Geoinformation Strategy in Austria and at BEV

General Note (1)

In Austria a National Geoinformation driven by a political process formally does not exist.

- This also means that there is no specific funding for the implementation of strategic goals of a spatial data infrastructure through legislation or politics.
- But there is a national spatial data infrastructure that corresponds to some strategic goals.

General Note (2)

In Austria a National Geoinformation driven by a political process formaly does not exist.

- It has been developed pragmatically from the requirements of the customers and the cooperation of administrations at the different levels, the big infrastructure companies and the BEV.
- Geoinformation Strategy in Austria is something like an Ecosystem

- Geoinformation Ecosystem Austria
- BEV as trusted partner and provider
- Importance of rust
- Some important points of dissemination
- Challenges

Geoinformation Ecosystem Austria

- Ministries / Federal Agencies
- Federal States (Austrian "Länder")
- Municipalities
- Private Sector
- Societies













Main Guiding Principles

- Creation /maintenance of geospatial data: only at the most effective and responsible body.
- Provision of consistent geospatial data
- Geospatial data of one authority level can be used by all other authority levels (distributed data management).
- Conditions of access and use must not constrain a necessary extensive use.
 But special conditions are intended to prevent a pointless strategy of stockpiling by users.
- Metadata of geospatial data, services and their accessibility and use have to be publicly available without constraints.
- One main technical solution:
 Service-Oriented Architecture

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Status and business model

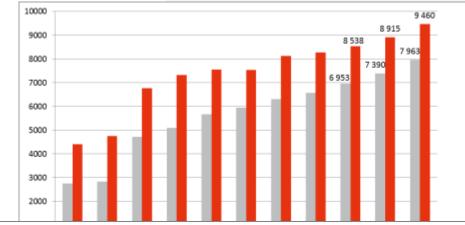
- BEV is a subordinate authority of the Federal Ministry of Labor and Economic Affairs
- BEV is responsible for Cadaster, Basics Geodesy; International and National Reference Systems, General Geodetic Core Data and the most important Provider for Geoinformation in Austria
- The BEV is responsible for data collection, quality assurance of the basic geodata, for processing related to the basic products and services and for national distribution

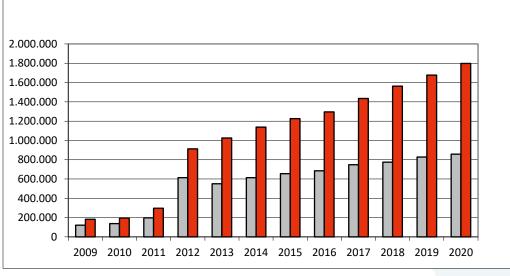
Strategy and principles for data dissemination!

- Date should be consistent but as up-do-date as possible (optimizing internal supply chain)
- Mass data covering the whole nation for administrative purpose are also 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.

e-geodata Austria acceptance

- Permanent increasing amount of webshop clients
- Increasing orders
- Delivery sizes and transfer rates
- Increasing infrastructure demands (storage, performance, bandwidth, ...)





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Trusted Service Partner

- Trusted content
- Trusted services
- Trusted infrastructure
- Trusted partners
- Trusted collaboration (custodianship, stewardship)





Trust from a geospatial perspective

- Accuracy/Precision
 e.g. geographical reference frames
- Actuality
 e.g. closeness to production cycles
- Completeness, Consistency, Reliability, Relevance
 FAIR (Findable, Accessible; Interoperable, Reusable)
- Impact on **functional space** of regional planning e.g. influence of topographic structures
- Historicized understanding of space
 e.g. in terms of semantic structuring of space
- therefore creating a comprehensive spatial long-term memory











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BEV roadmap for a common geospatial dataspace

Geoportal Basis

(in Planung I11; Geonetwork Update erfolgt, DCAT AP Teststellung)

Metadatenverwaltung, -identifiers, publikation, -Zugangsschnittstellenverwaltung,

Anknüpfung an DCAT-AP (RDF)
Einbettung der
Klassifizierungssysteme INSPIRE
und OpenData

Stichtagsdatenproduktion

Periodische automatisierte Produktion der Stichtagsdaten (~HVD) AU (VGD), CP (Kataster), AD (Adressen), ...

Geoportal in der Cloud

(in Planung I11; derzeit: Einholung der Preise)

Ablage der unentgeltlichen Datensätze, Geoportal Betrieb, Nutzung von externen Cloud Anbietern für das Geoportal und Downloaddatensätze, Betrieb von WMS für die Downloaddatensätze

INSPIRE Konformität Workshops

Geoportal Basic

RDE

Stichtagsproduktion

VDE

Geoportal Advanced

BEV Registry

INSPIRE Validierung

RDE 2019-2020

DOP, ADA, ALS abgeschlossen Urmappe in Arbeit LandCover in Planung

Vector DB 2021

Vektordaten für die Dienstebereistellung

Vector Daten Engine

Serverarchitektur und Entwicklungsprozedere für die (PSI/INSPIRE konforme) GeoDatenDienste-Bereitstellung und Cachingmethoden (auf Basis der Vector DB)

BEV Registry

(in Planung I11)

SSB

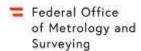
(Schnittstellenbeschreibungen als PDF) in automatisierte Form als Register abbilden, Anbindung an das BEV Geoportal,

Zentrale ID Verwaltung und DOI Verwaltung für alle Downloadprodukte Federal Office of Metrology and Surveying

BEV Geoportal data.bev.gv.at

= Bundesamt



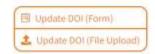


Persistent global data identifiers – citation

DataCite Fabrica About Support PTNC.BEV4DATA -

Bundesamt für Eich- und Vermessungswesen / DOIs

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



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 Österrei
Die Daten sind für folgende Grenzen vorhanden: 1) Katastralgemeindegrenze 2) Gemeindegrenze
Gerichtsbezirksgrenze 5) Vermessungssprengelgrenze 6) Finanzamtsbereichsgrenze 7) Bundeslä



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

MLA Vancouver Chicago IEEE

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Challenges (1)

Data Consistency:

- The faster the data is distributed, the more disruptive inconsistencies in terms of space and time are.
 Inconsistencies destroy trust and generate enormous additional expenditure.
- Consistency between different Data Sources and at the margins of administrative responsibility

Don't publish any data you don't know about the consistency of

Challenges (2)

Data dissemination does not prohibit incorrect usage:

- Passing on correct data does not prevent faulty further processing and incorrect information! Consistency between different Data Sources and at the margins of administrative responsibility.
- You need additional basic services to guarantee correct usage and interpretation. (e.g. Transformation in space and time). This means additional costs

Challenges (3)

Economical challenges:

- Recruiting of stuff:
 Necessity of employees with a very broad knowledge in the special topic, in information technology and in operational tasks
- Increasing costs for maintenance:
 High availability of memory-intensive mass data in services (INSPIRE Requirement < > PSI / HVD)

Thank You!

