Central Geodata Node in Saxony-Anhalt
(Germany)

Diverse Use of the Technology Components

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Central Geodata Node in Saxony-Anhalt

**Agenda**

- Strategy Concerning a Geodata Network
  - Central Geodata Node
  - Local Geodata Nodes
- Central Technologies for Geodata Networking
- Methods of Data Provision
- Geodata Management:
  - Data Modelling in the Central Geodata Node
  - INSPIRE
  - XÖV
Strategy Concerning a Geodata Network

Spatial data exist in heterogeneous formats and systems across various parts of public authorities

Objectives:
- Optimisation of infrastructure services
- Harmonisation in geodata networking
- Standardised supply for users

Implementation:
- Upgrade of existing technology
- Development of local geodata nodes
- Coordination of central thematic data models
Cascading integration of spatial data from local geodata nodes in a powerful central geodata node using transformation services
Central Technologies for Geodata Networking

- View and Download Services
- ArcGIS Server
- ArcGIS Desktop
- Feature Service
- FME Server
- FME Desktop
- Local Geodata Nodes

1. View and Download Services
2. Email
3. Local Use
   - Draw
   - Upload via CSV
4. ArcGIS Desktop
5. Digitise Edit

ArcGIS
- Desktop license.manager
- security.manager
- Feature Service
- Map viewer
- Portal for ArcGIS

Geodata Applications
- Geodata Visualisation

Map viewer
- Local Use
- Draw
- Upload via CSV

Feature Service
- Map viewer

ArcGIS Server
- Feature Service

Local Geodata Nodes
- Local DB
- WFS
- Shape DXF etc.
- URL to the data
- Email
- Excel CSV

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Central Technologies for Geodata Networking

Create Interoperability for Geodata Networking

- Agree on a uniform data model
- Convert different data sources into a target data model

Spatial Interpretation of Geodata

- Interconnect and blend geographic and/or alphanumeric information
Central Technologies for Geodata Networking

- Generate spatial data services
- View Services
- Download Services
- Protect spatial data services

- Authorise spatial data services in a user-specific way
- Safeguard license, usage and data protection related framework

Create standardised spatial data services

- Spatial
- Layers
- Objects
- Attributes
Central Technologies for Geodata Networking

Uniform Visualisation Despite Different Data Sources

- Social facilities
- Geodata Applications
- Geodata Visualisation
- Spatial data and spatial data services
- Agriculture and horticulture
- Geology and mining
- Road network
- Water data
- Digital administrative boundaries

☑ Various possibilities of reuse
☑ Added value for professional users, citizens, public authorities, economic players…
Methods of Data Provision

1. WFS
2. Email or URL
3. Digitalisation or geocoding
4. Schema transformation on the local node
5. Processing of data
Data Model: INSPIRE

Target data model V 3.1

Data processing:
Implementation with FME-Desktop

Import in:
INSPIRE compliant data into ArcMap

View/Download:
Publication of INSPIRE services

Schema mapping:
Data model of the source data - INSPIRE data model
Data Modelling in the Central Geodata Node - XÖV
Geodata Management – Coordination of a Central Data Model

- In Saxony-Anhalt: Local governments are not obliged to comply with INSPIRE
- Local spatial data are
  - harmonised, transformed via ETL processes
  - and generated as standard-compliant spatial data services

If possible
- by using models with a high (inter)national extent of standardisation and dissemination
  - XÖV standards

- Projects:
  - Standardised data exchange to “points of interest” = XErleben
  - Standardised data exchange to “Urban land-use planning” = XPlanung
Data Modelling in the Central Geodata Node - XÖV
Geodata Management – Coordination of a Central Data Model

Administrative district Börde

Administrative district Saalekreis

Local Geodata Node

WFS

Local DB

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The XErleben Model covers the INSPIRE Theme “Utility and governmental services” (Annex III) in a large part.

The following areas can be recorded and then prepared for INSPIRE:

- Public administration offices
- Civil protection sites
- Administration for education
- Administration for health
- Utility and disposal facilities

The Standard XPlanung will be applicable in the INSPIRE-Theme “Land use” (Annex III).

Spatial data that are available in the XPlanGML model can meet all requirements of the INSPIRE Data Specification for “Land use”.
Contact

Thank you for your attention!

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