GEOSPATIAL WORLD FORUM

TRANSFORMING ECONOMIES IN 5G ERA
The Geospatial Way!

7-9 April 2020 /// Amsterdam

www.geospatialworldforum.org

CLICK TO KNOW MORE
Land Administration in Germany

Peter Creuzer
National Economy

- Area: ~357,000 km²;
- ~82 million citizens; ~229 citizens/km²
- Gross domestic product: 2570 billion € in 2011
- Economic growth 2011: +3 %
- Settlements: ~47700 km² (2010)
- Land consumption: 77 hectares/day in 2010

Source: www.destatis.de
Real Estate Market

- Overall land value: ~9 trillion € (estimated)
- ~ 64.5 million land parcels
- Property transactions 2010: ~148 billion € (turnover), 3520 km², ~954 000 transactions
- Outstanding debts for mortgages per household: ~ 24.500 €
- 48% of private households own real estate (2008)
Land Administration

- Guarantee of ownership and/or security of tenure
- Land and property taxation
- Security for credit
- Guarantee of judicial procedures relating to land rights
- Reduction of land disputes
- Development and monitoring of land and mortgage markets
- Promotion of improvement of land and buildings
- Improvement of urban planning and infrastructure development
- Environmental management
- Statistical data ...
Land Register - Inventory

⇒ Serial number of immovable property
⇒ Cadastral district, sub-district, parcel identifier
⇒ Location, area, land use (description)
⇒ Rights, co-ownership acc. to § 3 (3) GBO

Sections 1 - 3

⇒ Owner, serial number in inventory
⇒ Encumbrances, restrictions and limitations (servitudes, hereditary building rights, living rights, limitations to the right of disposal. Order of standing of rights
⇒ Rights in rem (mortgages, land charges, annuity land charges)

Geospatial Base Data

Uniform geodetic reference system - position, height, gravity -

Substantial structural facilities *without buildings and dwellings*

Land use and special vegetation

Terrain contour lines

Land parcels

Information on ownership

Buildings and dwellings

Public restrictions, encumbrances *or other features (soil valuation)*
Standardised Web Services

Dissemination of AAA-Data

WebMapService (WMS)

- WMS 1.1.1 (future WMS 1.3)
- Configuration of symbols with StyledLayerDescriptor (SLD)/Symbology Encoding (SE)

WebFeatureService (WFS)

- WFS 1.1 (future WFS 2.0)
- For all AAA-object types
- Geometry: Simple Feature and NAS-conform

WebMapServices:
- BasisDLM-WMS
- WebAtlas.de-WMTS
- DLM50-WMS (WebAtlas.de)
- AFIS-WMS
- ALKIS-WMS

WebFeatureServices:
- BasisDLM-WFS
- DLM50-WFS
- AFIS-WFS
- ALKIS-WFS

Current stage of implementation
Market Transparency

- GRETI Germany 2010: No. 10.
- Indicative land and property values
- Market functions and effects on general conditions
- Facilitate nation-wide comparisons
- Land prices and land-use patterns to be used as indictors in processes such as urban sprawl (EEA 2010)
Conclusions

- Land administration data provide the sound base for sustainable development.
- The AAA-based GIS, including cadastre and mapping are playing a key role for implementation of the national spatial data infrastructure and are needed to address the urgent planning and implementation challenges of the future as well as the requirements of the land market.
- Implementation of the INSPIRE-Directive of the EU is a key challenge.