

6. INSPIRE ESPUS školenie „INSPIRE interoperabilita“

Proces harmonizácie

6. INSPIRE ESPUS školenie

"Harmonizáciou k INSPIRE
interoperabilite"



Online formát

Termín: 28.09.2022

Miesto: MS Teams



Operačný program
Efektívna
verejná správa



Európska únia
Európsky sociálny fond

Tento projekt je podporený z Európskeho sociálneho fondu





6. INSPIRE ESPUS školenie „Harmonizáciou k INSPIRE interoperabilite“ Proces harmonizácie

28.09.2022

Prehľad

Identifikácia údajov

- AsIs údaje
- ToBe INSPIRE údaje

Mapovanie

- Mapovacie tabuľky
- ETF nástroje
- Mapovanie v BD

Transformácia (ETF)

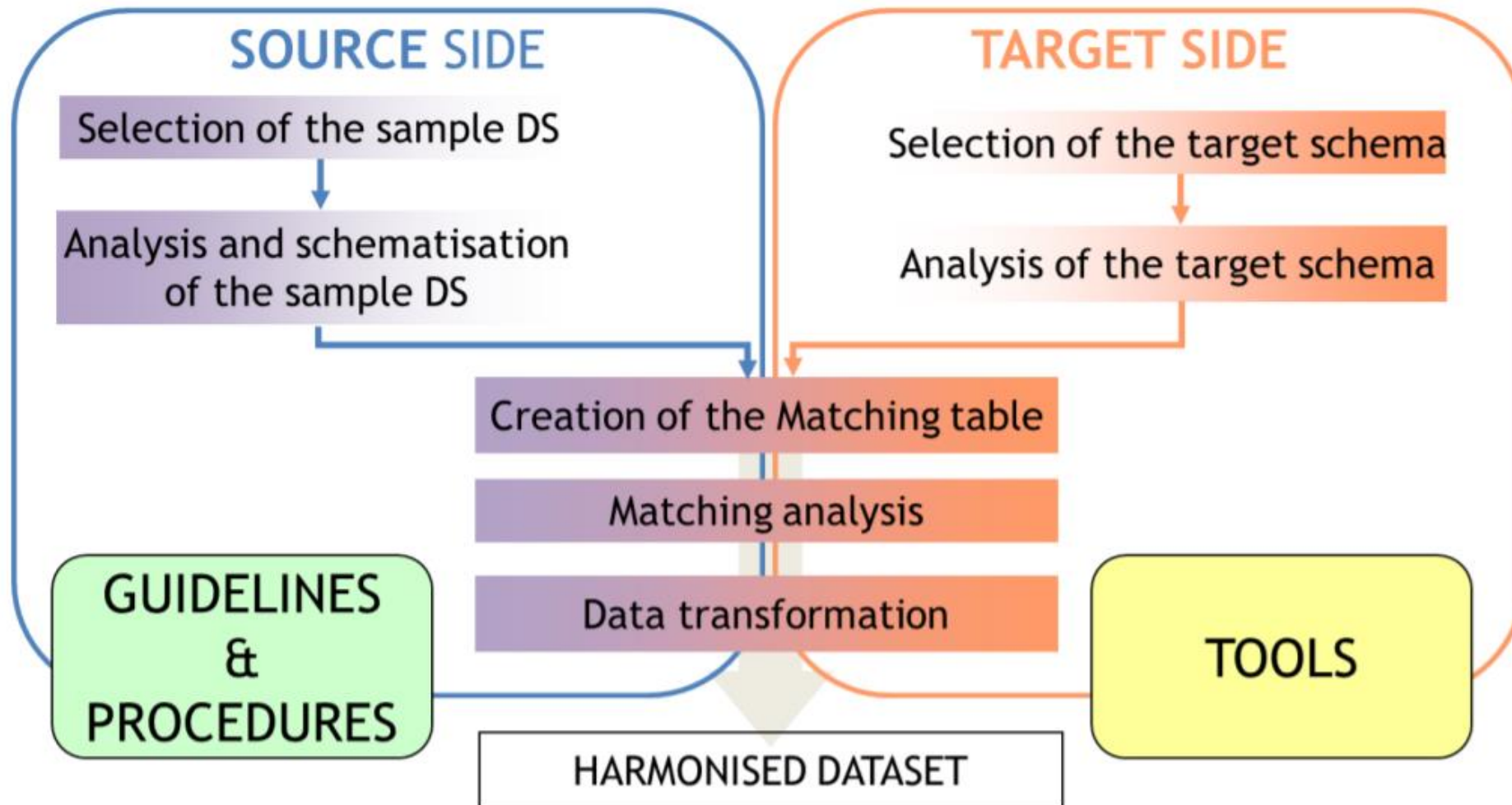
Validácia





Procesy a roly

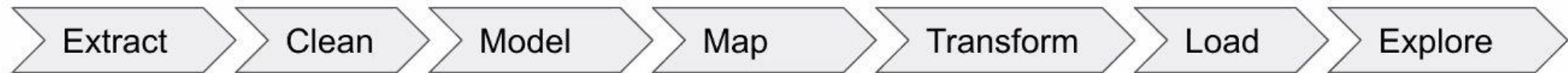
Procesy harmonizácie



Harmonizácia - roly

Extract, Transform, Load (ETL) and Explore

Process



Actor
Roles



IT Specialist



IT Specialist



Domain Specialist



IT Specialist



IT Specialist



IT Specialist



Domain Specialist



Domain Specialist



Conceptual Modeller



Conceptual Modeller



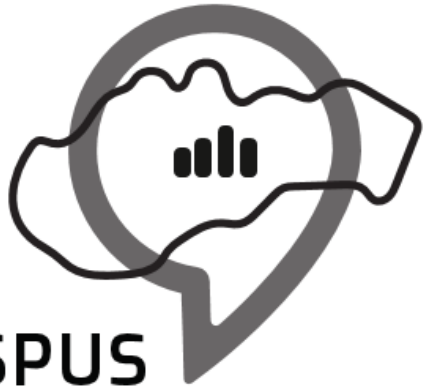
the Public

Tool



QGIS





ESPUS

Efektívna správa priestorových údajov a služieb

Identifikácia údajov

Identifikácia údajov - zdrojové údaje

- identifikácia zdrojového modelu (UML, doc, katalóg objektov, smernice, nariadenia atď.)
 - ak neexistuje popis - analýza samotných údajov a derivácia dátových typov, obmedzení, číselníkov atď.
- Verifikácia výmenných formátov, distribučných formátov
 - shape
 - cvs
 - gml
 - DB štruktúra



Data Mapping

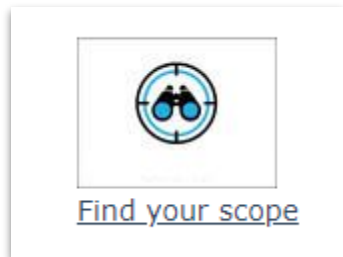
{REST:API}

Identifikácia údajov - cieľový model

The screenshot displays the INSPIRE Knowledge Base website. At the top left is the European Commission logo. The main header reads "INSPIRE KNOWLEDGE BASE" and "Infrastructure for spatial information in Europe". A search bar is located at the top right. Below the header is a navigation menu with options: Home, Learn, Implement, Participate, Use, and Toolkit. The "Toolkit" option is selected. On the left side, there is a "Quick search" sidebar with a list of categories: Data and Service Sharing, Data Specifications, Implement, INSPIRE, INSPIRE in your Country, Learn, Maintenance and Implementation, Metadata, MIG Work Programme, Monitoring and Reporting, Network Services, Participate, Spatial Data Services, and Use. The main content area is titled "INSPIRE tools" and features a "Category" dropdown menu set to "Data Specifications", with "Filter" and "Reset" buttons. Below this, there are seven tool cards arranged in a grid:

- Data Models**: Represented by an icon of a hierarchy of boxes.
- Find your scope**: Represented by an icon of a magnifying glass over a globe.
- INSPIRE Extensions**: Represented by an icon of a puzzle piece.
- INSPIRE registry**: Represented by an icon of a smartphone.
- INSPIRE Themes**: Represented by an icon of a grid with a gear.
- INSPIRE Validator**: Represented by an icon of a clipboard with a pencil.
- Read/Compare Technical Guidelines**: Represented by an icon of a magnifying glass over a document.
- XML Schemas**: Represented by an icon of a document with "XML" written on it.

Identifikácia údajov - cieľový model



European Commission
Interactive Data Specifications

European Commission > INSPIRE > INSPIRE Interactive Data Specifications > Find your scope

Home
Read/Compare Technical Guidelines
Find your scope
★ Favorites

FIND YOUR SCOPE

supports data providers with identification of the INSPIRE spatial data themes and spatial object types that are relevant to the dataset(s) they administer.

This application is foreseen to be useful especially in situations when datasets fall under two or more INSPIRE data themes / application schemas content. The application also serves as a catalogue of all objects defined by INSPIRE.

There are three possible ways for "finding your scope" or INSPIRE objects:

CATALOGUE OF INSPIRE OBJECTS

a catalogue of all spatial objects and their properties defined by INSPIRE in the alphabetic order. The user still can select one or more objects and continue with e.g. comparison with the data he/she administer.

INTERACTIVE WORKFLOW

a step-wise Interactive Workflow. The interactive workflow starts with an intuitive selection of INSPIRE data theme(s) that is followed by selection of relevant application schema(s), if relevant.

DIRECT SEARCH

a direct search in all categories of INSPIRE objects. The method allows you to search for an object(s) using a text string placed by a user. The search engine looks in the labels, definitions and descriptions of existing INSPIRE objects, application schemas and data themes.


Identifikácia údajov - cieľový model



[Read/Compare Technical Guidelines](#)

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English (en) ▼



INSPIRE


Interactive Data Specifications

European Commission > INSPIRE > INSPIRE Interactive Data Specifications > Read/Compare Related Themes > Theme Overview

Home
Read/Compare Technical Guidelines
Find your scope
★ Favorites

+

Addresses

Select Theme... ▼ 

Theme Overview		
Executive Summary	Label	Addresses
Detailed description	Annex	I
Data content and structure	Definition	Location of properties based on address identifiers usually by road name house number postal code
Data quality	Description	An address is an identification of the fixed location of a property The full address is a hierarchy consisting of components such as geographic names with an increasing level of detail e g town then street name then house number or name It may also include a post code or other postal descriptors The address may include a path of access but this depends on the function of the address
Metadata		
Delivery		Addresses serve several purposes these include the four uses described in the Dutch Address Registration catalogue
Data capture		i location e g for visits or the delivery of mail
Portrayal		ii identification e g in context of a building registration
Abstract Test Suite		iii jurisdiction e g authority responsible for the property identified by the address
Use cases		iv sorting and ordering VROM 2006 There may be other uses identified in the INSPIRE user requirements survey for example to aid emergency response

Identifikácia údajov - cieľový model



European Commission > INSPIRE > Implement > Data Specifications > Themes > Addresses

Home Learn Implement Participate Use Toolkit

Implement

- Guide for implementers
- Good Practice Library
- Data Specifications
- Monitoring & Reporting
- Metadata
- Network Services
- Data and Service Sharing
- Spatial Data Services
- INSPIRE Coordination Maintenance and Implementation Framework

Data Specifications








- Overview
- Technical Guidelines
- Legislation
- Roadmap
- Themes
- Data Models
- XML Schemas
- Library
- News
- Events
- Training
- MIG Work Programme
- Experts
- Tools
- INSPIRE Theme Icons[®]

Quick search

- Data and Service Sharing
- Data Specifications
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- Maintenance and Implementation
- Metadata
- MIG Work Programme
- Monitoring and Reporting
- Network Services
- Participate
- Spatial Data Services
- Use


Data Specifications > Themes > Addresses

Addresses - Annex 1

-  [INSPIRE Data Specification on Addresses – Technical Guidelines](#)
-  [Read/Compare Technical Guidelines](#)
-  [Theme description from Registry](#)
-  [\[Addresses\] Data on INSPIRE Geoportal](#)
-  [Find Your Scope](#)
-  [Experts](#)
-  [Data Models](#)

Addresses

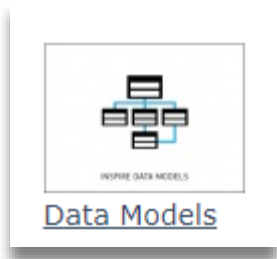
- > [UML Model](#)

 [Data Schema](#)

Addresses

- > [XSD Schema](#)
- > [Mapping Table](#)

Identifikácia údajov - cieľový model



European Commission

Infrastructure for spatial information in Europe


European Commission > INSPIRE > Toolkit > Data Models

Home Learn Implement Participate Use Toolkit

Data Models

INSPIRE data models

The [INSPIRE Implementing Rules on interoperability of spatial data sets and services](#) and the [data specification guidance documents](#) are based on the UML data models developed by the INSPIRE Thematic Working Groups. These data models are managed in a common UML repository, which also stores older revisions of the models.



This page makes different revisions of the INSPIRE UML models available in different formats and views (see below). Each of these revisions corresponds to a specific set of (draft or approved) Data Specification Technical Guidance (TG) documents and/or Implementing Rules.

Release	Corresponding TG and IRs	Status	Feature catalogue	HTML view	Mapping Tables	EA project / XMI	GML & code lists
2022.2	This version corresponds to the content of the Implementing Rules (EU) No 1089/2010, No 102/2011, No 1253/2013 and the latest publicly available version of the data specifications of Annex I, II+III.	APPROVED	FC	HTML	Mapping Tables	EA / XMI	Schema repository
	This distribution contains only those data models that are contained in the amendment to the Implementing Rules for Annex II+III themes, including the updates of the Annex I data themes.						
	This distribution combines the data models contained in the amendment to the Implementing Rules (see above) and the extended data models contained in the data specification Technical Guidelines (but not in the IRs). Please note that the extended data models not included in the IRs should be considered as draft and therefore be used with caution.	APPROVED (IR models) DRAFT (extended models)	FC	HTML	Mapping Tables	EA / XMI	Schema repository (IR models) Schema repository (extended models)


Identifikácia údajov - cieľový model



[INSPIRE registry](#)

[Viac informácií o |](#)
[Kontakt |](#)
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slovenčina (sk) ▾







INSPIRE

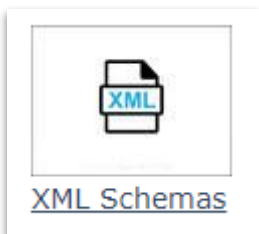
Systém registrov


Európska komisia > INSPIRE > INSPIRE systém registrov > INSPIRE glossary > Data harmonisation

📧 Help us improving the **Re3gistry software!** Please fill our quick survey at <http://europa.eu/!Bn84Ct> 📧

ID:	http://inspire.ec.europa.eu/glossary/DataHarmonisation		
This version:	http://inspire.ec.europa.eu/glossary/DataHarmonisation:2		
Latest version:	http://inspire.ec.europa.eu/glossary/DataHarmonisation		
Previous versions:	http://inspire.ec.europa.eu/glossary/DataHarmonisation:1		
Názov:			
[Not available in Slovak]			
Definícia:			
[Not available in Slovak]			
Popis:			
[Not available in Slovak]			
Status:			
Platný			
Ďalšie formáty:			
 XML Re3gistry	 XML ISO 19135	 RDF/XML	 Atom

Identifikácia údajov - cieľový model





INSPIRE KNOWLEDGE BASE

Infrastructure for spatial information in Europe

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English (en) ▼

European Commission > INSPIRE > Toolkit > XML Schemas

Home Learn ▼ Implement ▼ Participate ▼ Use ▼ Toolkit

Quick search


- 🔍 Data and Service Sharing
- 🔍 Data Specifications
- 🔍 Implement
- 🔍 INSPIRE
- 🔍 INSPIRE in your Country
- 🔍 Learn
- 🔍 Maintenance and Implementation
- 🔍 Metadata
- 🔍 MIG Work Programme
- 🔍 Monitoring and Reporting
- 🔍 Network Services
- 🔍 Participate
- 🔍 Spatial Data Services
- 🔍 Use

XML Schemas

INSPIRE xml schemas

The INSPIRE data specifications Technical Guidelines define GML application schemas (xml schemas) as the default encoding for all INSPIRE spatial data themes. The xml schemas are made available in the INSPIRE schema repository

- [endorsed schemas](#) for data models included in the Implementing Rules
- [draft schemas](#) for extended data models included in the Technical Guidelines



Schema versions

On 30 April 2015, the schemas for all INSPIRE themes were updated to make the schemas consistent with the changes introduced in the amendment of the Implementing Rules (Commission Regulation (EU) No 1253/2013) and the corresponding Data Specification Technical Guidelines.

The Data Specification Technical Guidelines will be updated to refer to the updated versions of the schemas in the encoding section in chapter 9.

How long will the different versions be maintained?

It was agreed in the MIG-T not to insist on backwards-compatibility for this update (see the MIG-T wiki for details on the [proposed approaches](#)) and that after April 2016, only the new versions of the schemas (i.e. v4.x for most schemas) will be maintained. This means that minor updates or bug fixes agreed by the MIG will only be made to the new schema versions.

How long can the old schemas still be used?

The MIG-T also discussed, for what period the usage of the old schemas is still acceptable.



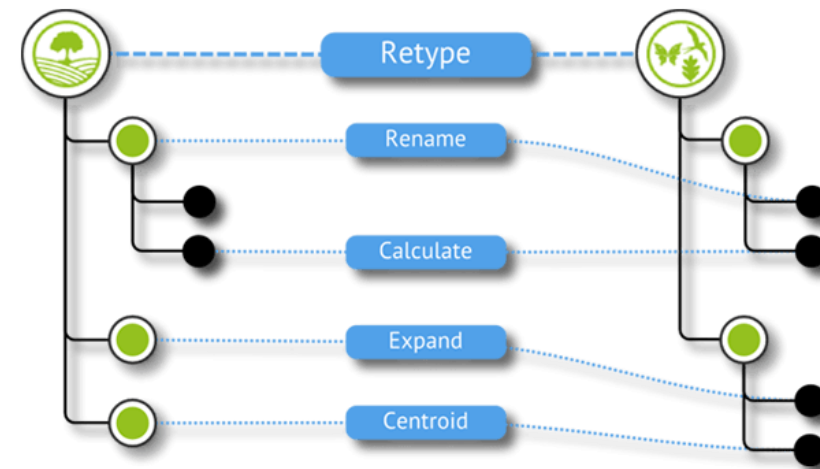
ESPUS

Efektívna správa priestorových údajov a služieb

Mapovanie

Mapovanie modelov

- individuálny prístup
- závislý na použitých transformačných (ETL) nástrojoch
- INSPIRE matching tables
- XML mapovanie
- na úrovni DB (Materializované pohľady)
- textový súbor
-



```

xmlns:tn="http://inspire.ec.europa.eu/schemas/tn/4.0"
xmlns:gtr="http://www.isotc211.org/2005/gtr"
xmlns:om="http://www.opengis.net/om/2.0"
xmlns:sam="http://www.opengis.net/sampling/2.0"
xmlns:gts="http://www.isotc211.org/2005/gts"
xmlns:ad="http://inspire.ec.europa.eu/schemas/ad/4.0"
xmlns:bu-base="http://inspire.ec.europa.eu/schemas/bu-base/4.0"
xmlns:cp="http://inspire.ec.europa.eu/schemas/cp/4.0"
xmlns:base2="http://inspire.ec.europa.eu/schemas/base2/2.0"
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0"
xmlns:sams="http://www.opengis.net/samplingSpatial/2.0"
xmlns:ge="http://inspire.ec.europa.eu/schemas/ge-core/4.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://inspire.ec.europa.eu/schemas/ge-core/4.0 http://inspire.ec.europa.eu/schemas/ge-core/4.0/GeologyCore.xsd gml:id="ID000">
  <gml:metaDataProperty xlink:type="simple" xlink:href="http://www.oxygenxml.com/" xlink:role="http://www.oxygenxml.com/" xlink:arcrole="http://www.oxygenxml.com/" xlink:title="Generic Metadata" gml:id="ID001">
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      </gml:GenericMetadata>
    </gml:metaDataProperty>
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    <gml:descriptionReference owns="false" xlink:type="simple" xlink:href="http://www.oxygenxml.com/" xlink:role="http://www.oxygenxml.com/" xlink:arcrole="http://www.oxygenxml.com/" xlink:title="Description Reference" gml:id="ID003">
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      <gml:name codeSpace="http://www.oxygenxml.com/">name0</gml:name>
      <gml:boundedBy nilReason="inapplicable">
        <gml:Null>inapplicable</gml:Null>
      </gml:boundedBy>
      <gml:priorityLocation priority="priority0" xlink:type="simple" xlink:href="http://www.oxygenxml.com/" xlink:role="http://www.oxygenxml.com/" xlink:arcrole="http://www.oxygenxml.com/" xlink:title="Priority Location" gml:id="ID004">
        <gml:LocationKeyWord codeSpace="http://www.oxygenxml.com/">LocationKeyWord0</gml:LocationKeyWord>
      </gml:priorityLocation>
      <ge:inspireId>
        <base:Identifier>
          <!-- Source attribute ID -->
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          <!-- Constant value -->
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          <base:versionId nilReason="inapplicable">versionId0</base:versionId>
        </base:Identifier>
      </ge:inspireId>
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          <gml:metaDataProperty xlink:type="simple" xlink:href="http://www.oxygenxml.com/" xlink:role="http://www.oxygenxml.com/" xlink:arcrole="http://www.oxygenxml.com/" xlink:title="Generic Metadata" gml:id="ID007">
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              <gml:name codeSpace="http://www.oxygenxml.com/">name1</gml:name>
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          </gml:description>
        </gml:Curve>
      </ge:downholeGeometry>
    </gml:metaDataProperty>
  </gml:metaDataProperty>

```



ESPUS

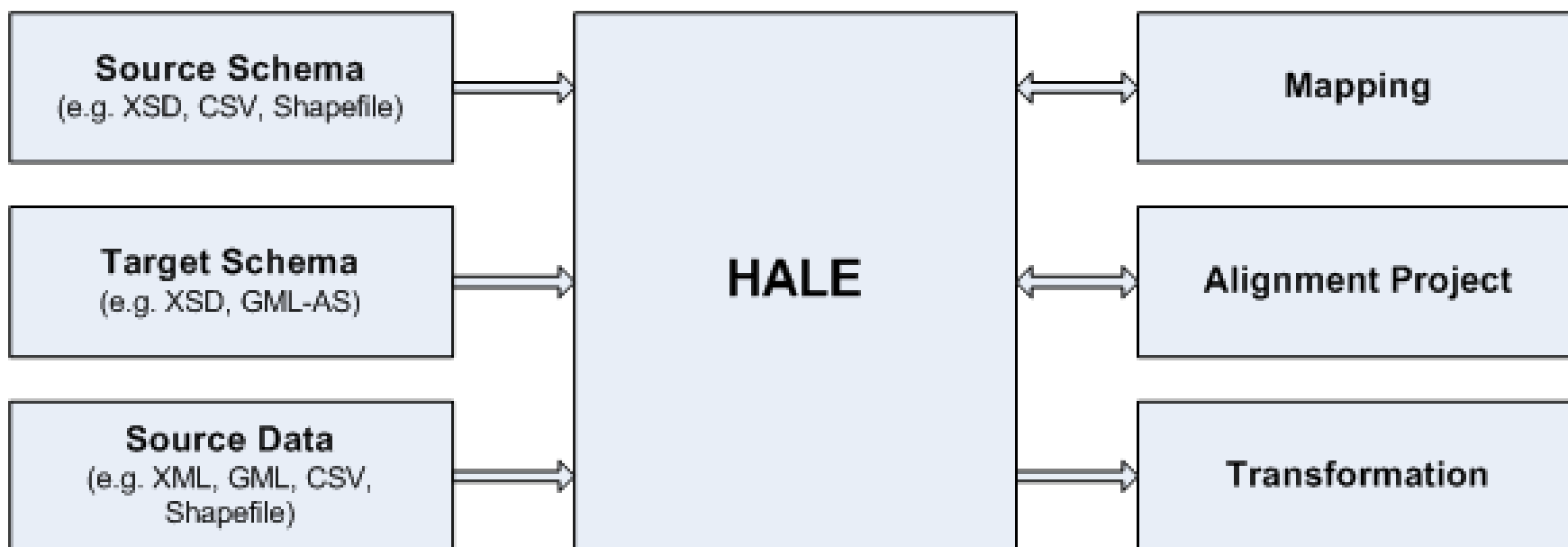
Efektívna správa priestorových údajov a služieb

Transformácia

Proces harmonizácie

Transformácia

- ETL nástroje (HaleStudio, FME, Talend, atď.)
- XSLT transformácie
- Geoserver





ESPUS

Efektívna správa priestorových údajov a služieb

Validácia

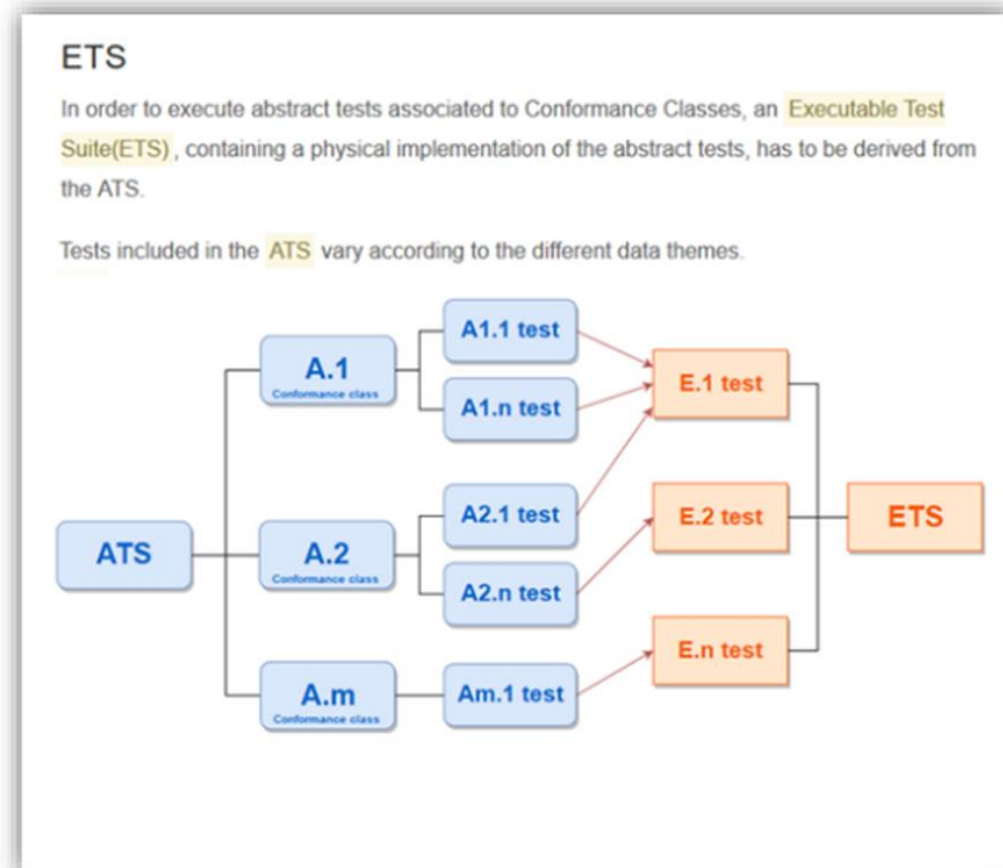
Validácia - Abstract test suite (ATS)

- súčasť príloh technických návodov
- množina abstraktných testovacích scenárov za účelom zabezpečenia interoperability
- spoločné sady testov

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Validácia - Executable test suites (ETS)

- technická implementácia ATS



Configure your test

Select the INSPIRE resource you would like to test

- Metadata
- View Service
- Download Service
- Discovery Service
- Data set

Select the data theme(s) relevant to the data set

- You can select more than one theme at a time.
- If no theme is selected, the data set will be only tested against the Conformance Classes for general requirements.

Annex I	Annex II	Annex III
Addresses (AD)	-	-

Advanced options ^

Select the conformance classes to be assessed for ANNEX I - Addresses (AD)

- Conformance Class 'INSPIRE GML encoding' ([source](#))
- Conformance Class 'INSPIRE GML application schemas' ([source](#))
- Conformance Class 'GML application schema, Addresses' ([source](#))
- Conformance Class 'Application schema, Addresses Simple' ([source](#))
- Conformance Class 'Data consistency' ([source](#))
- Conformance Class 'Data consistency, Addresses' ([source](#))
- Conformance Class 'Information accessibility' ([source](#))
- Conformance Class 'Information accessibility, Addresses' ([source](#))
- Conformance Class 'Reference systems' ([source](#))
- Conformance Class 'Reference systems, Addresses' ([source](#))

Validácia - Report

European Commission > INSPIRE > Validator > Test reports

INSPIRE Validator - Test reports

Home Test selection Test reports Get support ▾ More on the INSPIRE Reference Validator ▾

Test run on 17:49 - 26.09.2022 with test suite Annex I - Hydrography (HY) - IOS 852

Status Passed, manual checks required
 Started 26/09/2022 15:49:45 GMT
 Duration 14 s

	Total	Count	Skipped	Failed	Warnings	Manual
Test suites	10	0	0	0	0	4
Test cases	25	0	0	0	0	9
Assertions	71	0	0	0	0	16

Show Level of detail

All Only failed Only manual All details Less information Simplified

- + Conformance class: INSPIRE GML encoding 1
- + Conformance class: Reference systems, General requirements 2
- + Conformance class: Reference systems, Hydrography 1
- + Conformance class: Information accessibility, General requirements 1
- + Conformance class: Information accessibility, Hydrography 2
- + Conformance class: Data consistency, General requirements 2
- + Conformance class: Data consistency, Hydrography 3
- + Conformance class: INSPIRE GML application schemas, General requirements 6
- + Conformance class: GML application schemas, Hydrography 2
- + Conformance class: Application schema, Hydrography - Network 5



ESPUS

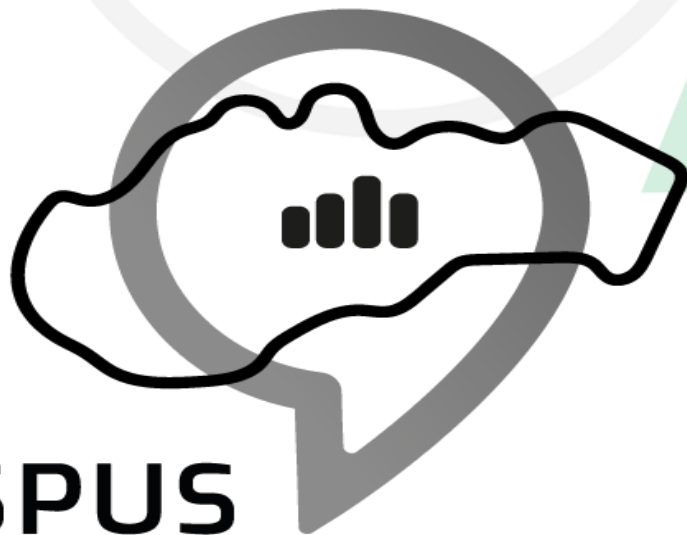
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Ďakujem za pozornosť!

Radoslav Chudý

rado.chudy@gmail.com

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<https://inspire.gov.sk/projekty/espus>