ALKIS – the new standard for real estate cadastre in Germany

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Time travelling
Agenda

- CMA`s in Germany / special situation
- Initial situation for AAA
- Completion of ALKIS
- Costumers point of view
- Prominent costumers
- Further steps
Organization of cadastral administration

- 16 Bundesländer (Land/States)
  - 16 different cadastral laws
  - 16 cadastral authorities

- Working Committee of the Surveying Authorities of the Land/States of the Federal Republic of Germany (AdV)
  - recommends Germanwide standards
Situation 20 years ago

State survey data
- Old technical concepts
- Different modelling concepts
- Different data definition and formats
- Having data twice
- Having data separated
- Different implementations throughout Germany

Cadastral data

Topographic mapping data

Germany
AdV resolution in 1997

- **AdV** – resolution 101/24 “Concept on the Modelling of Geoinformation of Official Surveying and Mapping”

  - Documentation on the Modelling of Geoinformation of Official Surveying and Mapping (GeoInfoDoc)
  - Still separated, but:
    - same modelling
    - same data formats
    - only few data twice
ALKIS for entire Germany:

- GeoInfoDoc 6.0.1
ALKIS contents – core data

- Cadastral Parcels (including precise coordinates)
- Buildings
- Public-Law Restrictions
- "Actual Use" (Mix of LC / LU)
- Owner Information
- Appraisal of Soil
How to get ALKIS-data?

single data purchase:

- “traditional way” or E-government
- extract of data in database (XML:NAS-BDA)

recurring data purchase:

- automatic data transfer
  - differential data update (NAS-NBA)
  - webservices (WMS / WFS)

future standard?

No way to get data german wide!

No Central Office
All data open:
- Berlin
- Hamburg
- North Rhine-Westphalia (2017)
- Thuringia (2017)

Partially open data:
- Rhineland-Palatinate
<table>
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<tr>
<th>Customers point of view</th>
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<td>▪ Citizens</td>
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<td>▪ Notaries</td>
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<td>▪ Same content</td>
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<td>▪ different look</td>
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<td>▪ other CRS – now ETRS89/UTM</td>
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<td>▪ Same modelling germanwide</td>
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Governement agencies:

- Land Registry
- Land development
  - Information Systems based on AAA-Basic-Schema
- Financial administration
Financial administration
„Back to the roots“

- **now:**
  - Paper exchange

- **Planned – 1st step:**
  - Data exchange
  - ALKIS core data

- **Planned, 2nd step:**
  - Mass valuation for property tax
  - Using LoD2-Buildings
- **Growth of Settlement- and Traffic-Area**
  - ALKIS-data for monitoring the 30 ha – target
  - Index on land consumption
  - Discontinuity as a result of ALKIS
  - Land Coverage / Land Use not available

- **Census 2021**
  - Using ALKIS – data: Cadastral Parcels, Buildings, Adresses, Owner
good quality (2015)  
conformity to AdV-data-specifications  
best quality (2020)
the next 5 years

- ALKIS – GeoInfoDoc 7.0.2
  - 3D - Buildings
  - LoD2 will become ALKIS core-data
“actual use” will be split into

- land coverage and
- land use
vision for the next 15 years

AAA in 2015

Abbildung 1: Ausgangssituation AAA
From AAA to 1A: “GeoBasisDE”
History and future of ALKIS

1997
- AdV – Resolution "Birth of ALKIS"

2010
- ALKIS in Hamburg, Rhineland-Palatinate, Hessen
- ALKIS ready in Germany (GID 6.0.1)

2015
- Statistical Agencies data exchange
- Financial Agencies data exchange, step 1

2016
- LEFIS (Land Development IS)

2017
- ALKIS ready in Germany (GID 7.0.2)

2018
- 3D-buildings LoD2 (GID 7.1.7)

2020
- Land Use / Land Coverage

2021
- Financial Agencies data exchange, step 2
- Census 2021

2022
- DaBaG (Land Registry Database)
- Financial Agencies data exchange, step 2

2023
- 1A - GeoBasisDE
- Census 2023

2030
- 3D-buildings LoD3
- LAND2 (GID 8.0.3)
- Financial Agencies data exchange, step 3
- LEFIS (Land Development IS)

2040
- 3D-buildings LoD4
- Financial Agencies data exchange, step 4
- LEFIS (Land Development IS)
http://www.adv-online.de/AAA-Modell/Sachstand-der-Migration/


fub – Flächenmanagement und Bodenordnung 5/2015