusto Filipe	Laboratório Nacional de Energia e Geologia (LNEG)	  
Gautneb Håvard	Håvard Gautneb	Norges geologiske undersøkelse (NGU)	  
Gloaguen Eric	Eric Gloaguen	Bureau de Recherches Géologiques et Minières (BRGM)	  
Heteren van Sytze	Sytze van Heteren	TNO – Geological Survey of the Netherlands	  
Inverno Carlos	Carlos Inverno	Laboratório Nacional de Energia e Geologia (LNEG)	  
Jonsson Erik	Erik Jonsson	Sveriges geologiska undersökning (SGU)	  
Tulstrup Jorgen	Jorgen Tulstrup	GEUS	  

+ New record

EGDI Spatial Metadata Catalogue. Czech Geological Survey

Figure 12: Contacts management for logged-in users (<https://egdi.geology.cz/admin/contacts/>)

Name of **Organization** should be entered in English (and in national language if it is defined as the second language). It is recommended to add organization’s abbreviation in the parentheses at the end, for example “Czech Geological Survey (CGS)”.

Note: The Codelist of the EuroGeoSurveys’ organizations (URL) is under preparation – then it will be possible to choose the organization name from this list.

Email field should be filled as well and **Role** field value must be set to “**custodian**”. This optional field is important for an effective use of metadata search.

Other contacts can be added in the same way by multiplying the whole element 19, filling the necessary information and setting the role to “**distributor**” (distribution information), “**point of contact**” (information about data), etc.

19 Responsible party	
Person	Select one ...
Organisation	<input type="text" value="Česká geologická služba"/> <input type="text" value="Czech Geological Survey"/>
Delivery Point	<input type="text" value="Klárov 3"/>
City	<input type="text" value="Praha 1"/>
Postal Code	<input type="text" value="118 21"/>
Country	<input type="text" value="Česká republika"/>
Phone	<input type="text" value="+420257089411"/>
Email	<input type="text" value="metadata@geology.cz"/>
WWW	<input type="text" value="http://www.geology.cz/"/>
Role	<input type="text" value="custodian"/>

20 Data quality scope – Is not displayed in the EGDI-Lite form and is automatically filled in accordance with element **3 Resource type**.

21 Coordinate reference system - Description of the coordinate reference system(s) used in the dataset. Select one or more from the list. INSPIRE compliant value have the denomination [INSPIRE] in square brackets at the end of the coordinate reference system abbreviation.

21 Coordinate reference system
<input type="text" value="× ETRS-LCC (3034) [INSPIRE]"/>

22 Vertical reference system - mandatory for **3D models**. Description of the vertical reference system used in the dataset. Select one or more from the list.

22 Vertical reference system
<input type="text" value="× Baltic 1957"/>

23 Vertical extent - Conditional for **3D models**. Vertical limits of the model interlinked with the reference system in element **23.3 Vertical extent reference system** - local system or a defined vertical coordinate system. For describing the model depth in a local system, choose **Local - depth** (EPSG code 1049) and enter positive values of vertical limits (Z axis is in the direction from the surface to the Earth's core).

23 Vertical extent	min <input type="text" value="500"/>	max <input type="text" value="2500"/>	Filling instructions
23.3 Vertical extent reference system	<input type="text" value="Local - depth"/>		

24 Distribution format - The value can be either selected from the codelist, or entered as a free text (especially in the case of a specialized modelling SW).

24 Distribution format

Format

Version

25 Spatial representation type - Method used to spatially represent geographic information. Select one or more from the list.

25 Spatial representation type

vector

26 Maintenance and update frequency - Provides information about the frequency of resource updates, and the scope of those updates.

26 Maintenance and update frequency

Frequency

User defined frequency

***Note:** If the desired interval is not present in the Frequency codelist, choose the value “unknown” and in the user defined frequency element fill the appropriate interval in accordance with the ISO 8601: P<number><period>, where period is Y – year, M-month, D-day, H-hour, for ex. “P5Y” denominates the period of 5 years.*

27 Purpose - Summary of purposes for which the data source was created (internal project identifier, scope, type of data/model, etc.).

27 Purpose

Shromažďování a poskytování veškerých dostupných údajů o nerostném surovinovém potenciálu v ČR.

Collection and providing all available data of Mineral potential in the country.

28.1 Metadata Contact - Organization responsible for creating and maintenance of metadata. Contact person/organisation can be filled item by item (Enter button confirms typing) or edited once in “**Settings**” (Figure 12) and then used in more metadata records. **Email** field should be filled as well and **Role** field value must be set to “**Point of contact**”.

28.1 Metadata point of contact

Person	Mgr. Pavla Kramolišová
Organisation	Česká geologická služba Czech Geological Survey
Delivery Point	Klárov 131/3
City	Praha 1
Postal Code	118 21
Country	Česká republika
Phone	+420257089452
Email	pavla.kramolisova@geology.cz
WWW	http://www.geology.cz/personal/p/pavla.kramolisova
Role	point of contact

28.2 Metadata date - Date stamp (date of last editing) is created automatically.

28.3 Metadata language - Metadata language can be administered in the sub-heading of the record (see chapter 3.3.2).

Status: Private Group for editing: editor For viewing: reader Metadata language: 

29 File identifier - Identifier of the metadata file is generated automatically as UUID.

29 File identifier

5e6798e2-277c-4ef4-87cc-6ffa0a010833

30 Parent identifier – Unique identifier of the parent metadata record can be chosen from the list of existing metadata records in the catalogue (e.g. if a dataset belongs to a data set serie). Parent should be filled first in the EGDI Metadata Catalogue and then it will appear in the list and will be available for all editors to choose it as the parent record.

30 Parent identifier

Mineral information system (SurlS)

*Note: More details about linking metadata through the items **30 Parent identifier** and **31 Sources** is described within document **FAQ, Question 9***

(https://egdi.geology.cz/layout/egdi/EGDI_faq.pdf).

31 Sources - Sources used for the resource creation (lineage). These resources could be selected from the list of metadata records. For external sources fill the URL address of the metadata xml (e.g <https://geology.cz/record/xml/9df8df5...ba9b0d98>).



Note: To complete the editing, it is necessary to go through the steps in the chapter 3.3.6

3.3.5 Detailed instructions for filling the EGDI profile elements in the EGDI-Lite editing form for a spatial data service/application

Example of an English-Czech bilingual record (can be in any other national language + English).

Note: The images of all metadata elements below are created from example service record: <https://egdi.geology.cz/record/basic/5e8e29b8-e334-4b30-b78b-14750a010833>

1 Resource title - Name by which the cited resource is known.

1 Resource title

	Testovací záznam - Ložiska nerostných surovin a prognózní zdroje
	Test record - Mineral deposits and resources

2 Resource abstract - Brief narrative summary of the content of the resource(s).

2 Resource abstract

	WMS služba zpřístupňuje základní informace o ložiskách nerostných surovin a prognózních zdrojích, chráněných ložiskových územích, o	▲ ▼
	A WMS service provides the access to basic information on mineral deposits and prognosticated resources in the territory of the Czech	▲ ▼

3 Resource type - Valid values for the EGDI projects are service and application.

3 Resource type

service ▼

Note: A different profile is used for a dataset. It can be selected at the beginning of the record creation process (Figure 6 in chapter 3.3.1) and detailed descriptions for the filling are described in detail in chapter 3.3.4.

4 Resource locator – Electronic address (URL, their function and a relevant protocol) of an on-line access to the resource, if it exists. “Name” and “Description” are optional.

4 Resource locator ⓘ

⊕ ⊖

URL ⓘ

Function ⓘ

Protocol ⓘ

Name ⓘ

Description ⓘ

5 Unique resource identifier - Recommended format for the unique identification of the resource is organization ID (e.g. domain name) and identifier of the dataset defined by the data provider, e.g. http://www.domain.org/internal_identifier.

5 Unique resource identifier

URI

Text

Code space

6 Coupled resource - Only for services, not applicable for datasets. Provides information on the datasets that the service operates on, the appropriate entry should be selected from the list of value. Dataset should be described in the EGDI Metadata Catalogue first and then the name of the metadata record will appear in the list (in primary language of the metadata). List will be available for all editors to choose it as the resource. **6.2. Coupling type** is mostly „tight”, when the service works directly with specific data.

6.1 Coupled resource

6.2 Coupling type

7 Resource language – Not applicable for services, only for datasets - see [1]

8 Topic category - Not applicable for services, only for datasets - see [1]

9 Service type - Only for services, not applicable for datasets. A service type name select from the codelist.

9 Service Type

Keyword can be selected from the **predefined list**, some of the required external registers and codelists are integrated directly into the EGDI Metadata Catalogue. In addition to that, any other words can be filled as a **Free keyword**.

1. **INSPIRE service** classification from the INSPIRE registry (<https://inspire.ec.europa.eu/metadata-codelist/SpatialDataServiceCategory>) should be selected from the codelist.
2. At least one keyword for the **INSPIRE theme** from the INSPIRE registry (<https://inspire.ec.europa.eu/theme/>) has to be filled.
3. At least one keyword from the **GeoERA keyword** thesaurus has to be filled.
4. One keyword for the **Project name** from the European Geoscience Registry (<https://data.geoscience.earth/ncl/project>) should be added. And if the service is related to the GeoERA project **it is strongly recommended** to add appropriate Project name to be easily searchable by Project.
5. Any other **Free keyword** can be added here as free text as well.

10.1 Keyword

INSPIRE service	Geographic viewer
INSPIRE theme	* Mineral resources
GeoERA keywords	* mineral deposit
Project name	Mintell4EU
Free keyword	EGDI
	EGDI
Free keyword	zásoby nerostů
	Mineral reserves

11.1 Geographic location – Defined by the western and eastern longitude and southern and northern latitude in decimal degrees (2 digits precision) in the WGS-84 coordinate system.

There are three ways for filling this item:

1. The extent can be drawn by a tool () in the map and the coordinates will be added automatically into the form.
2. Each coordinate can be manually filled one by one
3. Choose one of the European countries or the whole EU (according to the range of data) from the **11.2 Geographic identifier** list and then the relevant coordinates will be filled in 11.1 Geographic location automatically.

Note: If metadata record of the service was imported from the **GetCapabilities** file from the map server, **11.1 Geographic location is filled in automatically**

11.1 Geographic location



11.2 Geographic identifier

11.99	48.253	18.91	51.247
-------	--------	-------	--------

Czech Republic

11.2 Geographic identifier: Fill in only when Spatial Scope is not local or regional. Then select from the list value (for example: European Country, “Europe”, “World” or “European Union”).

12 Presentation form – Not applicable for services, only for datasets - see [1]

13 Edition - Not applicable for services, only for datasets - see [1]

14.1 Reference date - Date (YYYY-MM-DD) of creation must be filled, optionally also other types of reference dates can be added (publication date/date of the last revision).

14.1 Reference date

Date

Date Type

14.2 Resource temporal extent - if the resource (service) has a temporal extent, you can specify either a range of dates relevant for the service, or a single date. To enter instant date (YYYY-MM-DD or YYYY) leave the second field empty. In case the time period is open-ended with either the start or the end date unknown, enter “?” to the corresponding field. If the temporal extent is on-going, enter “now” to the corresponding field.

14.2 Resource temporal extent - [Filling instructions](#)

15 Lineage - Not applicable for services, only for datasets - see [1]

16 Spatial resolution - Not applicable for services, only for datasets - see [1]

17 Conformity - Citation of the implementing rules adopted according to the Article 7, section 1 of the 2007/2/ES Directive (INSPIRE). Appropriate **17.1 Specification** of a document you are referring to should be select from the predefined list, for the service “**INSPIRE – Network services 976/2009**” is the right value. If the service is not within the scope of INSPIRE, fill in the citation of the Directive and then the element 17.2 will have the value “NOT EVALUATED”.

17 Conformity	
17.1 Specification	INSPIRE - Network services 976/2009
17.2 Degree	NOT EVALUATED

18.1 Conditions applying to access and use - Constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations or warnings on using the resource or metadata. If no conditions apply or are unknown, then you can select these values (as well as type of licence) from the list.

18.1 Conditions applying to access and use	
Predefined	* no conditions apply
Other - description	
	

18.2 Limitations on public access – Description of a reason of a limitation on public access to a dataset or a service according to the Article 13 of the 2007/2/ES Directive should be filled in the **Predefined** field by choosing from the list. Also, other conditions (**Other - description** field) can be filled as a free text. You can also mark the data as “open data” in this element.

18.2 Limitations on public access	
Predefined	* no limitations to public access
Other - description	 volný přístup na internetu
	 free internet access

19 Responsible party – Contact person/organisation can be filled item by item (Enter key confirms typing) or edited once in “**Settings**” on the <https://egdi.geology.cz/admin/contacts/> page for logged-in users (Figure 12) and then used in more metadata records.

Name of **Organization** should be entered in English (and in national language if it is defined as the second language) It is recommended to add organization’s abbreviation in the parentheses at the end, for example “Czech Geological Survey (CGS)”.

Note: The Codelist of the EuroGeoSurveys’ organizations (URL) is under preparation – then it will be possible to choose the organization name from this list.

Email field should be filled as well and **Role** field value must be set to “**custodian**”. This optional field is important for an effective use of metadata search.

Contact information for distribution of data can be added in the same way (by multiplying the whole element 19, filling the necessary information and setting the role to “**distributor**”).

19 Responsible party	
Person	Select one ...
Organisation	<input type="text" value="Česká geologická služba"/> <input type="text" value="Czech Geological Survey"/>
Delivery Point	<input type="text" value="Klárov 3"/>
City	<input type="text" value="Praha 1"/>
Postal Code	<input type="text" value="118 21"/>
Country	<input type="text" value="Česká republika"/>
Phone	<input type="text" value="+420257089411"/>
Email	<input type="text" value="metadata@geology.cz"/>
WWW	<input type="text" value="http://www.geology.cz/"/>
Role	<input type="text" value="custodian"/>

20 Data quality scope – Not applicable for services, only for datasets - see [1]

21 Coordinate reference system - Description of the coordinate reference system(s) used in the service. Select one or more from the list. INSPIRE compliant value have the denomination [INSPIRE] in square brackets at the end of the coordinate reference system abbreviation.

21 Coordinate reference system
<input type="text" value="× ETRS-LCC (3034) [INSPIRE]"/>

22 Vertical reference system - Mandatory for **3D models**. Description of the vertical reference system used in the service. Select one or more from the list.

22 Vertical reference system
<input type="text" value="× Baltic 1957"/>

23 Vertical extent - Not applicable for services, only for datasets - see [1]

24 Distribution format - Not applicable for services, only for datasets - see [1]

25 Spatial representation type - Not applicable for services, only for datasets - see [1]

26 Maintenance and update frequency - Not applicable for services, only for datasets - see [1]

27 Purpose - Not applicable for services, only for datasets - see [1]

28.1 Metadata Contact - Organization responsible for creating and maintenance of metadata. Contact person/organisation can be filled item by item (Enter button confirms typing) or edited once in Settings (Figure 12) and then used in more metadata records. **Email** field should be filled as well and **Role** field value must be set to “**Point of contact**”.

28.1 Metadata point of contact	
Person	Mgr. Pavla Kramolišová
Organisation	Česká geologická služba Czech Geological Survey
Delivery Point	Klárov 131/3
City	Praha 1
Postal Code	118 21
Country	Česká republika
Phone	+420257089452
Email	pavla.kramolisova@geology.cz
WWW	http://www.geology.cz/personal/p/pavla.kramolisova
Role	point of contact

28.2 Metadata date

Date stamp (date of last editing) is created automatically.

28.3 Metadata language

Metadata language can be administered in the sub-heading of the record (see chapter 3.3.2).

Status:	Private	Group for editing:	editor	For viewing:	reader	Metadata language:	
---------	---------	--------------------	--------	--------------	--------	--------------------	---

29 File identifier - Identifier of the metadata file is generated automatically as UUID.

29 File identifier

5e6798e2-277c-4ef4-87cc-6ffa0a010833

30 Parent identifier - Not applicable for services, only for datasets - see [1]

31 Sources - Not applicable for services, only for datasets - see [1]

3.3.6 Important steps at the end of the editing process

Save and check the validation status and then **stop and save editing mode** by the tool “**Stop**” in the main menu (Figure 13)!



Figure 13: Main menu in editing mode

Metadata record publication

After filling and saving the metadata record, please check that it is made **public** and Group for viewing is set as **reader** by checking the appropriate checkbox (Figure 14) at the page sub-heading, so that all users can search and view the record.



Figure 14: Making the metadata record publicly available

Metadata record backup

After finishing your editing session, please always create an XML file of your record as a backup copy for yourself from the basic metadata view for the logged-in users (Figure 15), just to make sure you do not lose any of your metadata in any case:

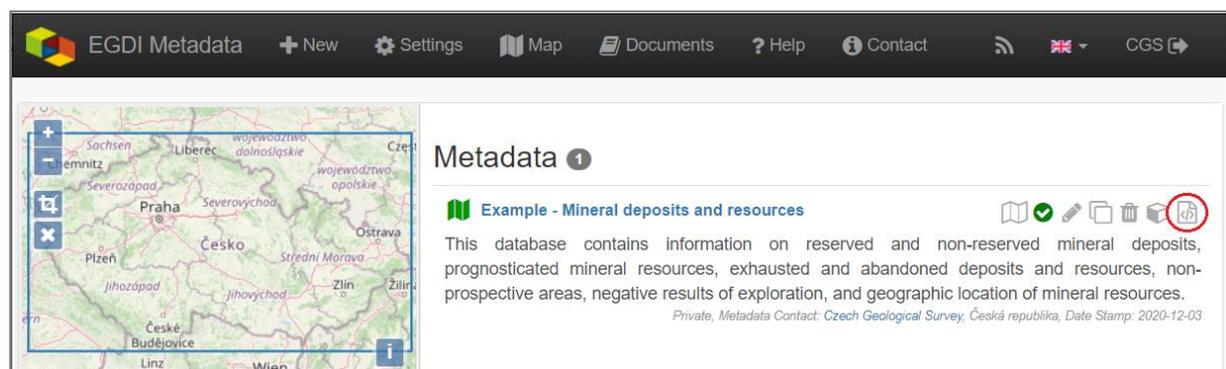


Figure 15: Record backup – icon for XML creating

Metadata Cookbook availability

This document “Cookbook for creating metadata records using the EGDI Metadata Catalogue (MIcKA, version 6.0)” and document “EGDI Metadata profile” (reference [1]) is integrated directly in the EGDI Metadata Catalogue (<https://egdi.geology.cz/catalog/micka/docs>) for

authorized users and it is also available on the GitHub as MICKA Documentation <https://czechgeologicalsurvey.github.io/MICKA-Docs/> and on the GeoERA Data provider support webpage (<https://geoera-gip.github.io/support/>).

3.3.7 Additional information for advanced users

EGDI-full editing form

The **EGDI-full** editing environment (Figure 16) is also available to use for creating metadata within the EGDI Metadata Catalogue. The EGDI-full editing form follows the ISO structure and has more options. Advanced metadata knowledge and experience is required on the editor's side, so it is **NOT RECOMMENDED** for beginners. If anyone would like to use it, please contact us with any issues and concerns on egdi.metadata@geology.cz.

For filling metadata according to this cookbook within the GeoERA projects **it is strongly recommended to use the EGDI-Lite editing form.**

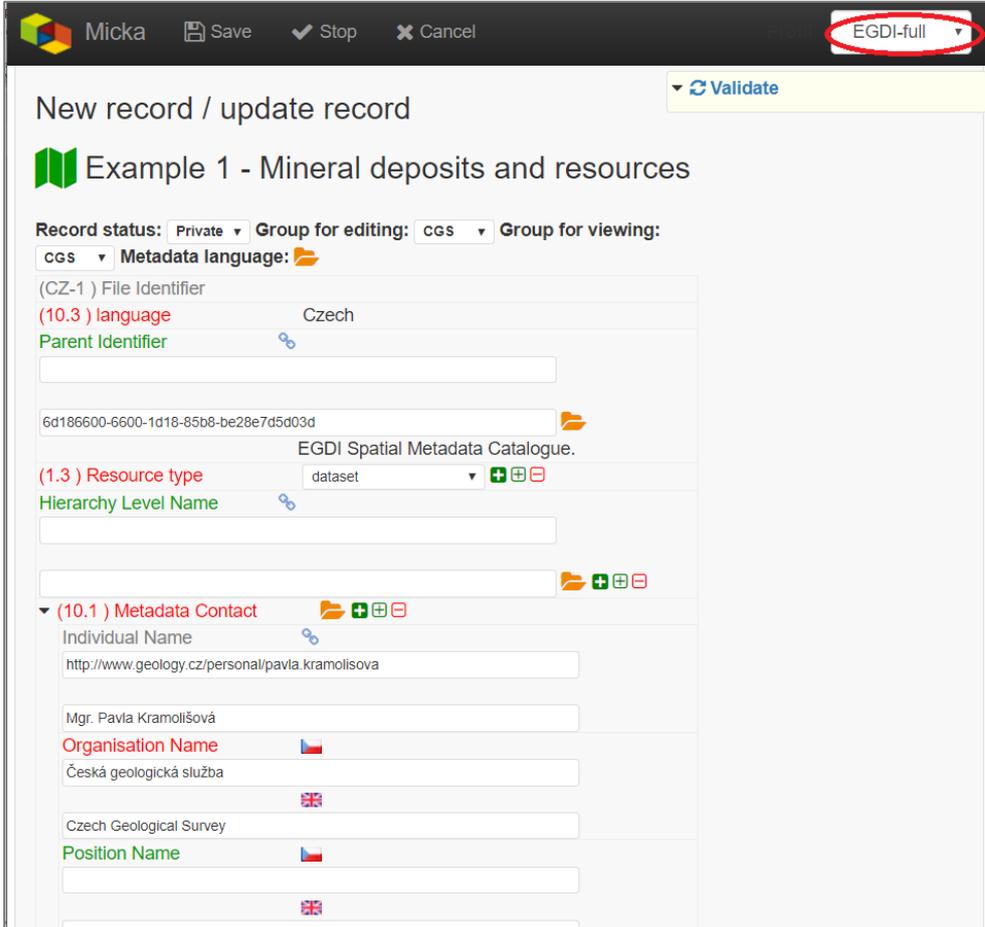


Figure 16: The EGDI-full editing form for advanced editors

ANNEX: Overview of required and optional metadata items for different data sources

EGDI profile nr.	INSPIRE profile nr.	MD element title	mandatory minimum	Obligation/condition according to described data source [Maximum occurrence]		
			All metadata sources	“2D” dataset	3D model	Service, application
1	1.1	Resource title	[1]	[1]	[1]	[1]
2	1.2	Resource abstract	[1]	[1]	[1]	[1]
3	1.3	Resource type	[1]	[1]	[1]	[1]
4	1.4	Resource locator		[0..*]	[0..*]	[0..*]
5	1.5	Unique resource identifier		[1..*]	[1..*]	[1..*]
6.1	1.6	Coupled resource		not applicable	not applicable	[0..*]
6.2		Coupling type		not applicable	not applicable	[1]
7	1.7	Resource language		[1..*]	[1..*]	not applicable
8	2.1	Topic category		[1..*]	[1..*]	not applicable
9	2.2	Service type		not applicable	not applicable	[1]
10.1	3.1	Keyword		[1..*]	[1..*]	[1..*]
10.2	3.2	Originating controlled vocabulary		[1..*]	[1..*]	[1..*]
11.1	4.1	Geographic location		[1..*]	[1..*]	[1..*]
11.2		Geographic identifier		[0..*]	[0..*]	[0..*]
12		Presentation form		[0..*]	[1..*]	not applicable
13		Edition		[0..*]	[0..*]	not applicable
14.1	5	Reference date		[1..*]	[1..*]	[1..*]
14.2	5.1	Resource temporal extent		[0..*]	[0..*]	[0..*]
15	6.1	Lineage		[1]	[1]	not applicable
16	6.2	Spatial resolution - Scale/Distance		[0..*]	[0..*]	not applicable
17.1	7.1	Conformity – Specification		[1..*]	[1..*]	[1..*]

17.2	7.2	Conformity Degree	-	[1]	[1]	[1]
18.1	8.1	Conditions applying to access and use		[1..*]	[1..*]	[1..*]
18.2	8.2	Limitations on public access		[1..*]	[1..*]	[1..*]
19	9.1	Responsible party	[1]	[1..*]	[1..*]	[1..*]
20	12	Data quality scope		[1]	[1]	not applicable
21	IOD-1*	Coordinate reference system		[1..*]	[1..*]	[0..*]
22		Vertical reference system		[1]	[1]	[0..*]
23.1		Vertical extent – max. model depth		not applicable	[1]	not applicable
23.2		Vertical extent – min. model depth		not applicable	[1]	not applicable
23.3		Vertical extent reference system		not applicable	[1]	not applicable
24	IOD-3*	Distribution format		[1..*]	[1..*]	not applicable
25	IOD-6*	Spatial representation type		[1..*]	[1..*]	not applicable
26		Maintenance and update frequency		[0..1]	[0..1]	not applicable
27		Purpose		[0..1]	[0..1]	not applicable
28.1	10.1	Metadata point of contact	[1]	[1..*]	[1..*]	[1..*]
28.2	10.2	Metadata date		[1]	[1]	[1]
28.3	10.3	Metadata language		[1..*]	[1..*]	[1..*]
29	2.2.1	File identifier		[1]	[1]	[1]
30		Parent identifier		[0..1]	[0..1]	not applicable
31		Sources		[0..*]	[0..*]	not applicable

*Metadata elements marked with the “IOD” prefix are metadata elements for interoperability as defined in INSPIRE data specifications

References

- [1] L. Kondrová, Š. Kafka, G. Diepolder, O. Moravcová, P. Kramolišová. *EGDI Metadata profile Methodology for the unified metadata description of the results of GeoERA projects within the European Geological Data Infrastructure (EGDI) with the extension to describe 3D geological models*, version 1.2, 2020-03-19
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