




Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland



## Geospatial Reference Data as Public Sector Information - Involvement of the Surveying and Mapping Authorities - The German Way

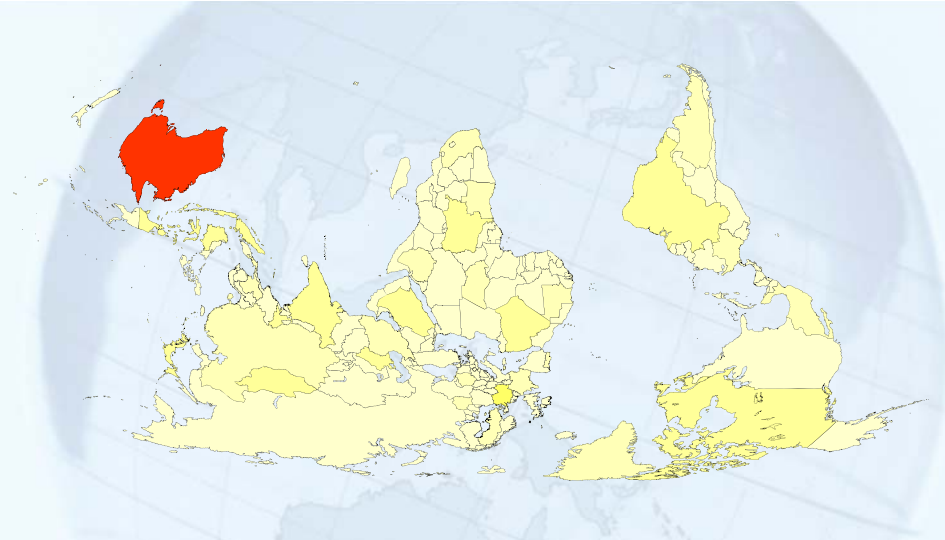
AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Australia – no longer down under –



AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Australia no longer down under, but Germany



AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Europe and Germany



**Europe**

**Area: 10,2 mill. sqkm**

**Inhabitants: 700 mill.**

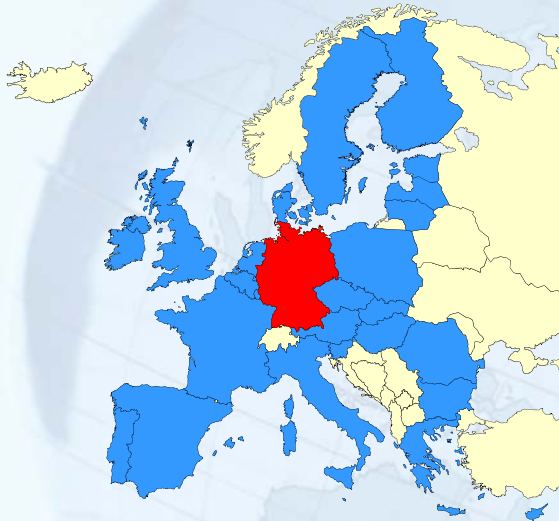
AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Europe and Germany



### Europe

Area: 10,2 mill. sqkm

Inhabitants: 700 mill.

### EU Europe

Area: 4,3 mill. sqkm

Inhabitants: 500 mill.

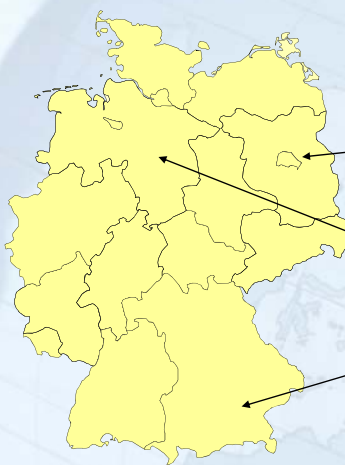
AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Germany



Federal Republic of  
Germany consists of  
16 states („Länder“)

Capital: Berlin

Area 357.023 sqkm

Inhabitants 82,5 mio.

Lower Saxony  
(capital Hannover)

Bavaria (capital Munich)

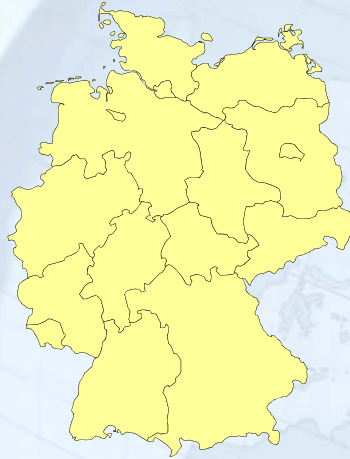
AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Official Surveying and Mapping in Germany



- Official surveying and mapping belongs to the responsibilities of the 16 states, not to the federal level
- State Survey and Real Estate Cadastre in one authority, but different organisational structures
- All data provided by the official surveying and mapping authorities are geospatial reference data

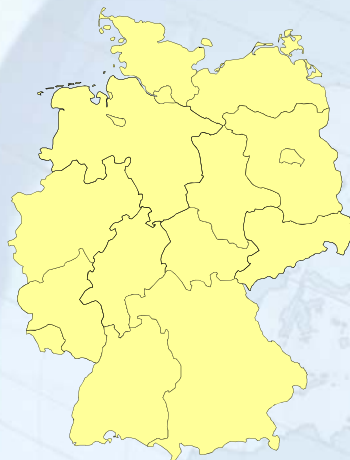
AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes




Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## AdV – an umbrella organisation on voluntary basis since 62 years



 Federal Ministry  
of the Interior

 Federal Ministry  
of Defence

 Federal Ministry  
of Transport, Building  
and Urban Development

Bund-Länder-Arbeitsgemeinschaft **ARGE**  
**LANDENTWICKLUNG**

**German  
Geodetic  
Commission**

AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Establishing German SDI – GDI-DE

- Federal and state level in Germany work together establishing the German SDI (GDI-DE)
- In most of the federal states the surveying and mapping authorities are the leading forces, as they provide the spatial reference data
- The geoinformation industry is involved by the German Commission of the Economics of Geoinformation (chaired by the Federal Ministry of Economics and Technology)

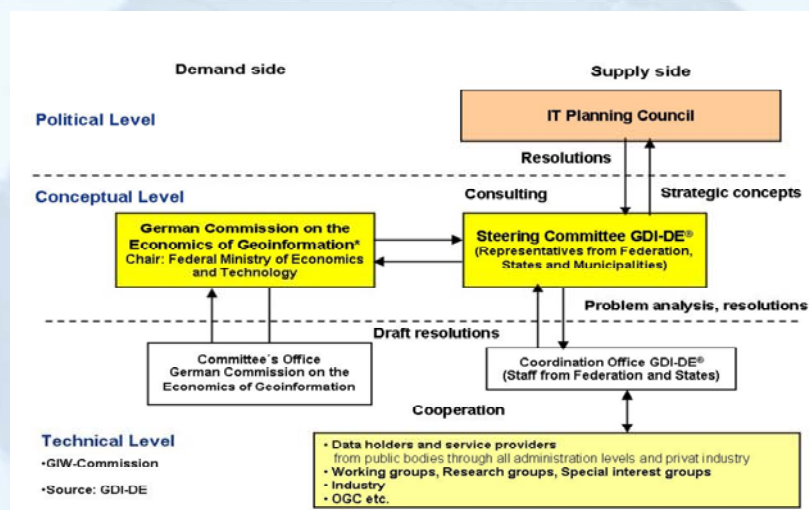
AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Spatial Data Infrastructure Germany (GDI-DE)



AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Geospatial Reference Data

- **The surveying and mapping authorities in Germany are „the“ providers for these geospatial reference data**
- **Geospatial reference data are public sector information**

AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Geospatial reference data as public sector information

- **Aims:**
  - **Geospatial reference data are the basis for all other datasets within a spatial data infrastructure**
  - **Geospatial reference data as public sector information shall be used in the economy**
- **Benefits:**
  - **Collection of geospatial reference data is an infrastructural measure (task by rights)**
  - **Data cover the whole country and not only special („interesting“) areas**
  - **Guarantee of permanent updating**

AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes





Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Product catalogue of the official German surveying and mapping

- **The AAA project of AdV contributes to the German SDI with WMS, WFS and CSW with its ISO-based data model consisting of**
  - The Authoritative Control Point Information System **AFIS®** that comprises information on the geodetic spatial reference (3D position, position and height and physical gravity values) as well as information of the satellite positioning system SAPOS® and of the quasi-geoid.
  - The Authoritative Real Estate Cadastre Information System **ALKIS®** that comprises the descriptive and illustrative cadastral components.
  - The Authoritative Topographic-Cartographic Information System **ATKIS®** that comprises the following data sets:

AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## ATKIS product catalogue

- **Digital landscape models DLM25 (“Basis-DLM”), DLM 50 and DLM 250 / DLM 1000 (processed in the Federal Agency for Cartography and Geodesy –BKG-)**
- **Digital terrain models DGM1, DGM2, DGM5 (not in all federal states), DGM10, DGM25, DGM50 and DGM200 / DGM1000 (processed in the BKG)**
- **Digital cartographic models DTK10 (only in some federal states), DTK25, DTK50 / DTK100 as joint civil/military map and DTK250 / DTK1000 (processed in the BKG).**
- **Digital orthophotos with a resolution of 40 cm (DOP40), in some federal states already 20 cm (DOP20).**

AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Official valuation information

- **Official valuation information determined by the expert committees for land parcel values can / will be provided in a standardised and SDI-compliant manner using VBORIS.**
- **For the realisation of the VBORIS concept adopted by the AdV, a central information system platform ([www.gutachterausschuesse-online.de](http://www.gutachterausschuesse-online.de)) linking all existing standard ground values information systems of the federal states with each other has been activated.**
- **Since mid-2009, standard ground values from a total of ten federal states have been accessible via the joint portal**

AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Data distribution

- **Generally the state survey offices and the cadastral offices are the distribution points within the 16 federal states**
- **Certain product groups are provided nationally and harmonised using three central distribution points:**
  - **Georeferenced house numbers and house outlines (derived from the cadastral data)**
  - **Satellite positioning data (part of the German reference system) usable for cadastral and technical surveys and navigation in coastal areas**
  - **Geotopographic data (DLM, DEM) and digital orthophotos**

AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes





Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Data distribution principles

- **Exclusive license usage right for one customer is not allowed**
- **Fees are effective both for private persons / institutions and public bodies**
- **Viewing is free (definition of „viewing“ may be difficult)**
- **Using the data is never free of charge, but ...**
- **... Ideas to give some data sets for free**

AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland

## Pricing Policy

- **The 16 states are independent in their pricing policy (as well as in the legislation)**
- **Fees are regulated by law (or bylaw)**
  - Therefore fees may vary from state to state
- **Fees follow both the „benefits received principle“ and the „cost recovery principle“ (no full cost recovery, but cost recovery for updating and administration)**
- **Possibility of licensing only for handling costs (ca. 20-30% of the regular fee)**
- **Possibility to give data for free in the beginning and then compensation by royalties (depending on the budget rules)**

AMTLICHES DEUTSCHES VERMESSUNGSWESEN

FIG Congress 2010 Sydney -  
TS 6B Wilhelm Zeddes



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland



**Thank you very much for your attention**

**Please visit us at  
[www.adv-online.de](http://www.adv-online.de)**

AMTLICHES DEUTSCHES VERMESSUNGSWESEN