

Discoverability and its Vision at BEV

Experiences from the Federal Office of Metrology and Surveying in Austria

Markus Jobst

Agenda

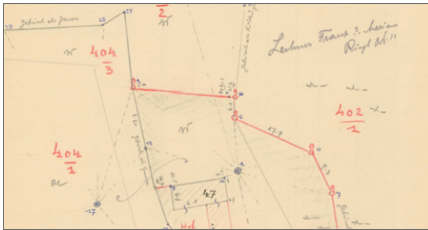
- Governmental Products
- Accessibility
- Discovery
- Conclusion

Governmental Products

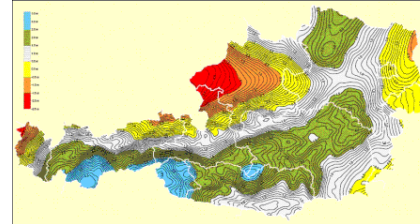
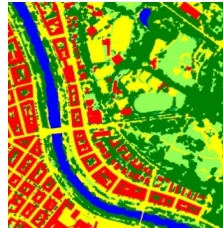
- Stability/Reliability
- FAIR
(Findable,
Accessible,
Interoperable,
Reusable)
- Diversity



Governmental Products / Variety

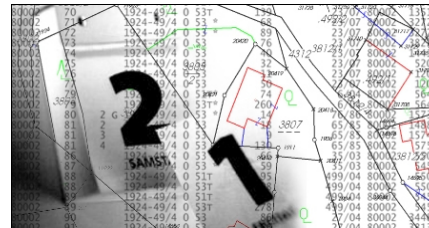


Archival
and
Digitized
Content



Positioning

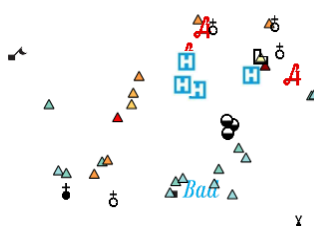
e.g.
RINEX 1s



Varieties
of
Raster
Data

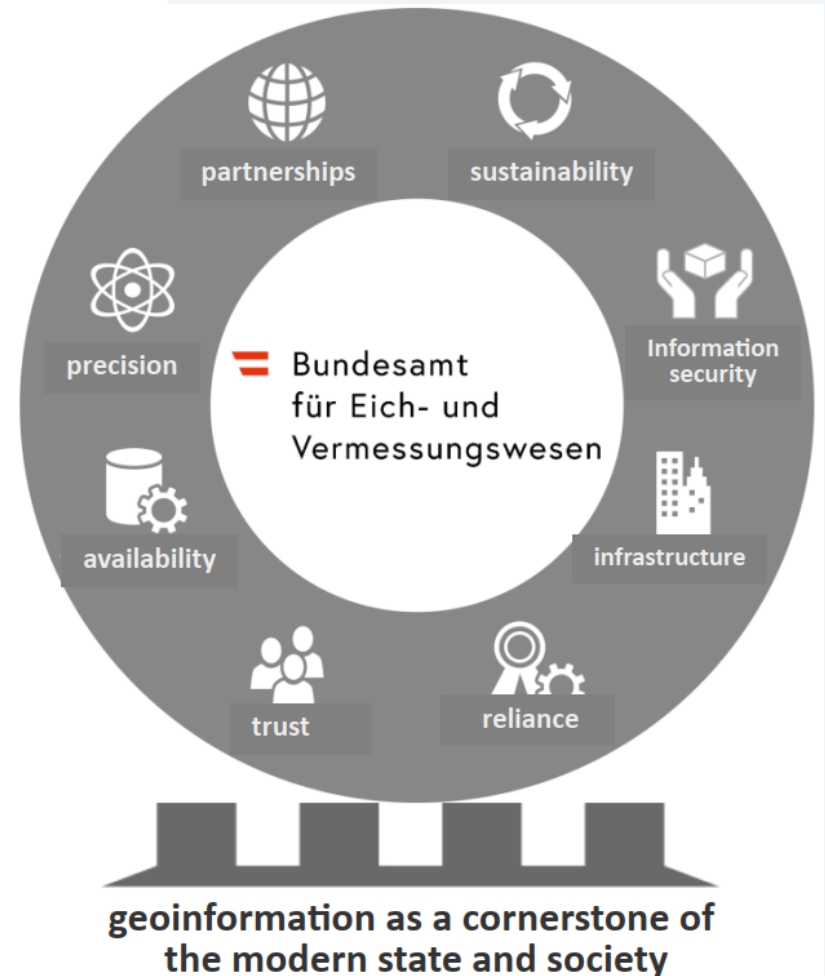


Varieties
of
Vector
Data



Governmental Products / Trust

- Expand collections of data sources and microservices with a network for the secure and self-determined exchange of continuously maintained information
- between known or unknown partners
- with an agreed level of trust between the parties involved
- to bridge a variety of use cases and thematic domains.
- Clear data sovereignty (sovereignty)
- (Core) competencies
- Responsibilities/Maintenance



Accessibility

Strategy and principles for data dissemination

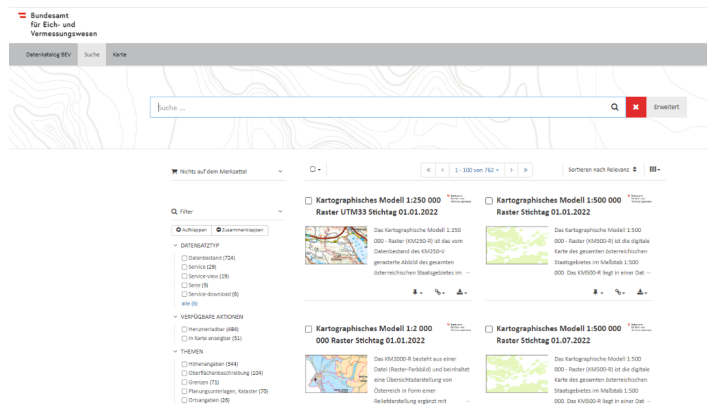
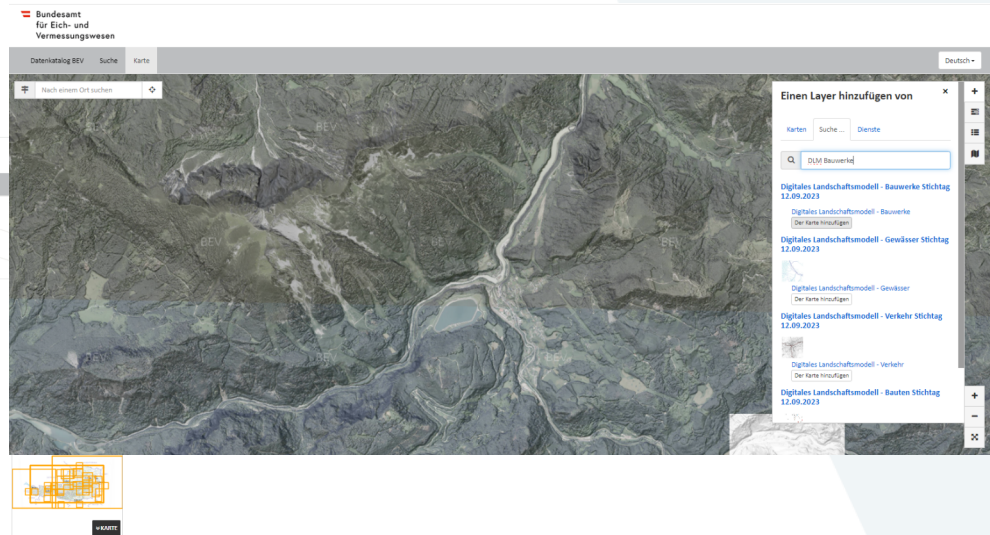
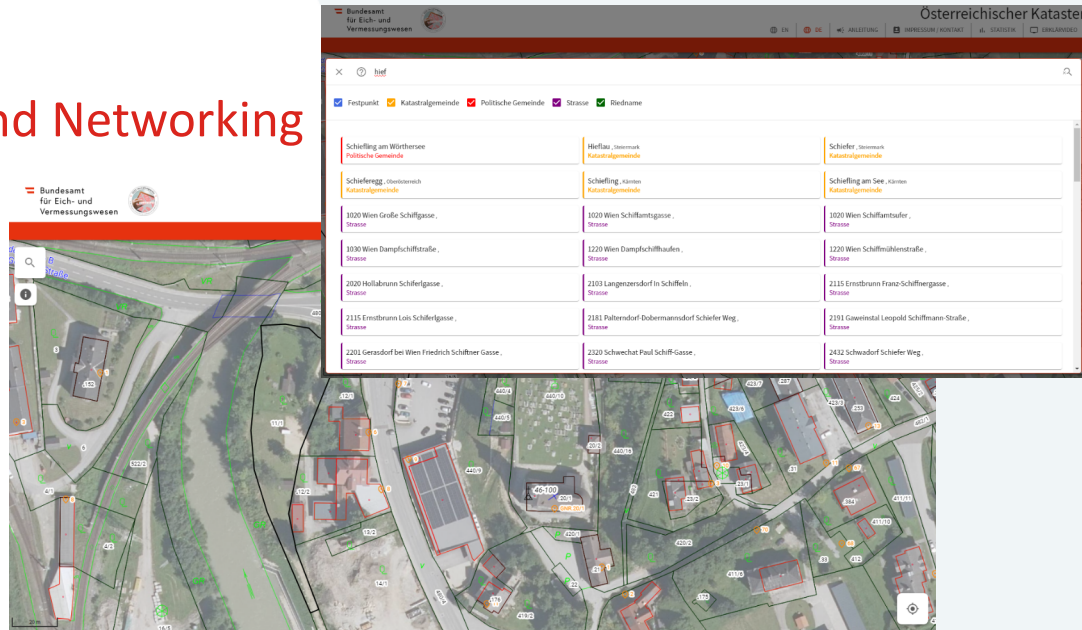
- Date should be consistent but as **up-do-date** as possible (optimizing internal supply chains)
- Mass data covering the whole nation for administrative purpose are available but **referenced to a due date**
- All data are **in principal free of charge** and licensed CC-BY-4.0!
There are some exceptions due to General Data Protection regulation
- All **standardized IT-services** for viewing and dissemination are free of charge
- All real-time, high-value IT services **with complex queries and filter options or direct integration into customer applications** are subject to a fee.
The price is based on the marginal cost principle.



Accessibility

Geoportal, Information-Portals and Networking

- Principles of SOA
- Expert- versus general users
- Interfaces and formats



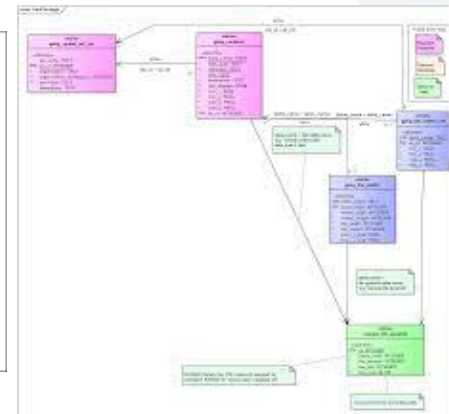
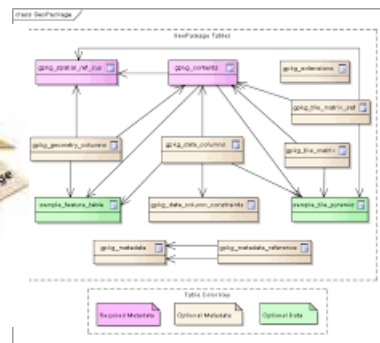
Accessibility

Geospatial data and formats for the crowd

- Geospatial file formats
- Standardized Interfaces

```

WKT, F_NAME, NAME, VARIANTNAME, HOEHE_BODEN, ERFASS_ART, ERFASS_ART_HOEHE_BODEN, ERSTELL_DAT, BEARB_DAT, OBJECTID, GLOBALID
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```



Discovery

Low level access to authentic and government information

e.g.



Searching for

- APOS Postprocessing or RINEX
(postprocessing data 1s or 30s as STAC catalogue)
- Flüsse Stichtag

Discovery Mechanisms

Landing page and its reference

- Plain HTML
- Sufficient meta and link information
- Well formed content (e.g. title and description)

Datenkatalog BEV

Digitales Landschaftsmodell - Gewässer Stichtag 08.04.2022

Der Objektbereich DLM - Gewässer umfasst in Form von hochgenauer Vektorgrafik mit Attributen als Basis für Geographische Informationssysteme flächendeckend für Österreich die Elemente:

- alle fließenden Gewässer (Flüsse und Bäche)
- Bauwerke für die Wasserversorgung (Wasserleitungen, Druckrohrleitungen)
- punkt- und linienförmige Bauwerke (Quellen, Wasserfälle, Bootsstege, usw.)

Stichtag = Erstellungsdatum:
Die Daten sind zu diesem Tag der aktuellste Datenbestand des BEV.
Dies ist nicht ident mit dem Aufnahme- bzw. Vermessungsdatum.

Datumsangaben (Erstellung)	2022-04-08
Datumsangaben (Publikation)	2022-05-16
Code	https://doi.org/10.48677/ba4534b1-22c5-443d-a000-10af2a898d77

Ansprechpartner

✉ Bundesamt für Eich- und Vermessungswesen - Abteilung Landschaftsinformation

Keywords

- AT.BEV
- Digitales Landschaftsmodell

GEMET - INSPIRE themes, version 1.0

- Gewässernetz

GEMET - INSPIRE Spatial Data Themes

- Gewässernetz

Umweltthesaurus UMTHEs

- Landschaftsmodell
- Gewässer

Räumlicher Anwendungsbereich

- National

Zugriffseinschränkungen

Benutzerdefinierte Einschränkungen

Andere Einschränkungen

Der öffentliche Zugang zu diesem Produkt unterliegt keinen Einschränkungen.

Nutzungseinschränkungen

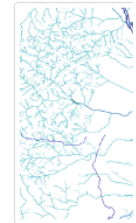
Benutzerdefinierte Einschränkungen

```

<html ng-app="gn_search_minimal" lang="" id="ng-app">
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<title>Digitales Landschaftsmodell - Gewässer Stichtag 08.04.2022/</title>
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<meta name="viewport" content="initial-scale=1.0" />
<meta name="apple-mobile-web-app-capable" content="yes" />
<meta name="description" content="Der Objektbereich DLM - Gewässer umf">
<meta name="keywords" content="" />
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<meta property="og:description" content="Der Objektbereich DLM - Gewäss">
<meta property="og:site_name" content="Datenkatalog BEV" />
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<meta name="twitter:site" content="Datenkatalog BEV" />
<link rel="canonical" href="https://data.bev.gv.at/geonetwork/srv/api">
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<link href="https://data.bev.gv.at/geonetwork/srv/eng/portal_opensearch">
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<link href="https://data.bev.gv.at/geonetwork/srv/ger/../../static/gn">
</head>
<body class="gn-nojs">
<div class="gn-full">
<div class="navbar navbar-default gn-top-bar" role="navigation">
<div class="container">
<div class="navbar-header">
<button type="button" class="navbar-toggle collapsed" data-tog">
<span class="sr-only" />
<span class="icon-bar" />
<span class="icon-bar" />
<span class="icon-bar" />
</button>
</div>
<div id="navbar" class="navbar-collapse collapse">
<ul class="nav navbar-nav" id="topbar-left">
<li>
<a href="../../srv/ger/catalog_search#/home">Datenkatalog
</li>
<li>
<a title="Suchen" href="../../srv/ger/catalog_search#/search">
<i class="fa fa-fw fa-search hidden-sm"> </i>
<span>Suchen</span>
</a>
</li>
<li>
<div id="map-menu" class="hidden-nojs">
<a title="Karte" href="../../srv/ger/catalog_search#/map">
<i class="fa fa-fw fa-globe hidden-sm"> </i>
<span>Karte</span>
</a>
</li>
</ul>
</div>
</div>
</div>
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<article id="ba4534b1-22c5-443d-a000-10af2a898d77" class="gn-md">
<div class="row">
<div class="col-md-8">
<header>
<h1>
<i class="fa fa-icnn-dataset">

```

Overviews



DLM Gewässer

Räumliche Ausde



Keywords

GEMET - INSPIRE th
Gewässernetz

Provided by

Bundesan
für Eich-
Vermessu

Share on social si



Not available

Discovery Mechanisms


DOI: extending our distribution and persistence (SEO)

Landesamt für Eich- und Vermessungswesen
Datenkatalog BEV

Digitales Landschaftsmodell - Bauten

Der Objektbereich Bauten umfasst in Form von hochgenauer Vektorgrafik mit Attributen als Basis für Geographische Informationssysteme flächendeckend für Österreich die Elemente:

- (a) Objekte (koordinative Bezugspunkte - POI) aus den Bereichen Kommunale Einrichtungen, Betriebseinrichtungen, Kultur, Freizeit und Sport, Schutzeinrichtungen
- (b) Sonstige linienhafte Objekte (z.B. Bob-, Rodelbahn)
- (c) Anlagen und Bauwerke für Versorgung (Stromleitungen und Strommasten)

Date (Revision)	2021-10-15T00:00:00
Date (Publication)	2022-01-01T00:00:00
Identifizier	https://doi.org/10.48677/cf69f625-cd76-40e0-9e75-3ce05c90f193
Resource provider	 Bundesamt für Eich- und Vermessungswesen - Abteilung Landschaftsinformation
GEMET - INSPIRE themes, version 1.0	• Gebäude
Spatial scope	• National
Use limitation	Für dieses Produkt gilt die Standardlizenz Creative Commons CC-BY-4.0
Use limitation	https://creativecommons.org/licenses/by/4.0/
Use limitation	http://inspire.ec.europa.eu/metadata-codelist/LimitationsOnPublicAccess/noLimitations
Access constraints	Other restrictions
Other constraints	Für dieses Produkt gilt die Standardlizenz Creative Commons CC-BY-4.0
Other constraints	https://creativecommons.org/licenses/by/4.0/
Other constraints	http://inspire.ec.europa.eu/metadata-codelist/ConditionsApplyingToAccessAndUse/noConditions

Overviews

Spatial extent



Keywords


GEMET - INSPIRE themes, version 1.0

Gebäude

Spatial scope


National

Provided by

 Bundesamt für Eich- und Vermessungswesen

Share on social sites



 Access to the portal

Read here the full details and access to the data.

Associated resources

Not available



Discovery Mechanisms

DOI: extending our distribution and persistence

DataCite Fabrica

About Support PTNC.BEV4DATA ▾

Bundesamt für Eich- und Vermessungswesen

Info Settings Prefixes **DOIs**

- Create (Form)
- Create (File Upload)

State

- Findable 149
- Registered 1

Resource Type

- Dataset 150

Year created

- 2022 6
- 2021 144

Prefix

- 10.48677 150

Schema Version

Type to search...

Reset All

150 DOIs

Digitales Landschaftsmodell - Verkehr Dataset

Abteilung Landschaftsinformation,

Dataset Dataset published 2022 via Bundesamt für Eich- und Vermessungswesen

Der Objektbereich Verkehr umfasst in Form von hochgenauer Vektorgrafik mit Attributen als Ba

Informationssysteme flächendeckend für Österreich folgende Elemente: (a) alle Straßen (b) alle

Darüber hinaus sind auch die koordinativen Bezugspunkte mit Attributen von Verkehrsobjekten e

österreichweite, hochgenaue Verortung von POI (points of interest) aus den Bereichen Bahnen, Flug

und Bauwerke für Verkehr, Transport sowie Kommunikation und Versorgung.

Created January 17, 2022, 14:06:14 UTC. [Findable](#)



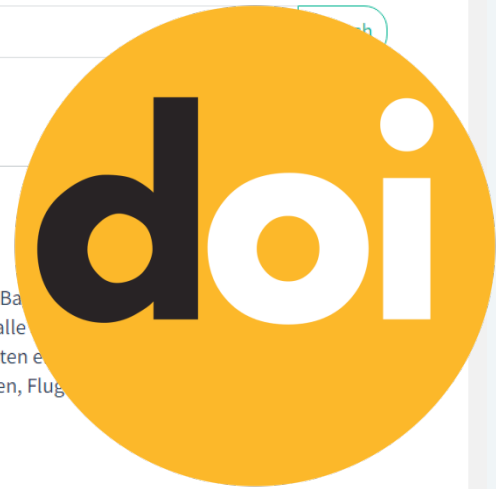
<https://doi.org/10.48677/8c633895-34dc-4981-adde-0a0ea3476349>

Digitales Landschaftsmodell - Geographische Namen Dataset

Abteilung Landschaftsinformation,

Dataset Dataset published 2022 via Bundesamt für Eich- und Vermessungswesen

Der Objektbereich Namen umfasst die koordinativen Bezugspunkte mit Attributen von derzeit mehr als 220 000 Namen von



FEEDBACK

Discovery Mechanisms

DOI: extending our distribution and persistence

DataCite Fabrica

Bundesamt für Eich- und Vermessungswesen / DOIs

10.48677/6854e2a0-166e-4679-9426-98c9d7a0a41d

Update DOI (Form)

Update DOI (File Upload)

Findable

Metadata Export

DataCite XML

DataCite JSON

Schema.org JSON-LD

BibTeX

DOI created

December 17, 2021, 14:34:16 UTC

DOI registered

December 17, 2021, 14:34:18 UTC

DOI last updated

December 17, 2021, 14:34:18 UTC

Schema

DataCite Metadata Schema 4

URL

<https://data.bev.gv.at/geonetwork/srv/metadata/6854e2a0-166e-4679-9426-98c9d7a0a41d>

Metadata

Verwaltungsgrenzen (VGD) - Stichtag 01.10.2021 BEV Dataset

Vermessungsämter,

Dataset Dataset published 2021 via Bundesamt für Eich- und Vermessungswesen

Die Verwaltungsgrenzen Stichtag BEV beinhalten die Grenzen der Verwaltungseinheiten Österreichs im Schnitt

Die Daten sind für folgende Grenzen vorhanden: 1) Katastralgemeindengrenze 2) Gemeindegrenze 3) Bezirksgr

Gerichtsbezirksgrenze 5) Vermessungssprengelgrenze 6) Finanzamtsbereichsgrenze 7) Bundesländergrenze 8



<https://doi.org/10.48677/6854e2a0-166e-4679-9426-98c9d7a0a41d>

Citation

Vermessungsämter. (2021). *Verwaltungsgrenzen (VGD) - Stichtag 01.10.2021 BEV* [Data set]. Bundesamt für Eich- und

Vermessungswesen. <https://doi.org/10.48677/6854E2A0-166E-4679-9426-98C9D7A0A41D>

About Support PTNC.BEV4DATA -

Summary



About DataCite

What we do

Members

Services

Assign DOIs

Event data

Resources

Metadata schema

Fee Model

Contact us

Imprint

Feedback

<https://doi.datacite.org/dois/10.48677%2Fd54d7c29-4afe-44f7-9e6c-c036323b2dc8>

FEEDBACK

Discovery Requirements Pragmatic Observations

- Controlled,
- stable and
- sustainable vocabularies

It is THE reference
for your resources
(and features)!

The screenshot shows the Schema.org website. At the top, there is a navigation bar with 'Schema.org', 'Docs', 'Schemas', 'Validate', and 'About'. Below this, the 'hasMap' property is defined as a Schema.org Property. It is described as 'A URL to a map of the place.' and lists 'Map' and 'URL' as expected values. It is also noted that it is used on 'Place' types. A 'Supersedes' box lists 'maps' and 'map'. An 'Examples' section shows a code snippet for 'Example 1' using microdata to link to a map of ACME Hotel Innsbruck. Below the Schema.org screenshot, there is a section for 'Vocabs' with a description of their importance in scholarly work. At the bottom, a list of 'Skosmos Vocabulary Categories' is shown, including General Concepts, Meta-Thesaurus, Backbone Thesaurus, Humanities, Art History, Cultural History, and Archaeology, each with a list of associated vocabularies.

Getting started: <https://schema.org/docs/gs.html>

<https://vocabs.acdh.oeaw.ac.at/en/>

Discovery Requirements

Pragmatic Observations

- Topographic thessaurii
- Topographic ontological foundations
- Network of stable and reliable thessaurii

European Commission

English

Europäische Kommission > INSPIRE > INSPIRE registry > INSPIRE code list register

INSPIRE registry

INSPIRE code list register

URI: <http://inspire.ec.europa.eu/codelist>

Label: **INSPIRE code list register**

Content summary: The INSPIRE code list register contains the code lists and their values, as defined by rules on interoperability of spatial data sets and services (Commission Regulation does not yet include references to external code lists and the additional code lists the Data Specification Technical Guidelines).

Register Manager: European Commission, Joint Research Centre

Register Owner: European Union

Control Body: Control body for the central INSPIRE registers and INSPIRE register federation

Submitting Organization: Nominated submitting organisations for the central INSPIRE registers and INSPIRE

Contact Point: JRC INSPIRE Registry Team

License: Europa Legal Notice

Insert date: 2013-03-26 11:22 AM CET

Available formats: XML Registry XML ISO 19135 RDF/XML JSON CSV ATOM

Available items

Show entries Showing 1 to 10 of 313 entries Filter:

Label	Parent	Application Schema	Theme
Access Restriction		Common Transport Elements	Transport network
Active Well Type		Hydrogeology	Geology
activity code value		Production and Industrial Facilities	Production and in
Administrative Hierarchy Level		Administrative Units	Administrative un
Aerodrome Category		Air Transport Network	Transport network

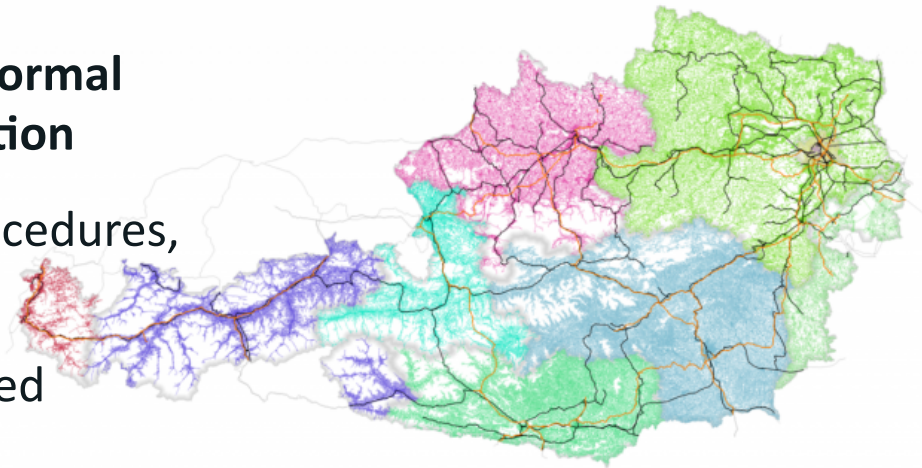
Map Legends

- stream, canal <5m wide
- occasionally water-bearing
- above ground water conduit
- underground water conduit
- spring
- well
- cistern
- Bad* outdoor swimming pool
- reservoir
- water tower
- direction of flow
- kilometre marker
- torrent control
- waterfall
- sluice, weir
- groyne
- water level
- ferry
- pier
- hydroelectric power plant with lock

Conclusions

Actions to take and knowledge to expand

- A **national topographic thesaurus** and ontology at the Federal Office of Metrology and Surveying
- Supporting the creation of topographic **ontological foundations**
- Initiate and motivate for a geospatial thesaurus federation
- Extending knowledge and skills for a **formal geospatial knowledge representation**
- Promoting standardized methods, procedures, formats and interfaces
- Stimulate collaborative and coordinated approaches



Contact

Dr.techn. Markus Jobst

CIO - Chief Information Officer

Email: markus.jobst (at) bev.gv.at

Schiffamtsgasse 1-3, 1020 Wien, Österreich

