INSPIRE in eArchiving v okviru Digital Europe

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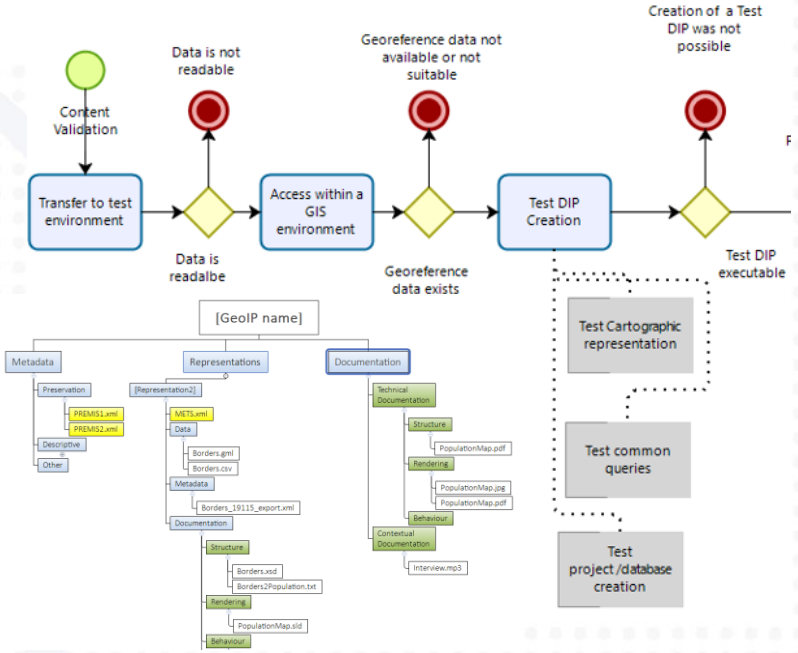
www.geoarh.si

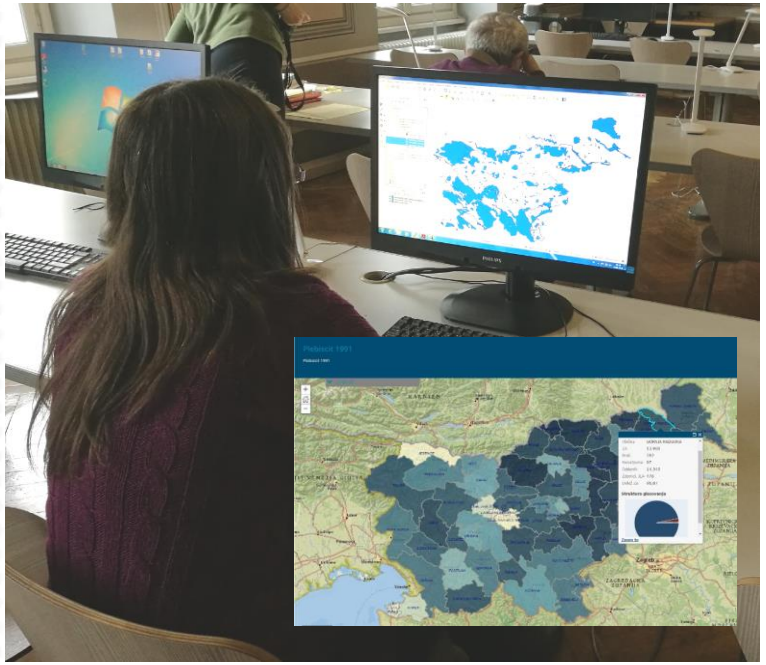
REPUBLIKA SLOVENIJA
MINISTRSTVO ZA OKOLJE IN PROSTOR
GEODETSKA UPRAVA REPUBLIKE SLOVENIJE

Pregled

- Uvod
- Kaj je eArchiving in kako podpira Digital Europe
- eArchiving specifikacije za prostorske podatke in GIS sisteme
- Kje organizacije uporabljajo eArchiving?

Kaj je Geoarh?



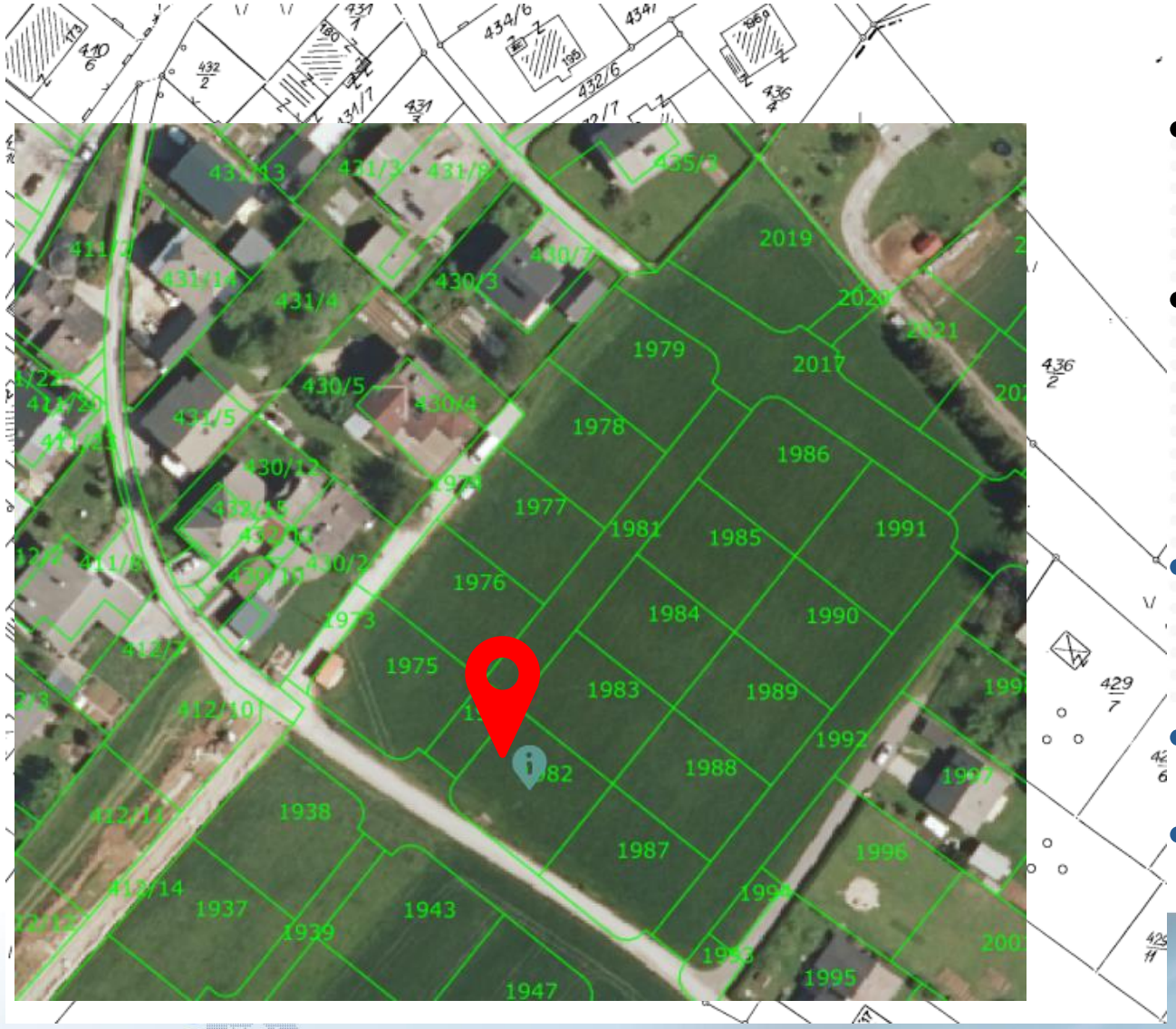


Izobraževanje in svetovanje za trajnostni dostop do podatkov

Svetovanje in razvoj trajnostno naravnanih in učinkovitih GIS sistemov

Rešitve za dolgoročno hrambo in ponovno uporabo

Pomen trajnostnega dostopa do podatkov



- Vodno dovoljenje je izdano leta 2005
- Prostorsko je dovoljenje umeščeno s številko parcele.

- A danes (2022) ta parcela ne obstaja več!
- Ali jo lahko najdemo?
- Koliko časa za to porabimo?

Kaj je eArchiving?

<https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eArchiving>

eArchiving

Olajša dolgoročno hrambo,

migracijo, ponovno uporabo
in zaupanje v vaše podatke.

Standardne specifikacije

- **E-ARK** splošne Specificije za Informacijske pakete:
  - Submission (**METS**)
  - Archive (with **PREMIS**)
  - **Interoperabilnost** diseminacija & ponovna uporaba
- Geopodatki (**INSPIRE** Directive)
- **eHealth**

Vzorčna programska oprema

- **Relational Database** archiving Orodja za arhiviranje in ponovno uporabo **Relacijskih Baz** (**SIARD**)
- Orodja za pripravo arhivskih paketov
- Rešitve za **dolgoročne arhivske repozitorije**
- Online orodja za **validacijo paketov**

Podpora

- **Servisna podpora**
- Training in uporabniški priročniki
- **Center Znanja**
- E-ARK splošni model

Vključevanje & follow up

- Razširanje zavedanja
- **Skladnost s standardi**
- **Webinarji,** conference in delavnice

CEF eArchiving

Digital Europe eArchiving Common Services Platform

Building Block >>>

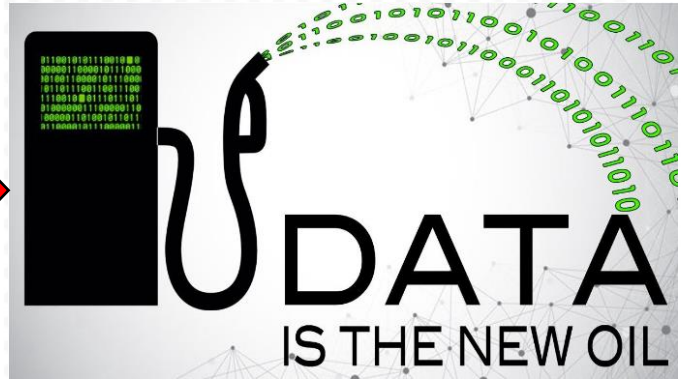
eArchiving podpira Digital Europe

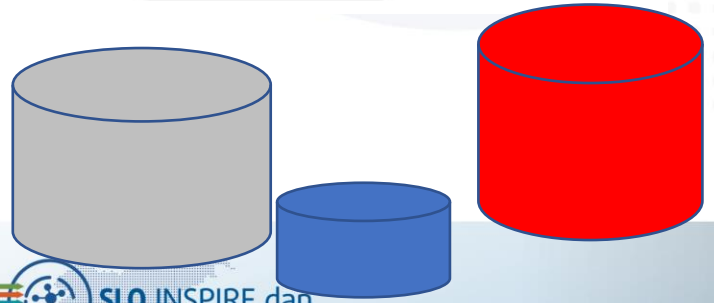
- supercomputing
- artificial intelligence
- cybersecurity
- advanced digital skills
- ensuring the wide use of digital technologies across the economy and society

Uporaba eArchiving je lahko prednost pri kandidaturi na projektih

Če so podatki nova nafta,
Kako zgleda podatkovna industrija?

RAFINIRANJE
&
TRANSPORT





eArchiving specifikacije za prostorske podatke in GIS sisteme

Specifikacija za pripravo podatkov pred pakiranjem

Smernice za pripravo podatkov

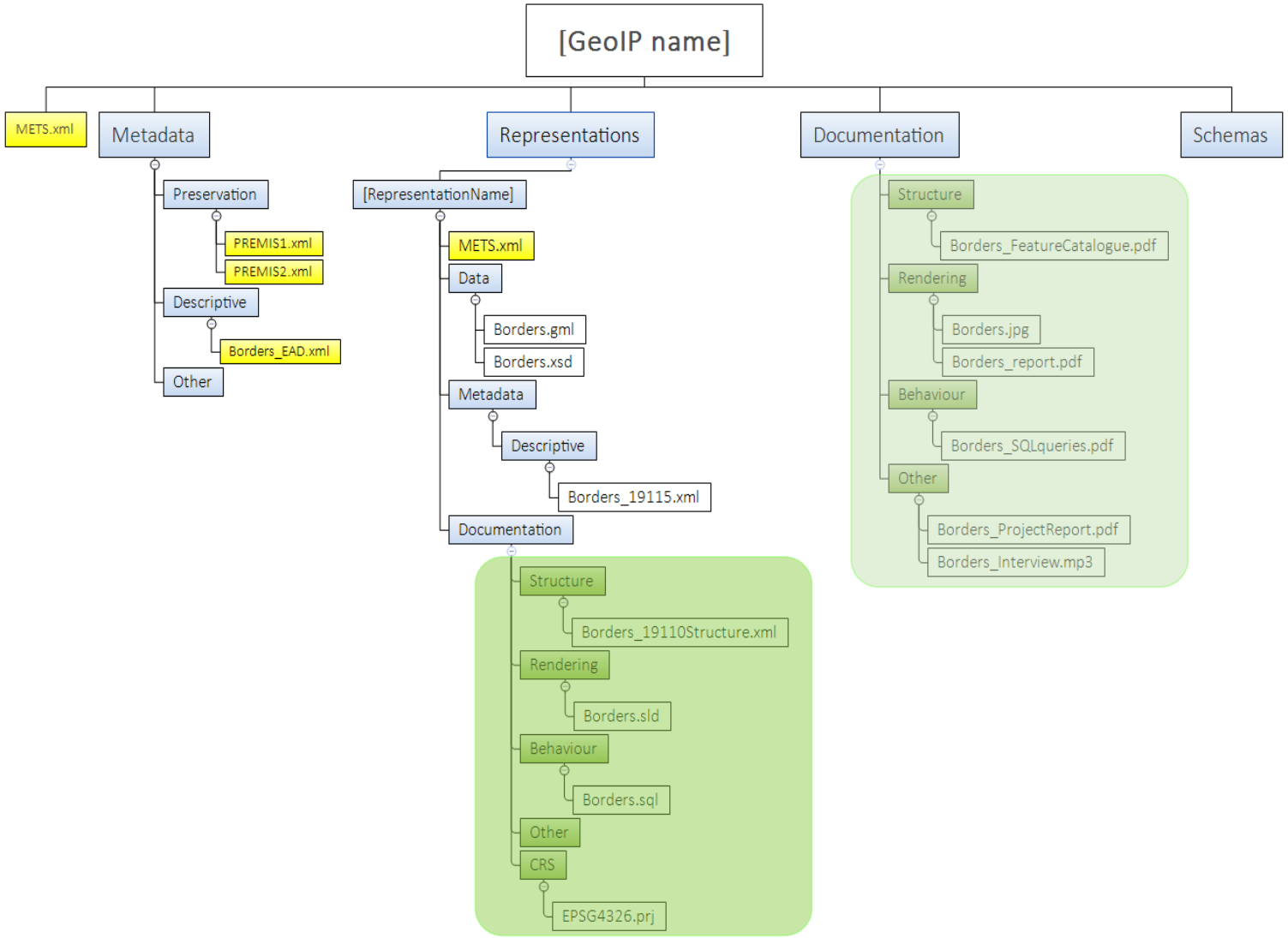
Smernice za pripravo GIS sistemov

2.1. Struktura paketa za dolgoročno hrambo

Struktura zagotavlja avtentičnost, preverljivost izvora in temelji na standardih

Podpora standardizirani strojno berljivi in opisni dokumentaciji

Struktura prilagodljiva vaši organizaciji podatkov



2.3. Zahteve za podatke

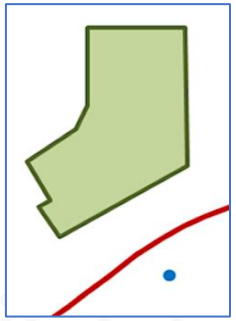
Splošne zahteve

Zahteve za Vektorske podatke

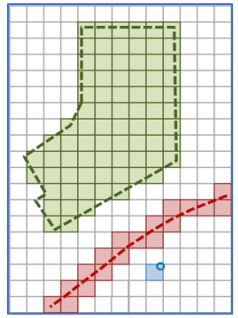
Zahteve za Rastrske podatke

Profili za fomate za dolgoročno hrambo.

- Profile GML 3.2.1.
- Profile TIFF baseline 6



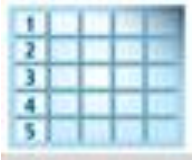
Vector



Raster

ID	Name, Location & Description	Card & Level
GEO_11	Minimum one file in a geospatial format If the value in mets/@csip: CONTENTINFORMATIONTYPE is "citsgeospatial_v3_0 ", then there **SHOULD** exist at least one file in a geospatial format in representations/[RepresentationName]/data	0..n SHOULD
GEO_12	Subfolders in data representations/[RepresentationName]/data If there are more geospatial records in a representation, each geospatial file **MAY** be placed or grouped in subfolders in representations/[RepresentationName]/data	0..n MAY
GEO_13	Long term preservation format representation The Information Package **SHOULD** contain at least one representation of geospatial record in a long-term preservation format, as defined by the Archive or in the Long-term Preservation Format Profile (See chapter 3.3.5.)	0..n SHOULD

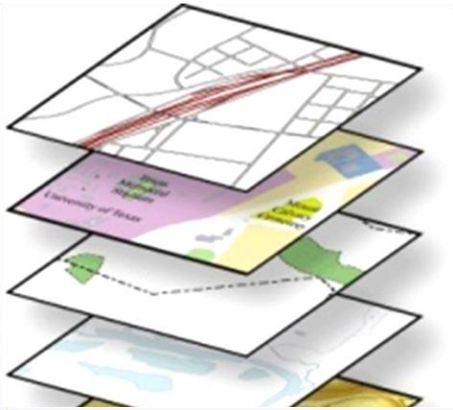
ID	Description of requirement	M/O
D_5.2-1	GML files larger than 1 GB **MUST** be subdivided into smaller GML files **Recommendation** *It is recommended that* GML files larger than 1 GB *are subdivided into smaller GML files because GML files larger than 1–2 GB are impossible to produce, test, correct or visualise in a GIS.*	M
D_5.2-2	Geometries and attributes from the same geospatial vector dataset **SHOULD** be kept together within the same GML file	O



2.4. Zahteve za Dokumentacijo

Kako trajnostno dokumentirati prostorske podatke in njihovo rabo:

- Struktura prostorskih zapisov
- Vizualizacija
- Uporaba
- Koordinatni sistemi
- Ostalo



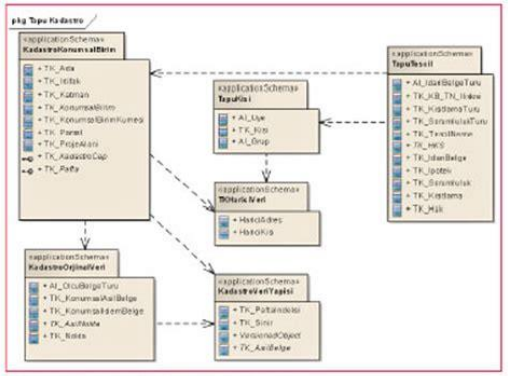
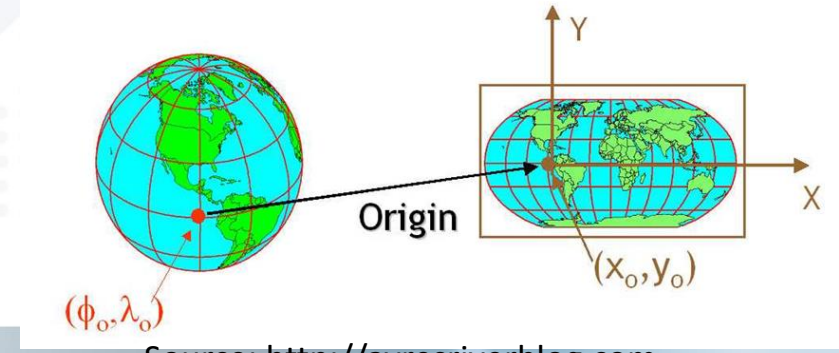


Figure 3: Data groups (packages) of the application schema

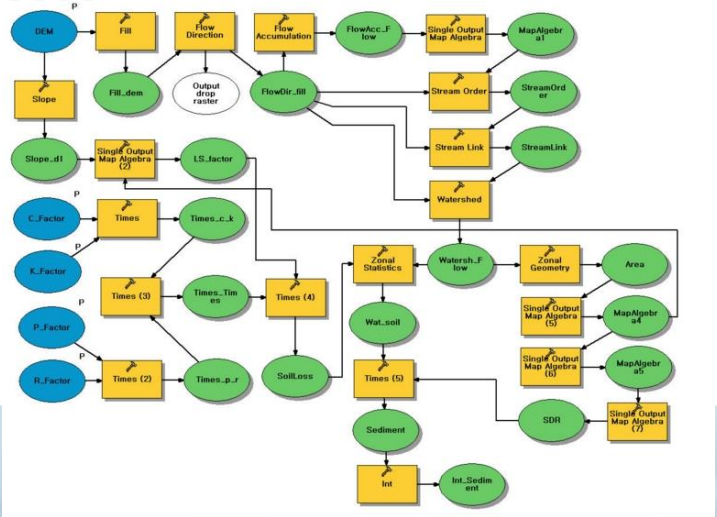
	Point	Line	Polygon	Associative	Ordered	Quantitative	Selective
Size	●	●	●		●	●	●
Value	●	●	●		●		●
Texture	●	●	●	●	●		○
Color	●	●	●	○			●
Orientation	●	●	●	●			○
Shape	●	●	●	●			

● Strong
○ Weak

Ali, Amr. (2017). Framework Development of Cybercartography for Mobile Environment. 6. 14-25. 10.5923/j.ajgis.20170601.02.



Source: http://ayresriverblog.com



2.5. Opisni metapodatki

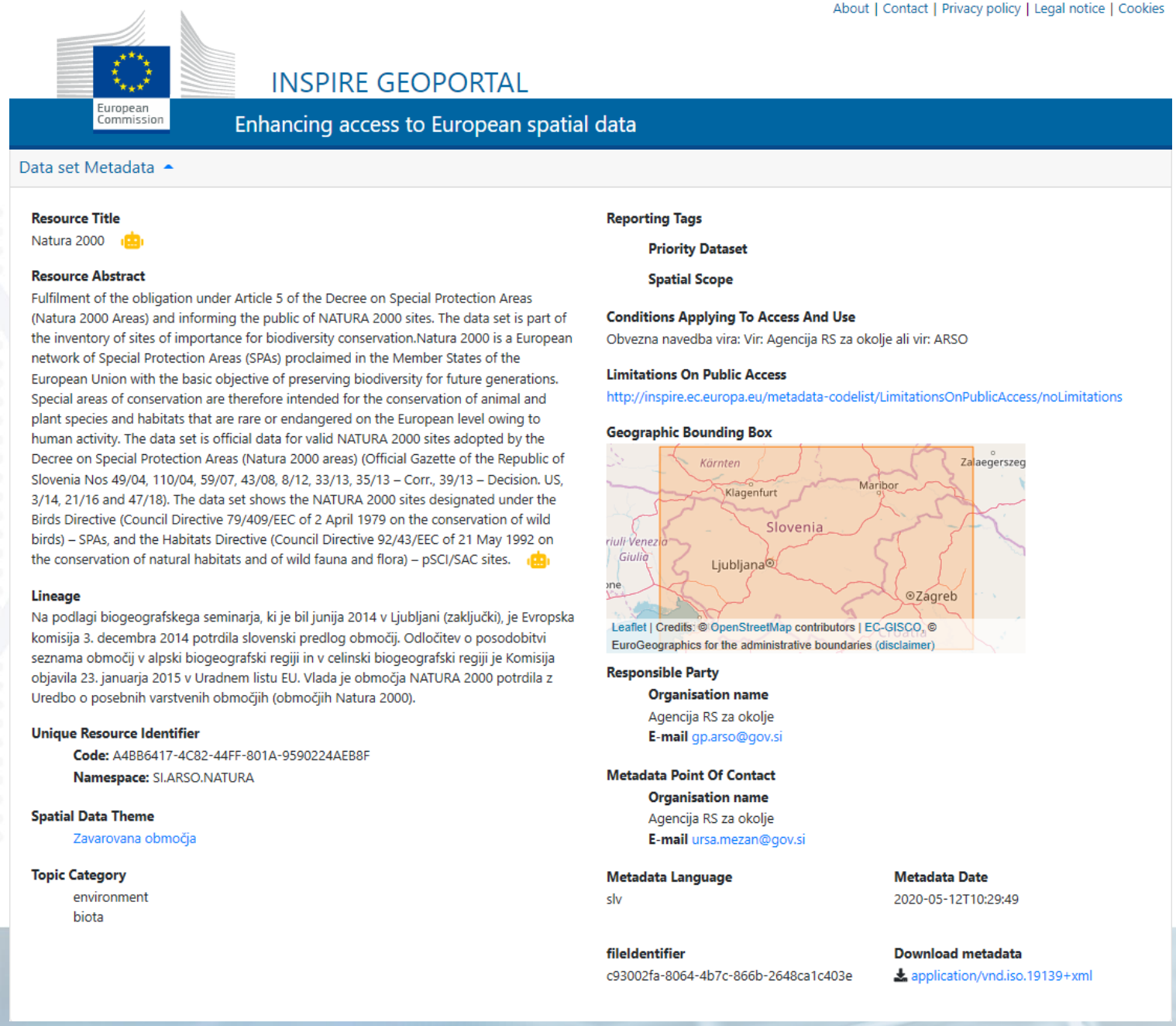
Prostorski metapodatki omogočajo najdljivost in uporabo podatkov

Seznam obveznih elementov

Podpora standardnim metapodatkom v strojno berljivi obliki

- ISO 19115-1
- ISO 19115-2
- ISO 19165-2
- INSPIRE

Podpora ostalim načinom opisa podatkov



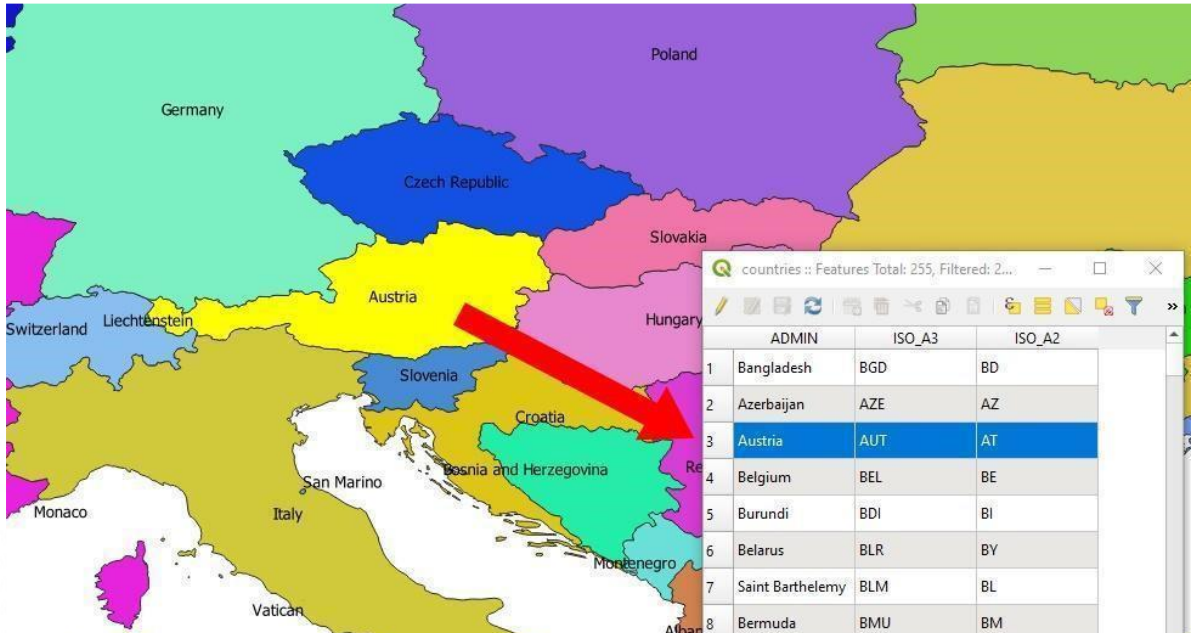
Smernice (Guidelines) za pripravo podatkov pred hrambo (CITS Geospatial)

Uvod v Prostorske podatke

Predstavitev koncepta “Significant Properties” za prostorske podatke

Razlaga vseh zahtev specifikacije

Primeri uporabe



GEO_14 Rationale

Requirement:

GEO_14	Original format representation	The Information Package **MAY** contain a separate representation of the same data, containing geospatial data in its original format	0..1 MAY

Description:
This requirement allows an additional representation in the IP with the geospatial data in the original format.

Example:
Figure 2 in chapter 3.1.2 shows an IP with two representations. One representation contains a Long-Term Preservation vector data format (`GML321`), and the other contains a representation of the original format in an ESRI shapefile format (`SHP`).

Rationale:
Original formats are often richer and easier to use than the preservation format and suitable for dissemination in the short term. However, it does not ensure the long-term preservation of the data. Geospatial data in original format can also be used for validation on submission mitigating loss of data and significant properties during migration to preservation format. The idea is that the users could use this representation until the original formats becomes obsolete.

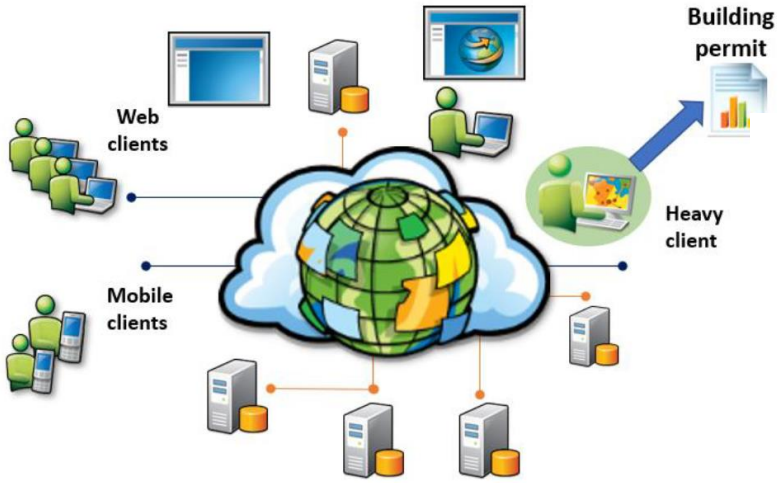
Smernice za uporabo CITS GIS

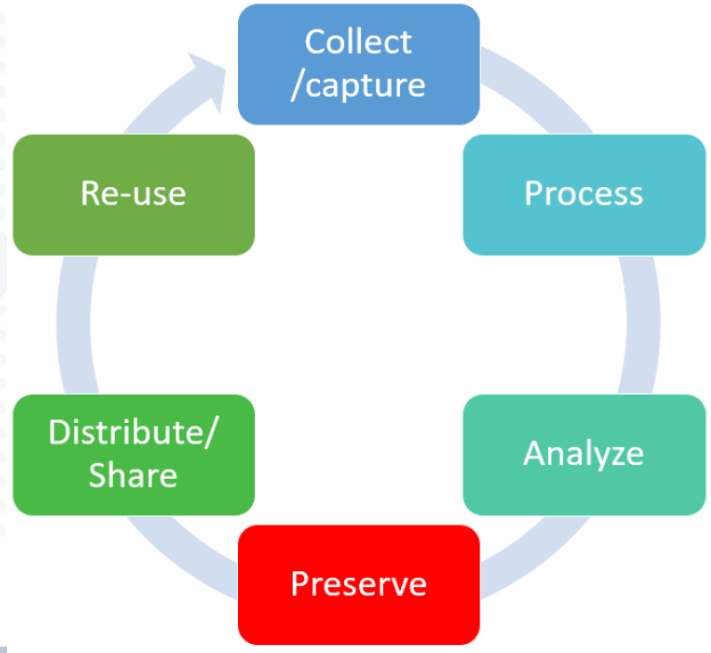
Strategije za trajnostni dostop do GIS Sistemov

Razlaga vseh zahtev specifikacije

S primeri, ki temeljijo na

OGC standardih





GEO_33 Rationale

Requirement:

GEO_33	Rendering configuration	A standardised machine-readable rendering configuration for one or more geospatial datasets **MAY** be provided in the Information Package	0..n MAY
GEO_33a Ref GEO_33	Placement of rendering configuration	If a standardised machine-readable rendering configuration for one or more geospatial datasets exists, it **SHOULD** be provided in representations/[RepresentationName]/documentation/rendering	0..n SHOULD

Description:
This requirement recommends that rendering configurations are documented in a standardised machine-readable format to support dissemination automatisation.

Example:
An example of Standardised machine-readable formats for the rendering of geospatial records are SLD[20] files. KML[21] files also have some of that capability:

SLD files example
SLD is an OGC[22] (Open Geospatial Consortium) standard for symbology and is the OGC Styled Layer Description XML format (SLD files). If the producer cannot provide the archive with SLD files, these can be recreated from the description provided in the `Documentation` in an open-source GIS application like QGIS[23]. Raster files can have a colour map associated with the pixel value. The SLD standard is used for rendering geodata in OGC web services and, therefore, could be used as an appropriate input for an easier DIP creation in the future. An example of an SLD file is shown in figure 13.

```
<StyledLayerDescriptor xmlns="http://www.opengis.net/sld"
       xmlns:ogc="http://www.opengis.net/ogc"
       xmlns:xlink="http://www.w3.org/1999/xlink"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       version="1.0.0"
       xsi:schemaLocation="http://www.opengis.net/sld StyledLayerDescriptor.xsd">
   <NamedLayer>
       <Name>Simple Point</Name>
       <UserStyle>
           <Title>SLD Cook Book: Simple Point</Title>
           <FeatureTypeStyle>
```

Kje organizacije uporabljajo eArchiving

- Trajnostni dostop do lastnih in izmenjanih podatkov
- Prilagajanje podatkovneg cikla po principu “Archiving by design” v sklopu Digitalne transformacije
- Organizacije, ki vodijo lastne arhive

Kako lahko sodelujemo

- Preiskusite naše smernice in specifikacije

  https://dilcis.eu/content-types/cs-geospatial-data

- Udeležite se naših delavnic

- Sodelovanje pri razvoju in nadgradnji specifikacij in orodij

3. Geospatial Preservaton Conference

- 8.- 9. Maj 2023
- Ljubljana

www.geopreservation.eu
www.dlmforum.eu

Hvala!

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