

## Geo-Data Infrastructure for Land Management in Austria

Reinfried MANSBERGER

Institute of Surveying, Remote Sensing, and Land Information  
Department of Landscape, Spatial and Infrastructure Sciences  
University of Natural Resources and Applied Life Sciences, Vienna/Austria



Gerhard MUGGENHUBER

Federal Office of Metrology and Surveying, Austria



## Content of Presentation

- The Country
- Land Administration in Austria
- SDI for Land Management in Austria
  - Countrywide Available Data Sets
  - In Specific Areas Existing Data Sets
  - Austrian Contributions for European SDI
- Conclusions



MUGGENHUBER / MANSBERGER: Geodata-Infrastructure for Land Management in Austria

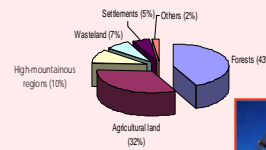
## Austria



MUGGENHUBER / MANSBERGER: Geodata-Infrastructure for Land Management in Austria

## Austria: Statistics

- Area: 83.000 km<sup>2</sup>



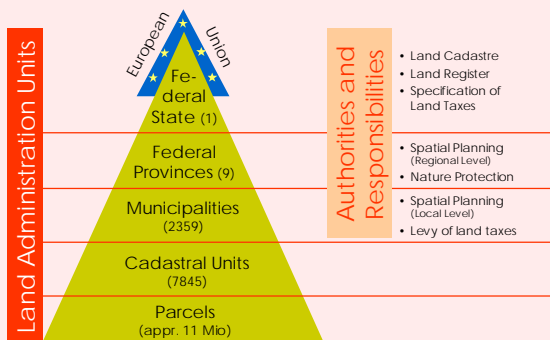
- 8.2 Mio inhabitants
- GNI: \$ 24.000

GDP: 65% services, 33% industry,  
2% forestry and agriculture



MUGGENHUBER / MANSBERGER: Geodata-Infrastructure for Land Management in Austria

## Public Land Administration



MUGGENHUBER / MANSBERGER: Geodata-Infrastructure for Land Management in Austria

## Countrywide Available Data Sets:

### Cadastre

Cadastre: Parcel-based and up-to-date information system, containing physical information about the parcel (geometric description of parcels, coordinates boundary points, size, land use, taxation value etc.)

- 1817 Grundsteuerpatent: Establishment of a countrywide cadastre ("Land Taxation Cadastre")
- 1968 Vermessungsgesetz: Enables Mutation of data sets of the "Land Taxation Cadastre" to datasets of higher quality ("Boundary Cadastre")
- 2003: Completion of digitalisation of the Austrian Cadastral Map (DKM)



MUGGENHUBER / MANSBERGER: Geodata-Infrastructure for Land Management in Austria

Countrywide Available Data Sets:

Land Register

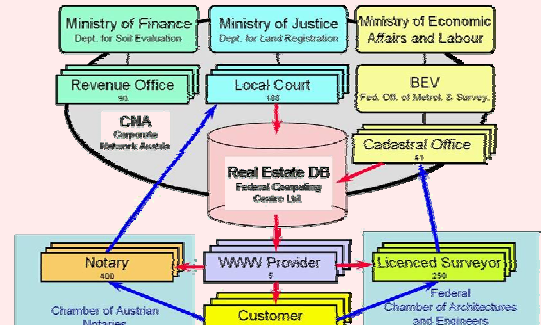
Land Register: Up-to-date and ownership-based register, containing all the information about the interests of lands and buildings (ownership, rights, restrictions, responsibilities, mortgages etc.)

- Properties of Austrian Cadastre and Land Register:
  - Public
  - Legally Binding (registered ownership rights guaranteed by the state authorities)
- 1985: Combination of Cadastre and Land Register to a common data set



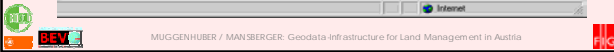
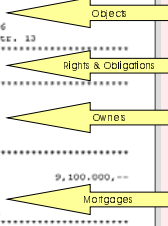
Countrywide Available Data Sets:

Real Estate Data Base

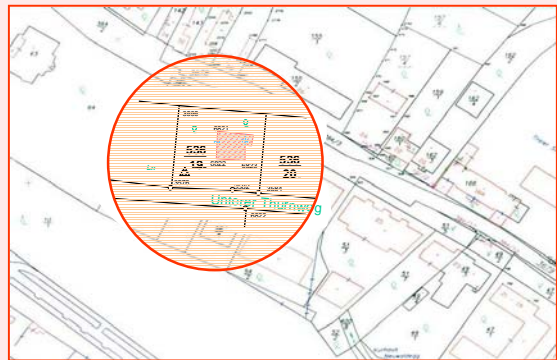


Examples: Web - Access to Geoinformation in Austria

GST-NR	G	BA (NUTZUNG)	FLACHE	GST-ADRESSE
1		GST-Fläche	1314	Baufl. (Gebäude)
2		Baufl. (befestigt)	279	Garnisonsg. 14-16
1 a 8021/1976 Bauplatz (auf) Gst 1 2 a 7206/1904 Denkmalschutz hins Haus auf Gst 1				
1 ANTEIL: 1/2 Evangelischer Verein für Studentenheime ADR: Garnisonsg. 14-16 1090 a 7922/1963 Kaufvertrag 1960-11-25 Eigentumsrecht b 9233/1963 Veräußerungsverbot				
1 a 9233/1963 Schuldchein 1963-12-06 PFANDRECHT 1 3 E. G. VuzZ, NOS 910.000,-,- für Stadt Wien 2 a 9233/1963 VERÄUSSERUNGSVERBOT gem WBF 1954 für Stadt Wien ***** HINWEIS ***** Eintragungen ohne Währungsbezeichnung sind Beträge in ATS GEBNHR: ATS 11,70 ***** 2000-02-01 10:20,06644 BA ***** ZEILEN: 1/1				



Examples: Digital Cadastral Map



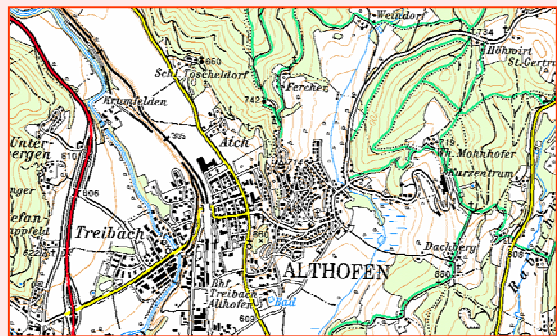
Countrywide Available Data Sets:

Aerial Photographs and Topographic Maps

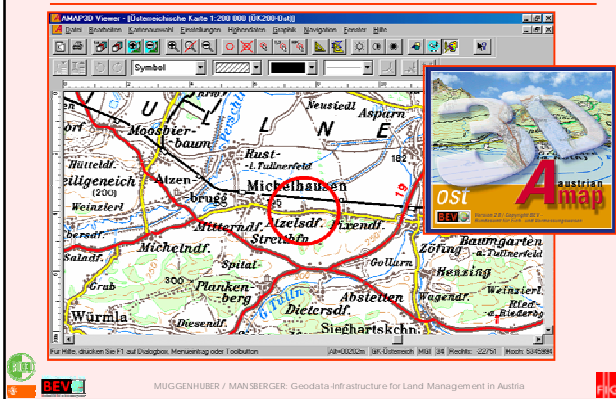
- Aerial Photographs:
  - Countrywide available since ca. 1950
  - Photo scales: -1:30.000 (old); -1:15.000 (new)
  - Film specification: Black/White (old); Colour Infrared and Colour (new)
- Topographic Maps and Data:
  - Scales: 1:50.000; 1:200.000; 1:500.000
  - Analogue and Digital (raster format, some layers also in vector format available)
  - Digital Elevation Model (raster size up to 25m)



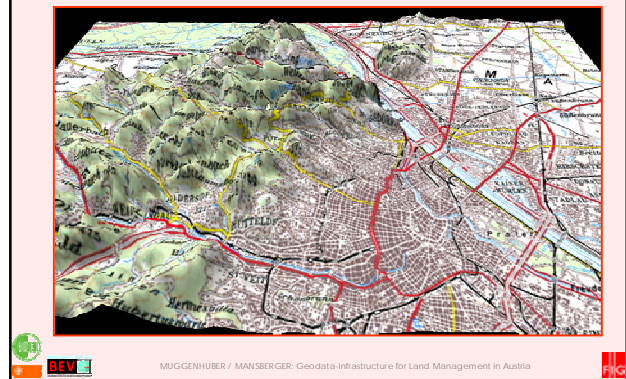
Examples: Austrian Map 1:50.000



Examples: Austrian MAP



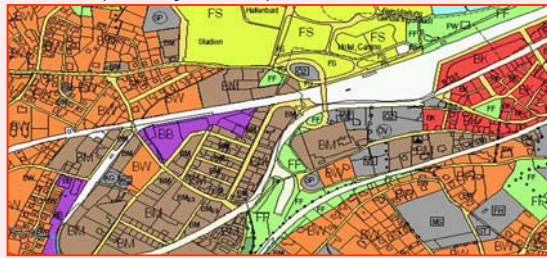
Examples: Austrian MAP 3D



Available Data Sets on a regional or local level:

Zoning Plan

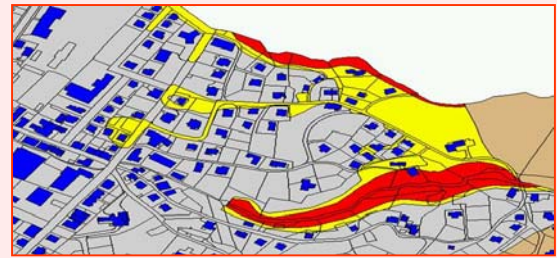
- Outlines assignment or allocation of a specific parcel
- Zoning Plan has a regulation and a development function
- In the responsibility of municipalities



Available Data Sets on a regional or local level:

Danger Area Plan

- Outlines Areas with specific risk of natural disasters (only available in endangered regions)
- Degree of risk indicated in different colour



Austrian Contributions for European SDI

- EuroGEOGRAPHICS
  - Objective of EuroGEOGRAPHICS: Implementation of a European-wide topographic map in the scale of 1:1.000.000 to help the public and the private sector to develop good governance
- EULIS: European Land Information Service
  - Objective of EULIS: Online and always up-to date Europe-wide Information System on property rights across European boundaries
- NATURA 2000
- CORINE Land Cover Project
- EuroRoads
- etc.....

Principles of Austrian GD-Policy (excerpt)

- The implementation and the management of a geo-data (geo-information) infrastructure is a public duty.
- The access of public available geodata is to guarantee in a defined quality.
- Responsibilities and competences for the implementation, the maintenance, and the provision of geodata must be clearly defined.
- The use of geoinformation and the access to geodata should be facilitated in a simple manner. Modern technologies for data access via Internet are to provide (e.g. eGovernment).

## Conclusions

---

- Austria has a long tradition in capturing, maintaining and delivering of Spatial Data Infrastructure
- Austria is a country with a high developed SDI
- In Austria SDI lies in the responsibility of different levels of land administration
- Many data sets of Austrian SDI are available on Internet
- Austria is working on a countrywide Geodata Policy
- The Federal Office of Metrology and Surveying is the authority to coordinate SDI on a national level



MUGGENHUBER / MANSBERGER: Geodata-Infrastructure for Land Management in Austria



## What remains to be said . . . .

---

. . . Thank You for Your Attention

### Reinfried MANSBERGER

Institute of Surveying, Remote  
Sensing, and Land Information  
University of Natural Resources and Applied  
Life Sciences

Vienna - Austria

E-mail: [Reinfried.mansberger@boku.ac.at](mailto:Reinfried.mansberger@boku.ac.at)



### Gerhard MUGGENHUBER

Federal Office of Metrology and  
Surveying

Vienna - Austria

E-mail: [geomugg@gmx.at](mailto:geomugg@gmx.at)

