



More than 200 years of history

**Measuring the Baseline
Munich-Aufkirchen (21,65 km)
in 1801**



VUE GÉNÉRALE DE L'APPAREIL EMPLOYÉ POUR LA MESURE DE LA BASE DE LA GOLDACH.
1 Montagne du Wendelein l'un des sommets des grands Triangles

Messung der Altbayerischen Grundlinie München - Aufkirchen im Jahre 1801

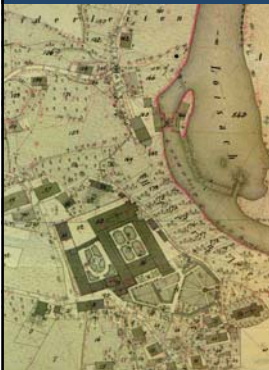


History of SOB

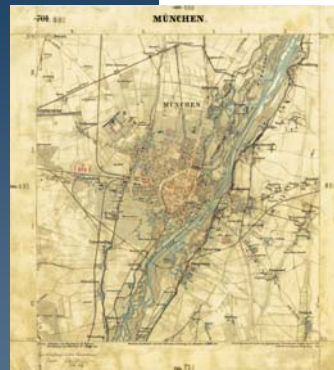
Cadastral Map
1 : 5 000 / 1 : 2 500

Cadastral Book

Topographical Map
1 : 25 000



1		2		3		4		5		6	
№	Abmessung	Fläche	Abmessung	Fläche	Abmessung	Fläche	Abmessung	Fläche	Abmessung	Fläche	
1	2	3	4	5	6	7	8	9	10	11	
1	100	100	100	100	100	100	100	100	100	100	
2	100	100	100	100	100	100	100	100	100	100	
3	100	100	100	100	100	100	100	100	100	100	
4	100	100	100	100	100	100	100	100	100	100	
5	100	100	100	100	100	100	100	100	100	100	
6	100	100	100	100	100	100	100	100	100	100	
7	100	100	100	100	100	100	100	100	100	100	
8	100	100	100	100	100	100	100	100	100	100	
9	100	100	100	100	100	100	100	100	100	100	
10	100	100	100	100	100	100	100	100	100	100	
11	100	100	100	100	100	100	100	100	100	100	
12	100	100	100	100	100	100	100	100	100	100	
13	100	100	100	100	100	100	100	100	100	100	
14	100	100	100	100	100	100	100	100	100	100	
15	100	100	100	100	100	100	100	100	100	100	
16	100	100	100	100	100	100	100	100	100	100	
17	100	100	100	100	100	100	100	100	100	100	
18	100	100	100	100	100	100	100	100	100	100	
19	100	100	100	100	100	100	100	100	100	100	
20	100	100	100	100	100	100	100	100	100	100	



Framework based on identic geodetic system



Organisation

Staff
approx. 15

Bavarian Ministry
of Finance

approx. 550

Bavarian Office for Surveying
and Geographic Information

- Cadastre
- Satellite Positioning System (SAPOS®)
- Aerial Imagery
- Digital Terrain Model (DGM)
- Topographic Cartographic Information System (ATKIS®)
- Topographic Maps
- PR and Marketing

approx. 2800

51 Cadastral Offices

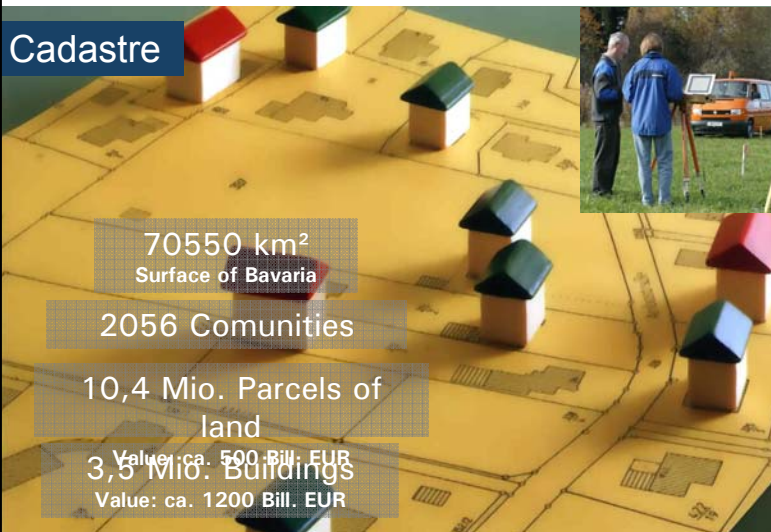
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Cadastre



70550 km²
Surface of Bavaria

2056 Communities

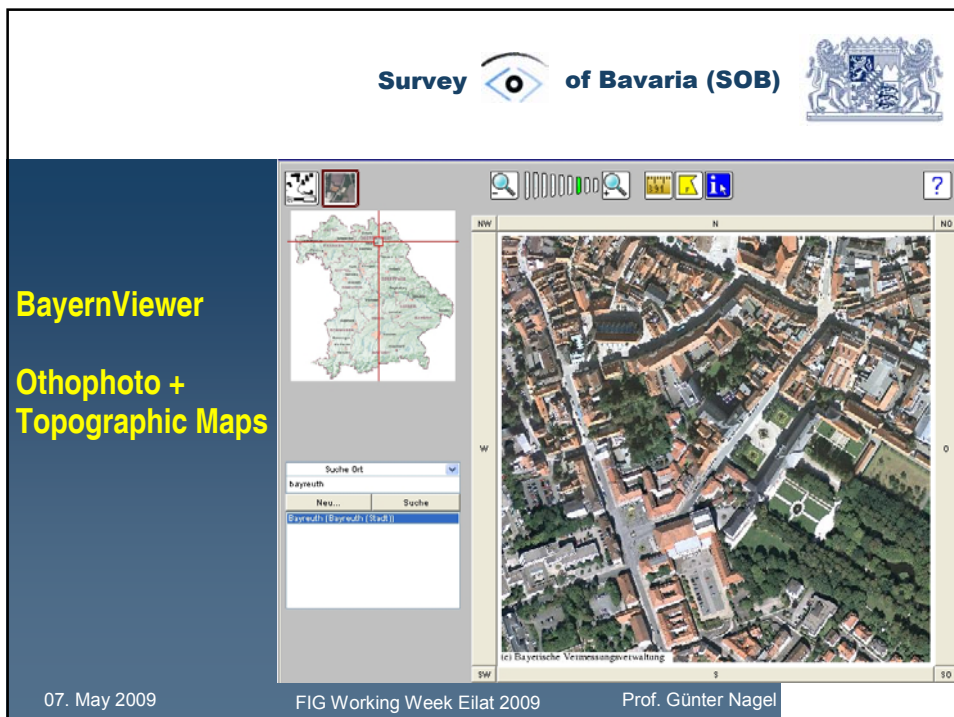
10,4 Mio. Parcels of
land

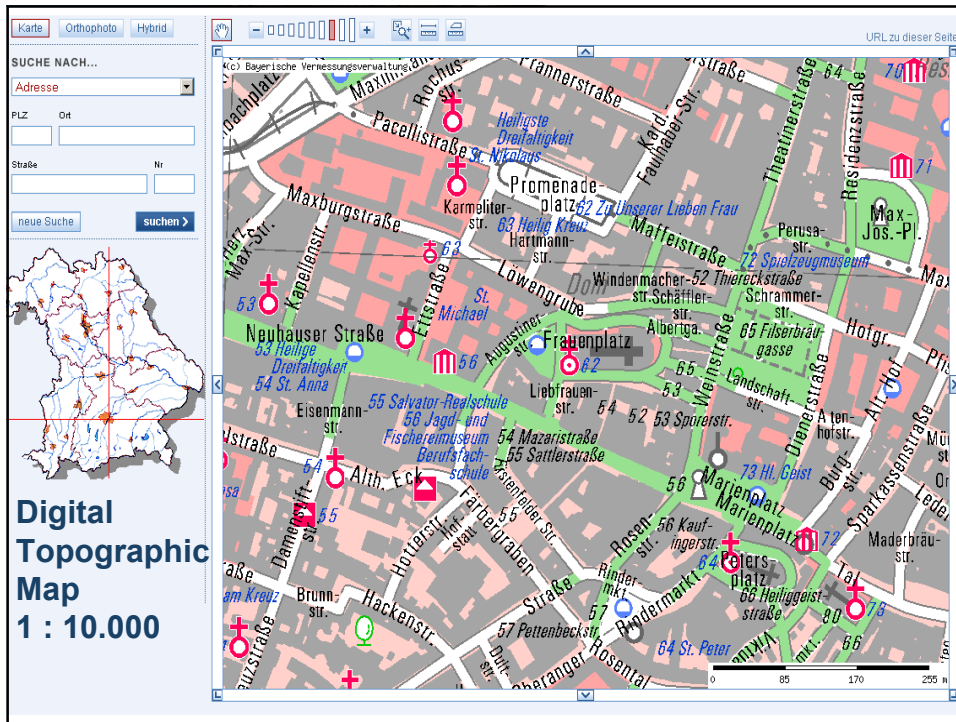
Value: ca. 500 Bill. EUR
3,5 Mio. Buildings
Value: ca. 1200 Bill. EUR

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Survey of Bavaria (SOB)

BAYERNVIEWER-DENKMAL

Suche Adresse:

Neu Suche

97070	Würzburg/Würzburg	(Würzburg)
97072	Würzburg/Würzburg	(Würzburg)
97074	Würzburg/Würzburg	(Würzburg)
97076	Würzburg/Würzburg	(Würzburg)
97078	Würzburg/Würzburg	(Würzburg)
97080	Würzburg/Würzburg	(Würzburg)
97082	Würzburg/Würzburg	(Würzburg)
97084	Würzburg/Würzburg	(Würzburg)

100 JAHRE
BAYERISCHES LANDESAMT
FÜR DENKMALPFLEGE

1908 - 2008

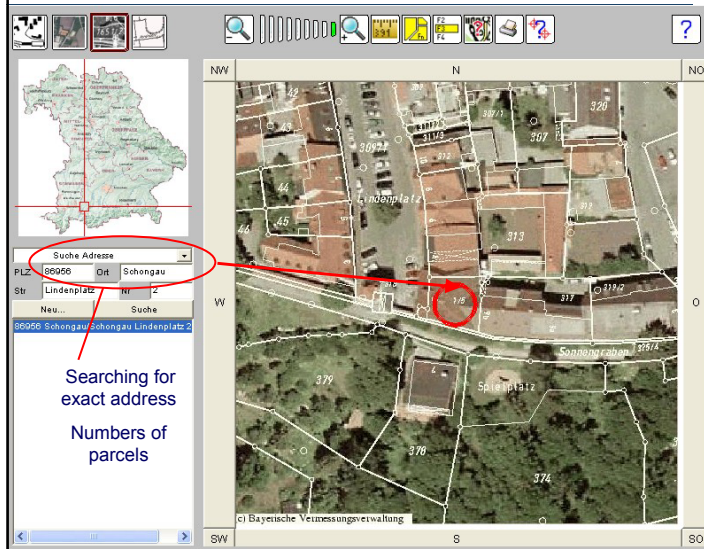
Geoinformation

Reg. Bez., Lkr.	Unterfranken, Würzburg (Stadt)
Gde., Gmkg.	Würzburg, Würzburg

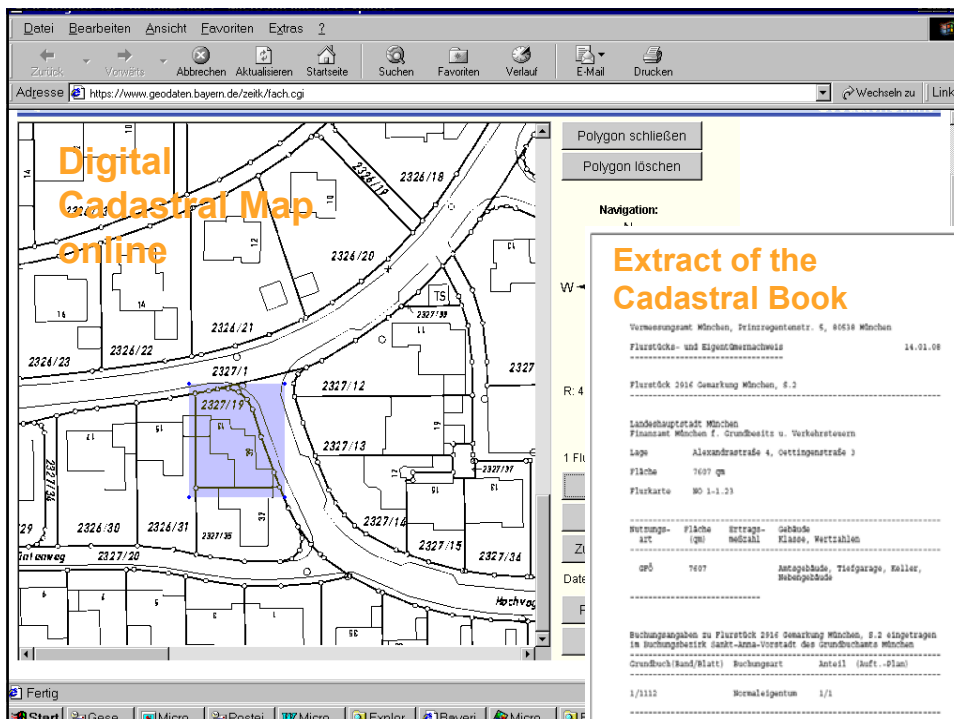
Baudenkmal

Bezeichnung	Domkirche
Traditionelle Bezeichnung	St. Kilian
Funktion	katholische Kirche Basilika
Adresse	Domstraße 42, Kiliansplatz 4

Internet Service BayernViewer-plus Orthophoto plus Cadastral Maps

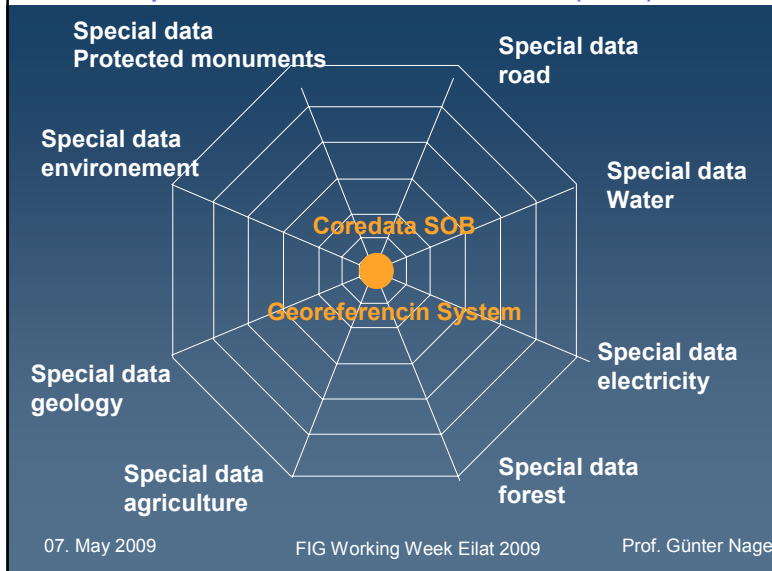


Ground
 Resolution of
 Orthophotos
 0.2 Meters

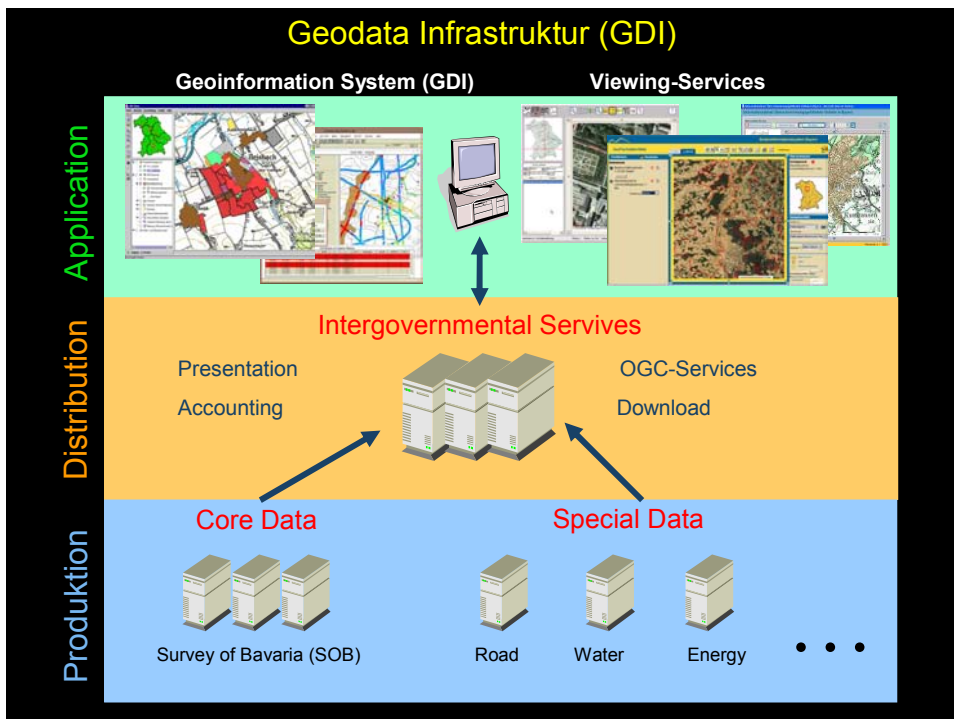




Spatial Data Infrastructure (SDI)



Geodata Infrastruktur (GDI)





SAteLLite POSitioning Service SAPOS® of the German State Mapping Agencies



Referenzstationen



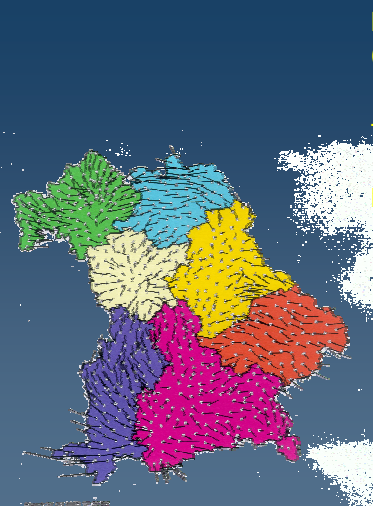
Permanent Station
Munich



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Transformation into local systems

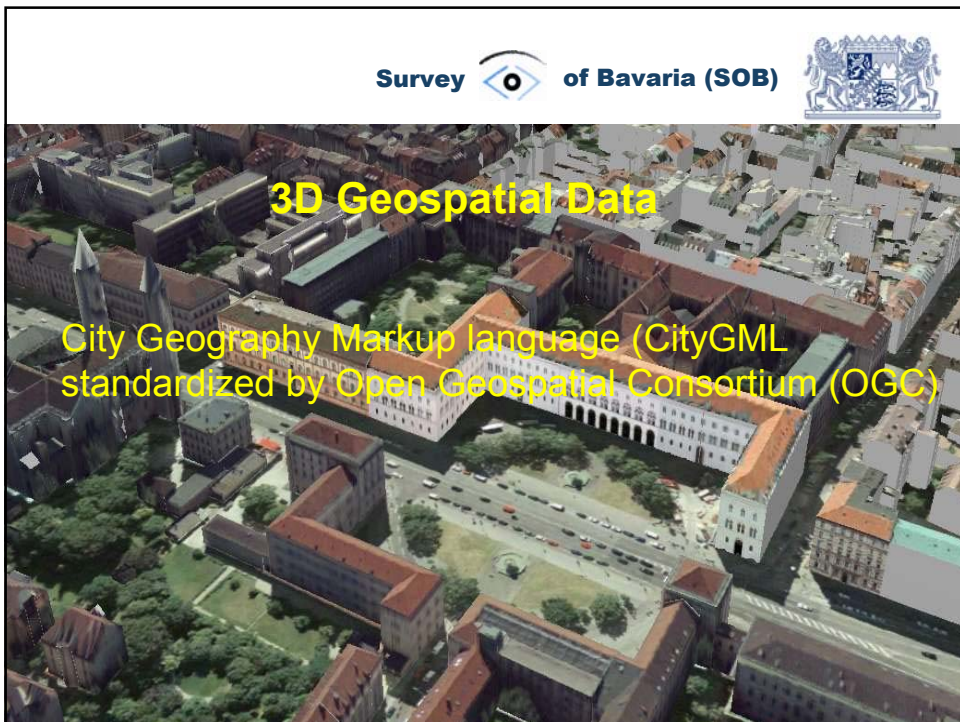
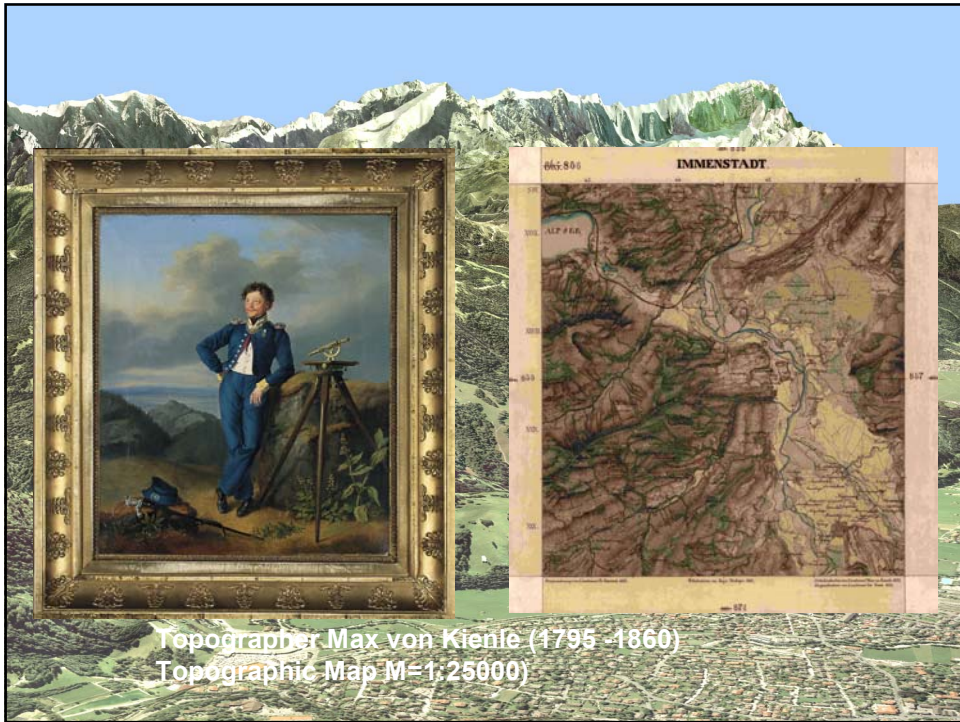


Bavarian transformation model
(ca. 10.000 identic points)
accuracy 5 ... 7 cm

Transformation from ellipsoidal
heights to official „normal
heights“
accuracy 3 ... 5 cm

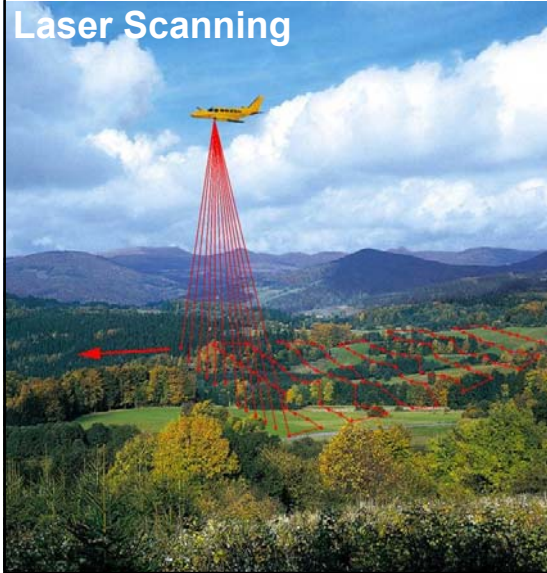
Both models are designed to be
implemented in rover firmware

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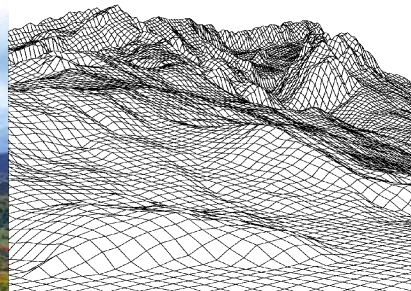




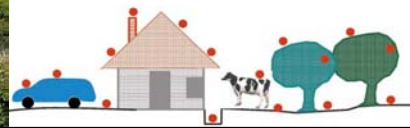
Laser Scanning



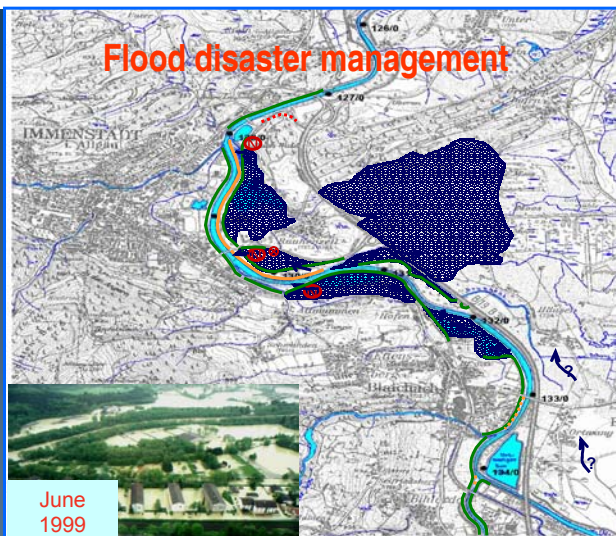
Digital Terrain Model (DTM)



Digital Elevation Model (DEM)



Flood disaster management



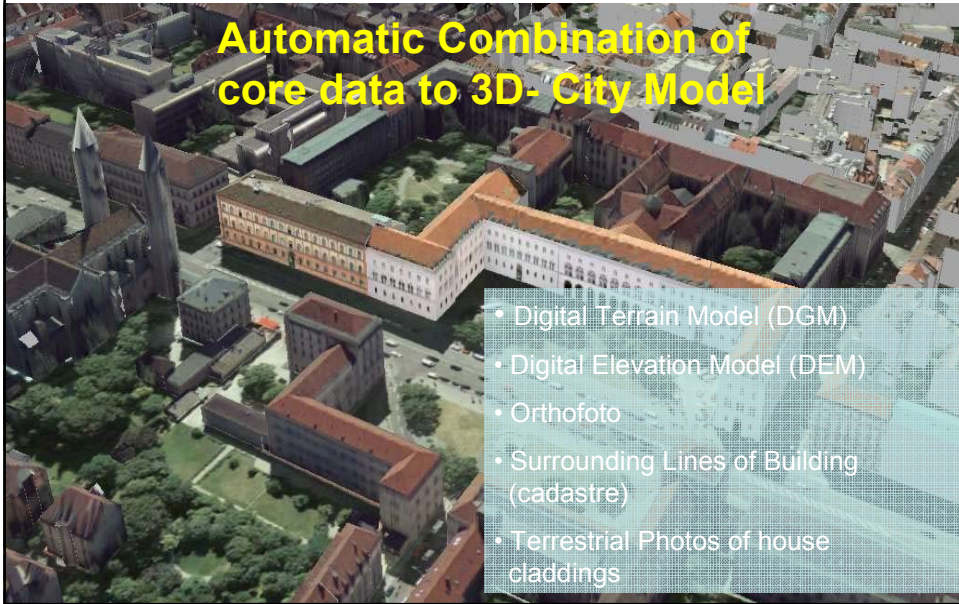
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Automatic Combination of core data to 3D- City Model



- Digital Terrain Model (DGM)
- Digital Elevation Model (DEM)
- Orthofoto
- Surrounding Lines of Building (cadastre)
- Terrestrial Photos of house claddings



Blockmodel exported to Google Earth




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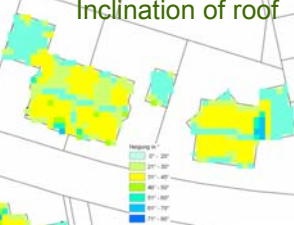
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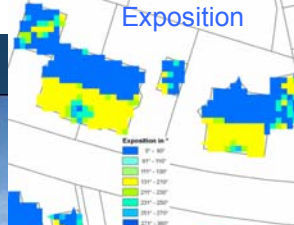
Survey of Bavaria (SOB)



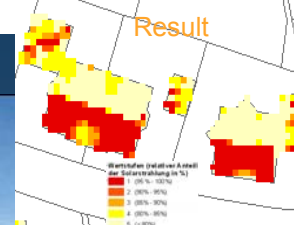
Inclination of roof




Exposition



Result






Detecting the Potential of Solar Energy

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Including the „data producer“



Flight Programme of Bavaria

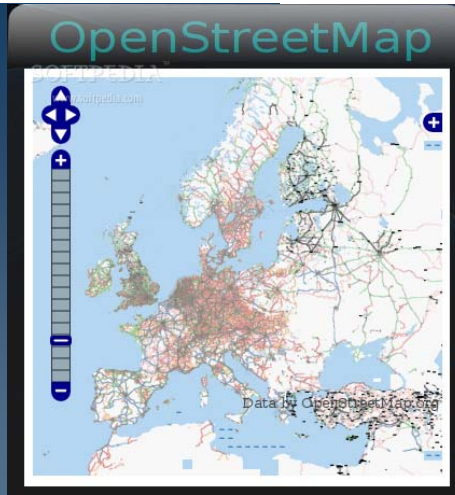
- Mb = 1 : 12.400
- Update 3 years cycle
- Colour photos
- 20 cm ground solution
- Infra red since 2009

Survey of Bavaria (SOB)

Street project

- Georeference!
- Standard!

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Thank you for your attention!



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