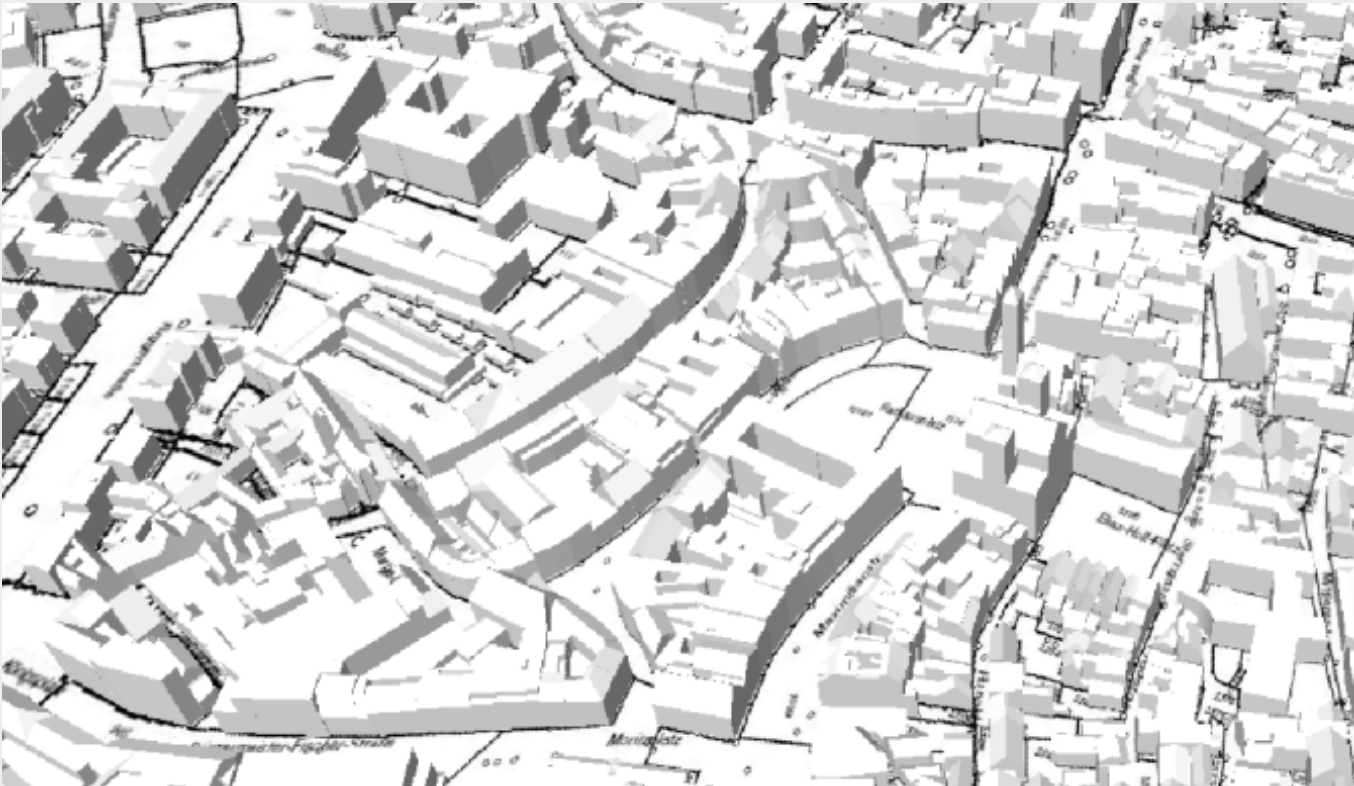




A Semantic INSPIRE-Conform Transformation of A Cadastre Conform 3D Building Model of Bavaria



3D Building Models in LoD2 with the cadastral map of Augsburg

Bavarian Agency for Digitisation, High-Speed Internet and Surveying



Arbeitsgemeinschaft der
Vermessungsverwaltungen
der Länder der Bundesre-
publik Deutschland (AdV)

The Working Committee of the Surveying Authorities of the Laender of the Federal Republic of Germany (AdV) is the German umbrella organisation of the authorities of the 16 Laender of the Federal Republic of Germany competent for land surveying and cadaster and of three federal authorities.

(source AdV Homepage)

GeoBasis-DE

Hauskoordinaten und Hausumringe des
deutschen Liegenschaftskatasters

Bezirksregierung Köln

Central Office for House Coordinates, Building Polygons and 3D Building Models” (ZSHH) – the nationwide sales agency for Building Models.

=> Standards:

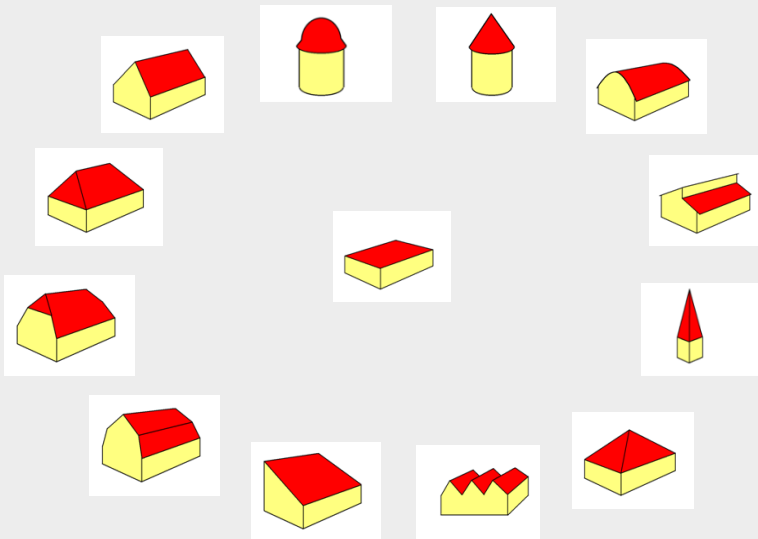
- CityGML 1.0.0 (AdV, 2015a)
- GeoInfoDok 7.0

Nationwide uniform
data structures and data
formats



Building Model – Level of Detail 2 (LoD2)

AdV – ALKIS GeoInfoDok 7.0
Roof prototypes



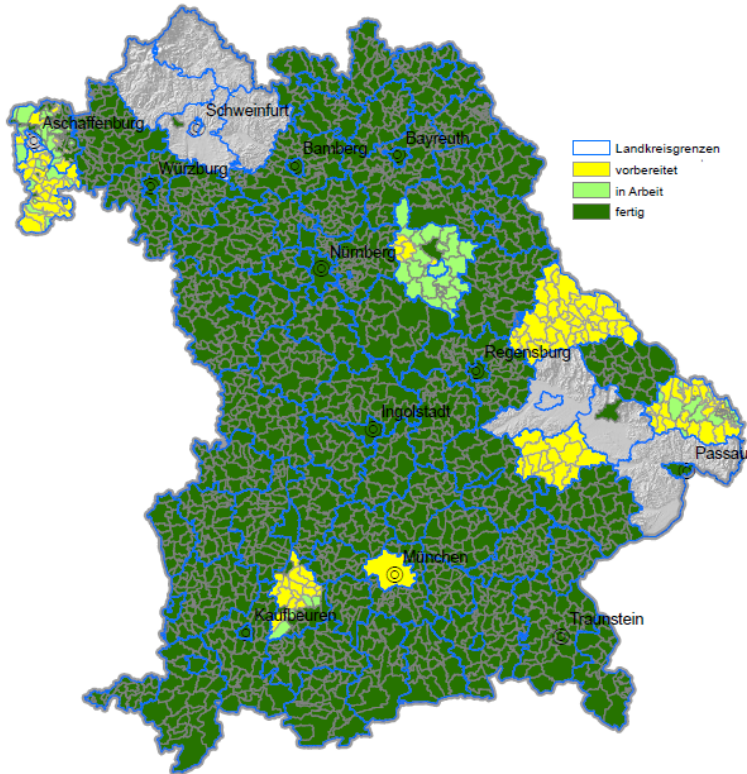
Name	Initial Value
Flachdach	1000
Pultdach	2100
Versetztes Pultdach	2200
Satteldach	3100
Waldach	3200
Krüppelwaldach	3300
Mansardendach	3400
Zeltdach	3500
Kegeldach	3600
Kuppeldach	3700
Sheddach	3800
Bogendach	3900
Turmdach	4000
Mischform	5000
Sonstiges	9999

Acquisition of
LoD2 by semi-
automatic extrac-
tion from LiDAR
point cloud



LoD2 Arbeits- u. Planungsstand

1:1.800.000



Regierungsbezirke vollständig bearbeitet: 3
Landkreise vollständig bearbeitet: 77
Fertig bearbeitete Gemeinden: 1849
Fertig bearbeitete Gebäude: 7242408

~7.3 million Building Models
(of ~8.5 million) finished
(green areas).

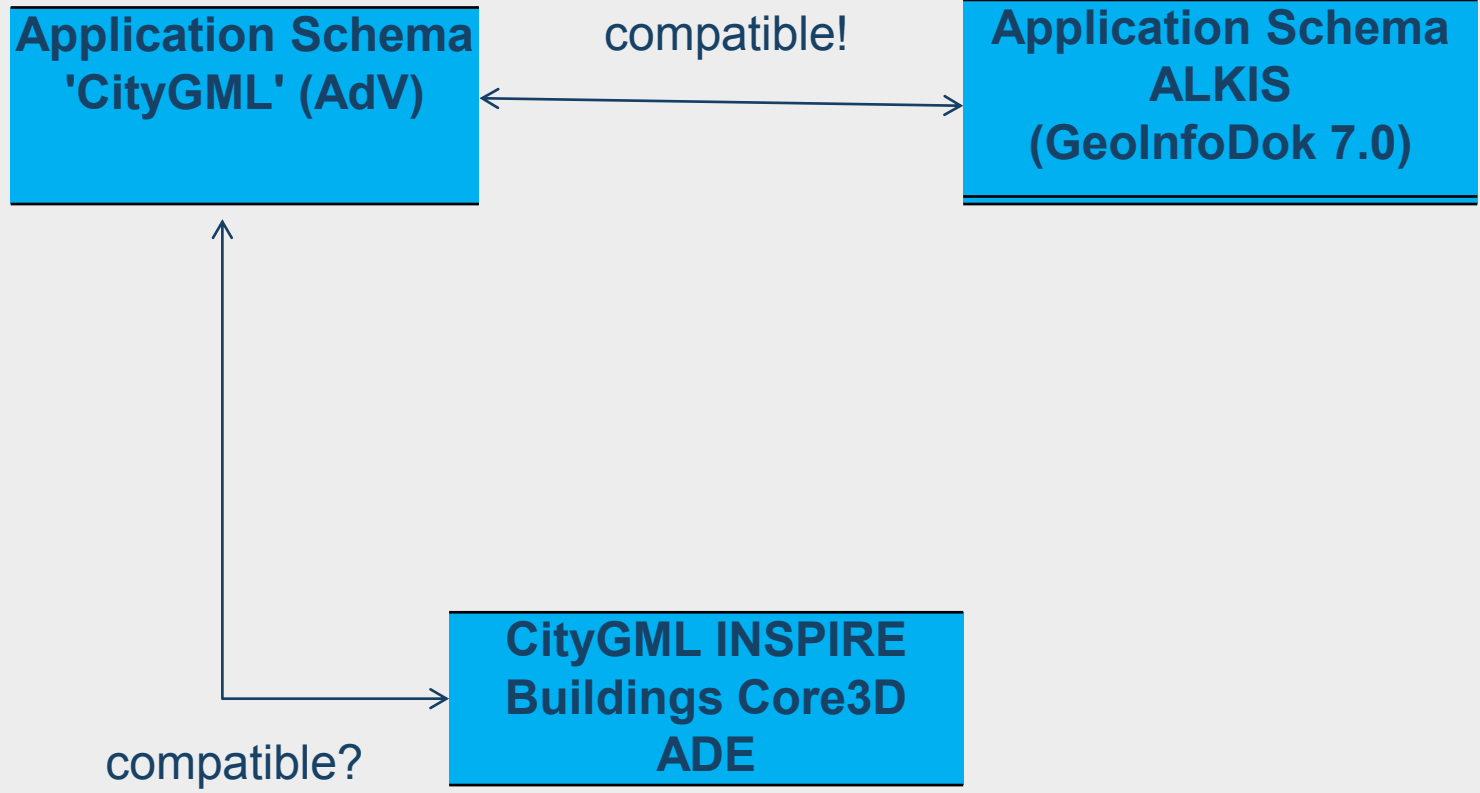
Storage of CityGML
compliant data with open
source database profile
3DCityDB.

Export as well to

- KML
- COLLADA

By FME-Workbench also to

- .skp
- 3D-Shape
- .dxf
- .3ds



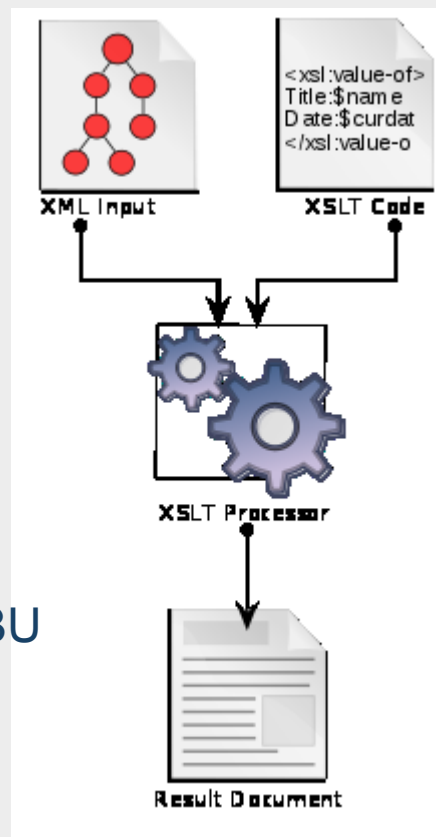


Standard XML-Tools

Code	BuildingFunctionAdV	INSPIRE BU			
		current Use	buildingNature		
31001_1000	Wohngebäude	Wohngebäude	residential		
31001_1010	Wohnhaus	Wohngebäude	residential		
31001_1020	Wohnheim	Wohnheim	residence for communities		
31001_1021	Kinderheim	Wohnheim	residence for communities		
31001_3038	Burg, Festung	Dienstleistungen	public services	Schloss	castle
31001_3040	Gebäude für religiöse Zwecke	öffentliche			
		Dienstleistungen	public services		
31001_3041	Kirche	Dienstleistungen	public services	Kirche	church
31001_3042	Synagoge	öffentliche			
		Dienstleistungen	public services	Synagoge	synagogue
31001_3043	Kapelle	öffentliche			
		Dienstleistungen	public services	Kapelle	chapel

Mappingtable AdV standard -> INSPIRE BU

- 1:1 mapping
 - case selections
- => XSLT code



source: wikipedia



Proof of concept successfully finished!

Test of INSPIRE data



Test report
for INSPIRE
data





Questions?

Thanks for your time!

