



Arbeitsgemeinschaft der Vermessungsverwaltungen  
der Länder der Bundesrepublik Deutschland



## **Safety, Mobility, Sustainability ... Powered by INSPIRE**

Benefits for the region

Base Service WebAtlasDE



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# Benefits for the region Reference Service WebAtlasDE

## Content

- Co-operation of the surveying authorities in Germany
  - Objectives
  - Structure
  - Tasks
- WebAtlasDE
  - Challenges
  - Production
  - Provision



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## Co-operation of the surveying authorities in Germany

Official surveying and mapping in Germany is within the responsibilities of the Laender (Art. 70 GG and Art. 71–74 GG)

- Securing ownership rights (real estate cadastre)
- Authoritative spatial reference
- Geotopography
- Geospatial reference information system



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## Co-operation of the surveying authorities in Germany

- Working Committee of the Surveying Authorities of the Laender of the Federal Republic of Germany (AdV)
- Members: 16 Laender und 3 Federal Ministries
- Permanent Guests:
  - Working Committee for Rural Development
  - German Geodetic Commission (DGK)
- Co-ordination of the official German surveying within the context of the federal structure of Germany
- To achieve, maintain and further develop harmonisation and standardisation



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## Structure of AdV

<b>Plenary</b>				
<b>Members (Laender and federal institutions), permanent guests</b>				
<b>President of AdV</b> Ulrich Püß (TH)		<b>Secretary General</b> Marcus Wandinger (BY)		
<b>Working groups</b>				
<b>AK RB</b> Spatial reference  Dr. Cord Hinrich Jahn (NI)	<b>AK IK</b> Informations and communications technology  Dr. Thomas Grote (LSA)	<b>AK LK</b> Real estate cadastre  Günther Steudle (BW)	<b>AK GT</b> Geotopography  Michael Osterhold (TH)	<b>Taskforce PRM</b> Public Relations and Marketing  Gisela Fabian (BE)



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## Co-operation of the surveying authorities in Germany

### Tasks of AdV (1)

Regulation of technical matters of fundamental and national importance to official surveying and mapping in a standardised manner, e.g.

- Structuring of the authoritative execution of tasks of the official surveying in Germany
- Implementation of the standardised spatial reference system ETRS89 with UTM-coordinates
- Running of the satellite-supported positioning service SAPOS<sup>®</sup>



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## Co-operation of the surveying authorities in Germany

### Tasks of AdV (2)

Creation of a standardised set of geographic reference data that is oriented at the needs of today's information society:

- Authoritative Control Point Information System (AFIS<sup>®</sup>)
- Authoritative Real Estate Cadastre Information System (ALKIS<sup>®</sup>)
- Authoritative Topographic Cartographic Information System (ATKIS<sup>®</sup>)
- Common model for AFIS<sup>®</sup>-ALKIS<sup>®</sup>-ATKIS<sup>®</sup> (AAA<sup>®</sup>-model)
- Common application schema for AAA<sup>®</sup>
- Standardised data interchange interface (NAS)
- Common reference data set



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## Co-operation of the surveying authorities in Germany

### Tasks of AdV (3)

To provide the infrastructure for geospatial reference data as an important component for modern eGovernment architectures, e.g.

- WebAtlasDE
- Gazetteer-Service house coordinates
- Viewer for digital orthophotos (DOP-Viewer)





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## Co-operation of the surveying authorities in Germany

Enhancing co-operation by Administrative Agreement for cooperation on official surveying and mapping in Germany, signed 8 December 2010 (Geobasis Steering Committee):

- Joint projects involving several or all Laender
- Merge of harmonised and quality-checked geographic reference data
- Joint providing and marketing
- Quality review based on AdV standards regarding content and format consistency



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### **WebAtlasDE**

Increased need for a web-based authoritative reference map

First demands coming in 2010 from the economic and administrative sector,  
notably for

- Operation control systems
- Infrastructure and utility atlas
- Broadband atlas
- Energy-reform
- Background map for thematic geographic data
- Reference component in geoportals

Digital Landscape Models (DLM) and Digital Topographic Maps (DTK) were  
unable to fully meet these requirements.



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# Benefits for the region Reference Service WebAtlasDE

## WebAtlasDE

### Challenges

- Full coverage throughout Germany; provision across Laender
- Good performance
- High availability
- „Infinite“ zooming
- Font and signature adjustment at every scale level
- Easy-to-read, standardised map style
- Provision as standardised web service and as background map in geoportals



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## Benefits for the region Reference Service WebAtlasDE

### WebAtlasDE

Decision 123/2 (September 2011) for joint realisation of WebAtlasDE

- Setting of standards (signature catalogues and AdV-profile WMTS) by AdV-Working groups
- Generation of raster data tiles by the Laender (Geobasis Steering Committee)
- Provision of raster data tiles by the Federal Agency for Cartography and Geodesy (BKG)
- Joint marketing by federal and Laender administrations



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## WebAtlasDE

### Signature catalogues and data bases

- 10 scale ranges (appr. from 1 : 1,000 to 1 : 7,000,000)
- In total over 1,800 character and font types
- 1 : 1,000 – 1 : 3,000 (house coordinates and polygons, basis DLM)
- 1 : 3,000 – 1 : 12,000 (building polygons and basis DLM)
- 1 : 12,000 – 1 : 25,000 (basis DLM)
- 1 : 25,000 – 1 : 60,000 (DLM50, basis DLM)
- 1 : 60,000 – 1 : 150,000 (DLM50)
- 1 : 150,000 – 1 : 350,000 (DLM250)
- 1 : 350,000 – 1 : 7,000,000 (DLM1000)



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# WebAtlasDE

## Production steps

- Model generalisation (DLM50 derived from basis DLM)
- Conversion of the data to shape format
- Derivation of the data fit for display
- Production of raster data tiles
- Transmission to BKG via ftp-server
- Total volume of map tiles: 92.7 GB



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# WebAtlasDE

## Provision

- by BKG
- Integration in geoportals of federal and Laender institutions
- Provision as viewing component (Geoportal.DE)
- Provision as WMTS and WMS
- Creation of Sub-URLs



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## WebAtlasDE

### fees and licencing conditions

- Viewing: free of charge
- Internal use for research and teaching: free of charge
- Internal private use: free of charge
- WebAtlasDE.light (without building polygons): free of charge
- Internal business use: 380 €
- External business use: depending on intensity of use
- Licencing through joint geodata centre at BKG, or
- Licencing for authorities of the Laender or municipalities through the Mapping Agencies of the Laender





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# Benefits for the region Reference Service WebAtlasDE

## WebAtlasDE

### Example

ca. 1 : 5,000,000





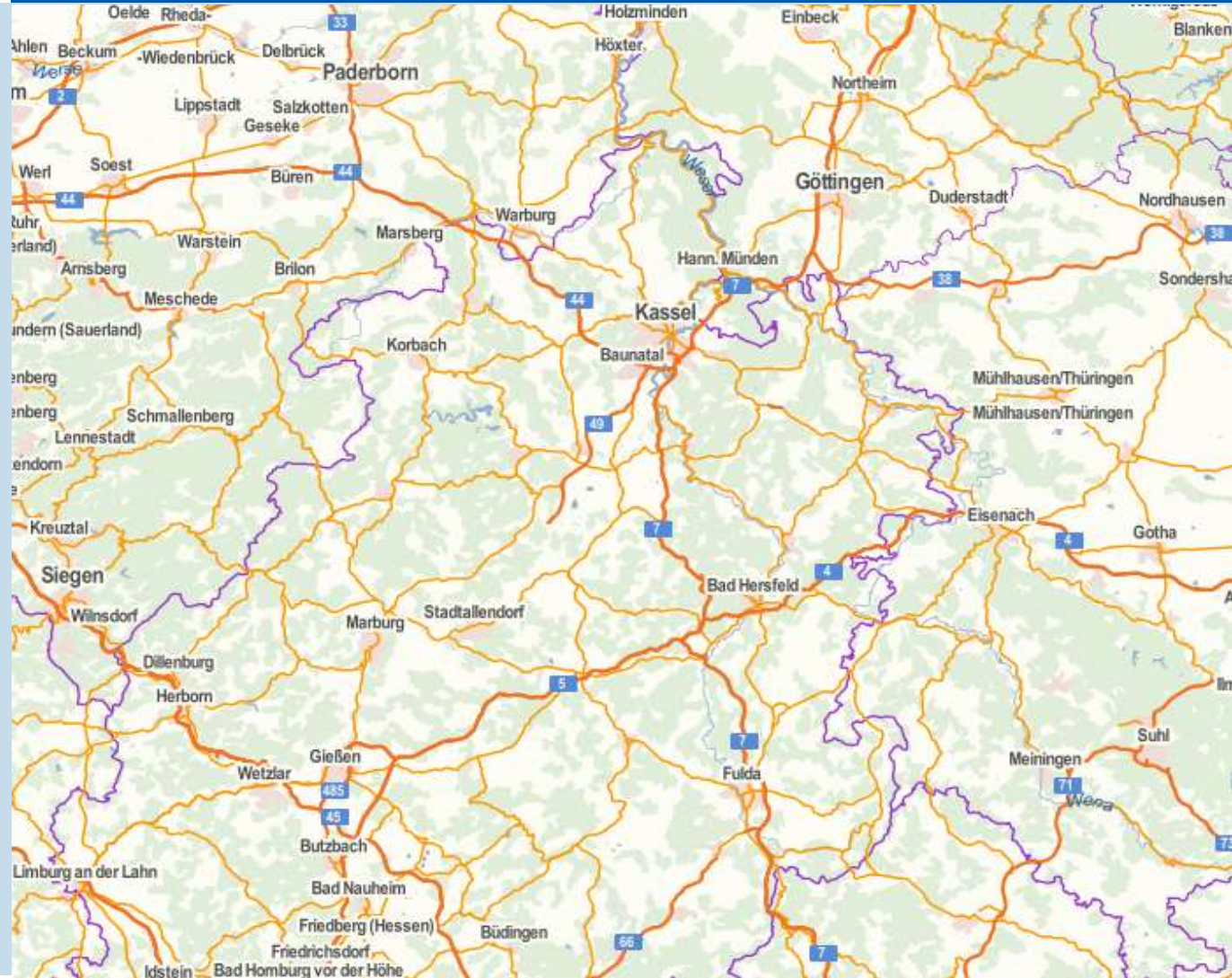
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# Benefits for the region Reference Service WebAtlasDE

## WebAtlasDE

### Example

ca. 1 : 1,000,000





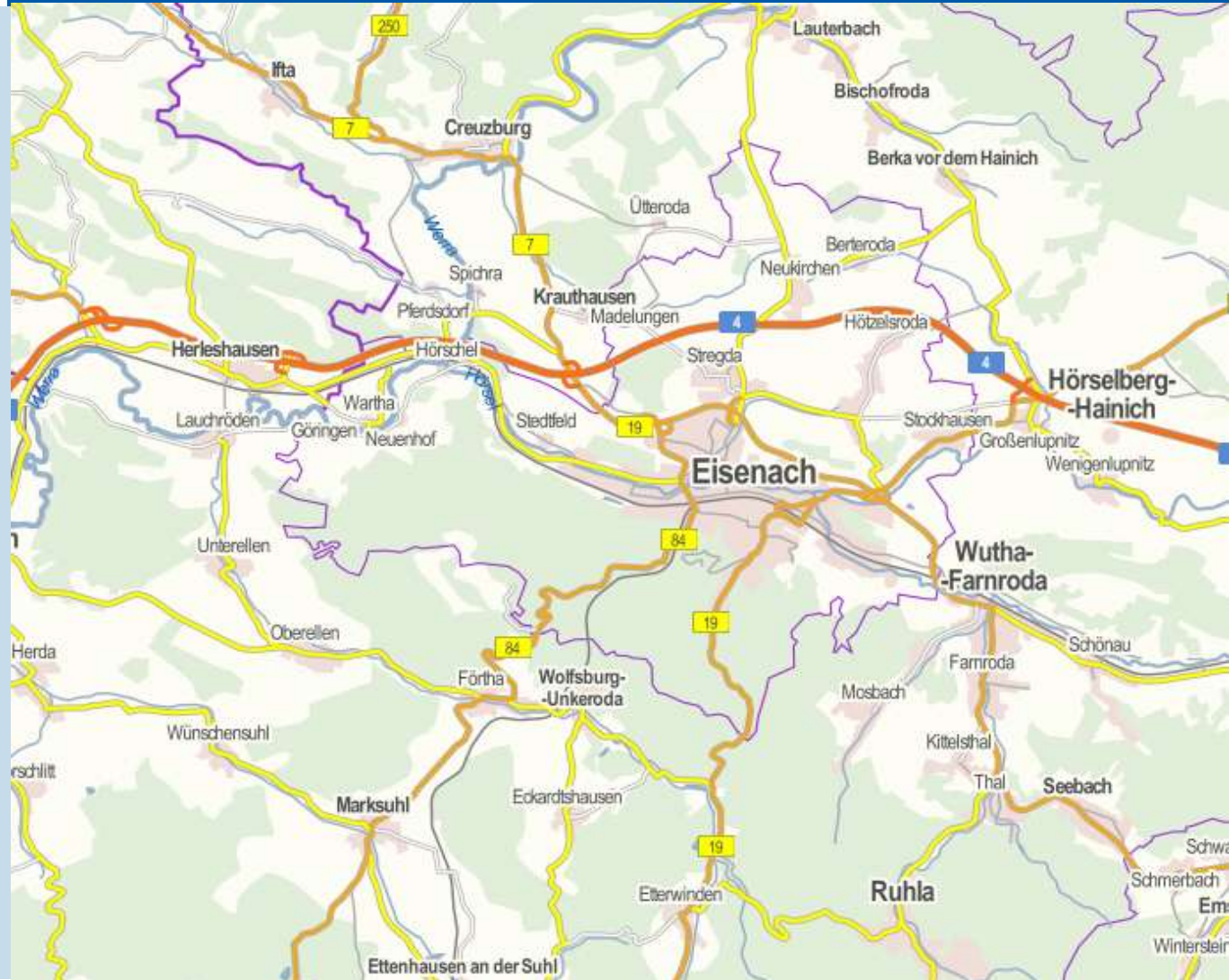
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# Benefits for the region Reference Service WebAtlasDE

## WebAtlasDE

### Example

ca. 1 : 150,000

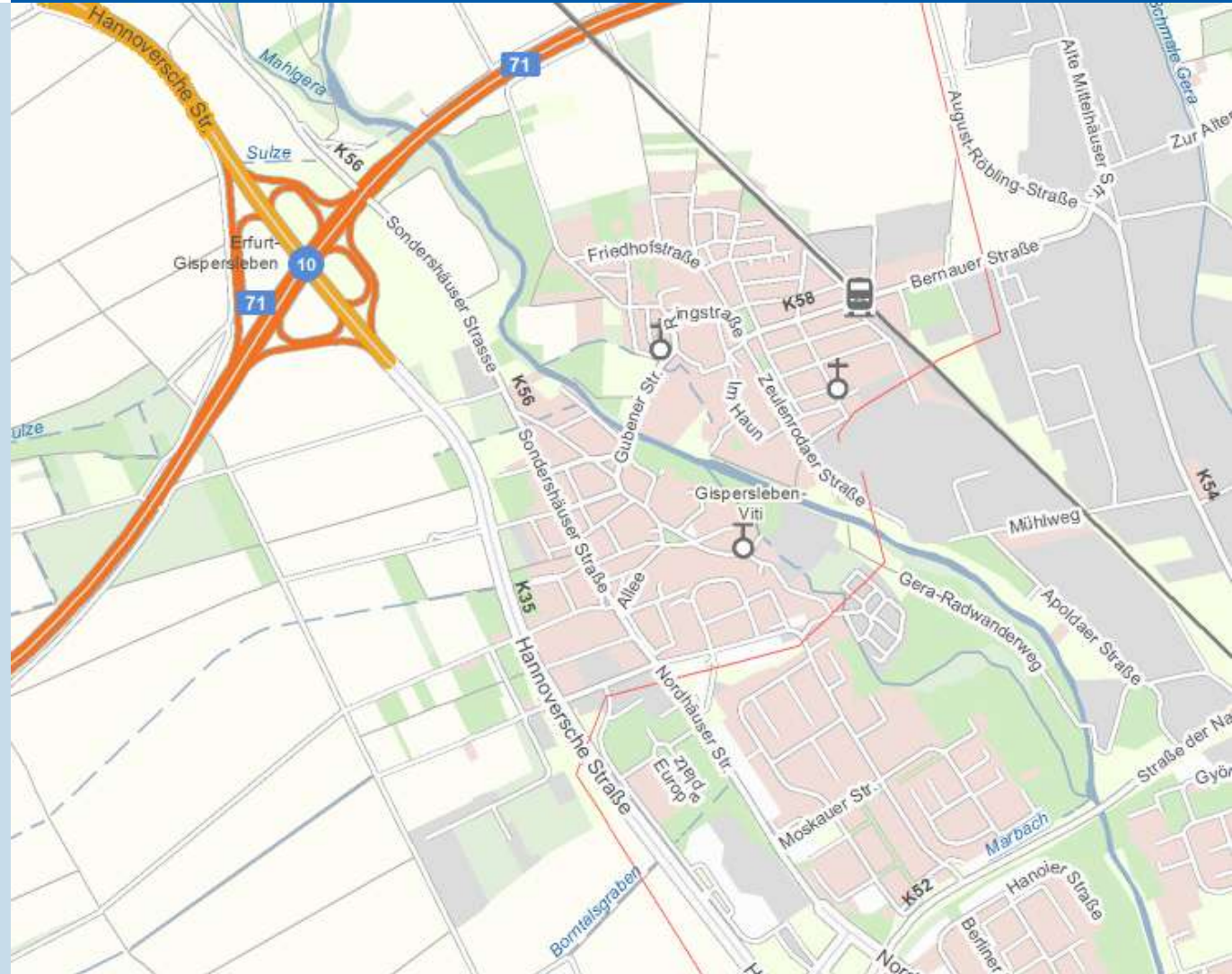




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**WebAtlasDE**  
Example  
ca. 1 : 20,000





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# Benefits for the region Reference Service WebAtlasDE

## WebAtlasDE

Example

ca. 1 : 5,000





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# Benefits for the region Reference Service WebAtlasDE

## WebAtlasDE

### Example

ca. 1 : 2,000

