



Bavarian Ministry
of Finance



Actual issues related to e-cadastre

Dr. Markus Seifert
Bavarian Administration for Surveying and Cadastre

FIG Commission 7 Annual Meeting 2009, Kuala Lumpur
Country Report Germany



Hans Knoop has left us



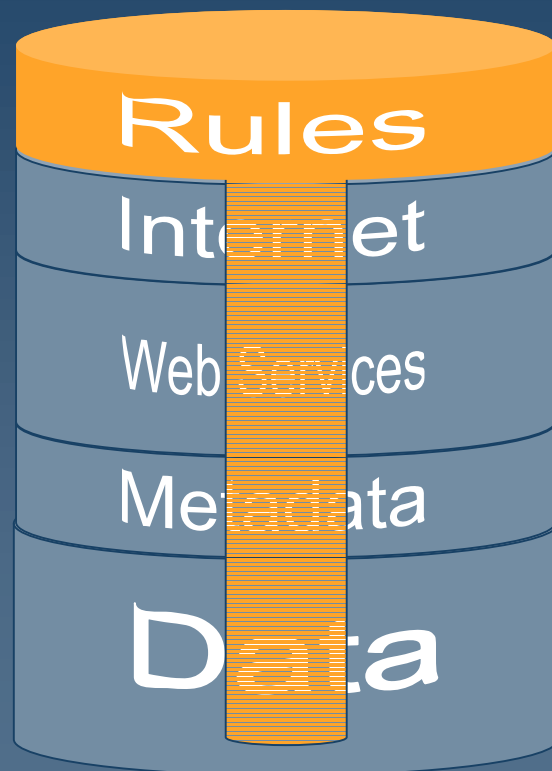
Prof. Dr. Hans Knoop



8.10.2009

Main task: Implementation of a SDI

Components of a SDI...



Legal regulations (e.g. INSPIRE),
GI standards (OGC, ISO)

Web Services for discovery, presentation and
download

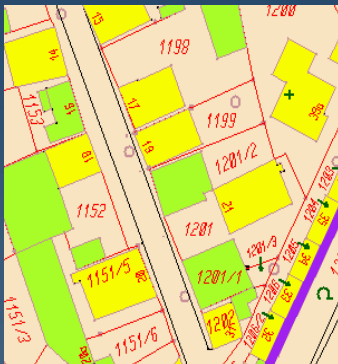
Formal information about the data in order to
Be able to find relevant data and to analyse
The feasibility for specific purposes

Digital GI data from the surveying and
mapping agencies (as reference) and other
thematic data

Main Task: Transposition of the new AAA data model into practice

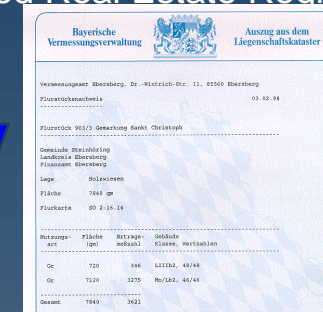
ALK

Automated Real Estate Map

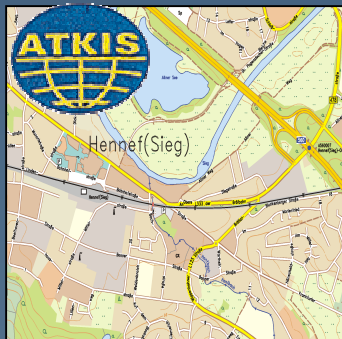


ALB

Automated Real Estate Register

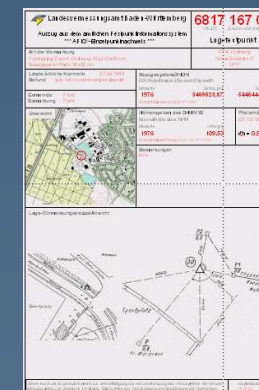


AFIS-ALKIS-ATKIS Application Schema



ATKIS

Official Topographic and Cartographic Information System

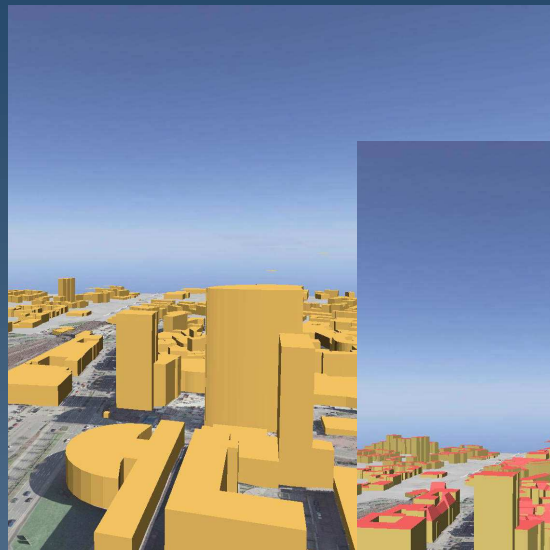


Geodetic Reference File

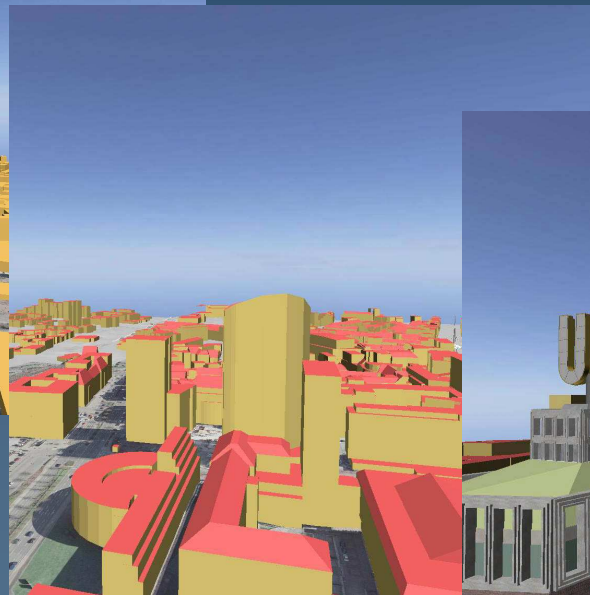


Data

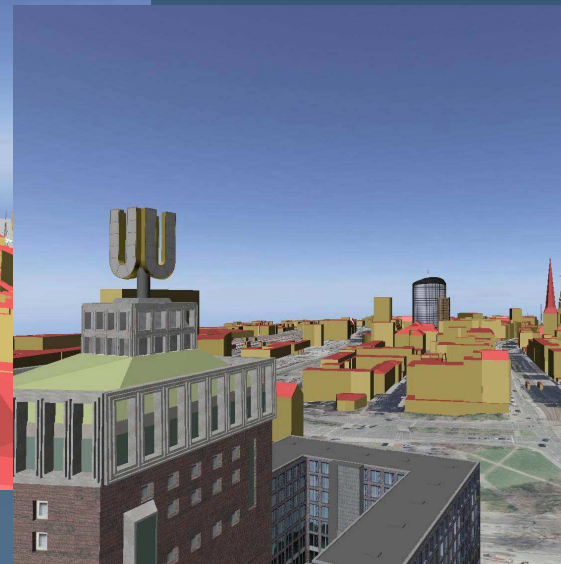
New content: 3D extension of the AAA Data Model



LoD 1



LoD 2



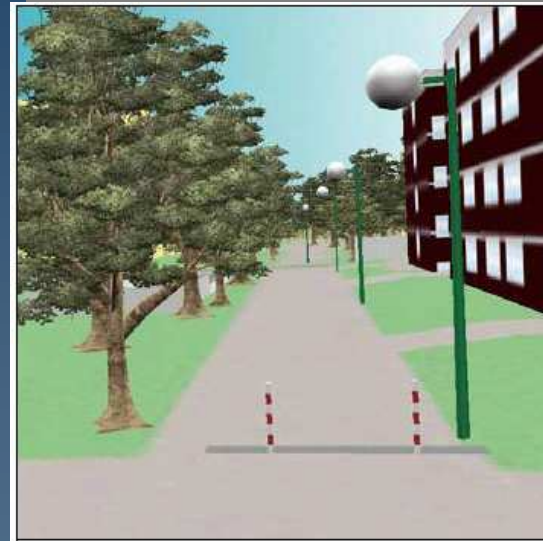
LoD 3



Planned Extension: Usage of geometry libraries



Real world



3D presentation using geometry libraries
(separator stake, lamps, trees)

Data

Functionality of standards in terms of data harmonization

Aim: Standardized documentation of the meaning (semantic) in different thematic domains



Standardised description of the meaning

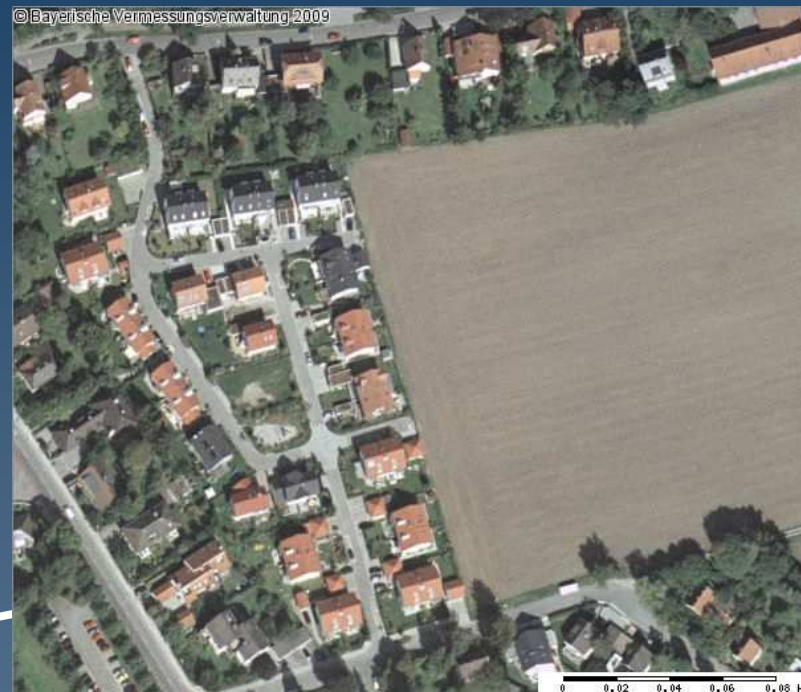
Not standardized description of the meaning



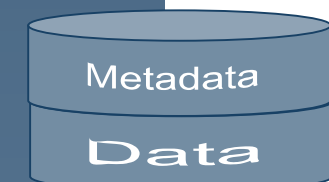
Data

How to analyse the feasibility (today)

e.g. information about actuality of spatial information

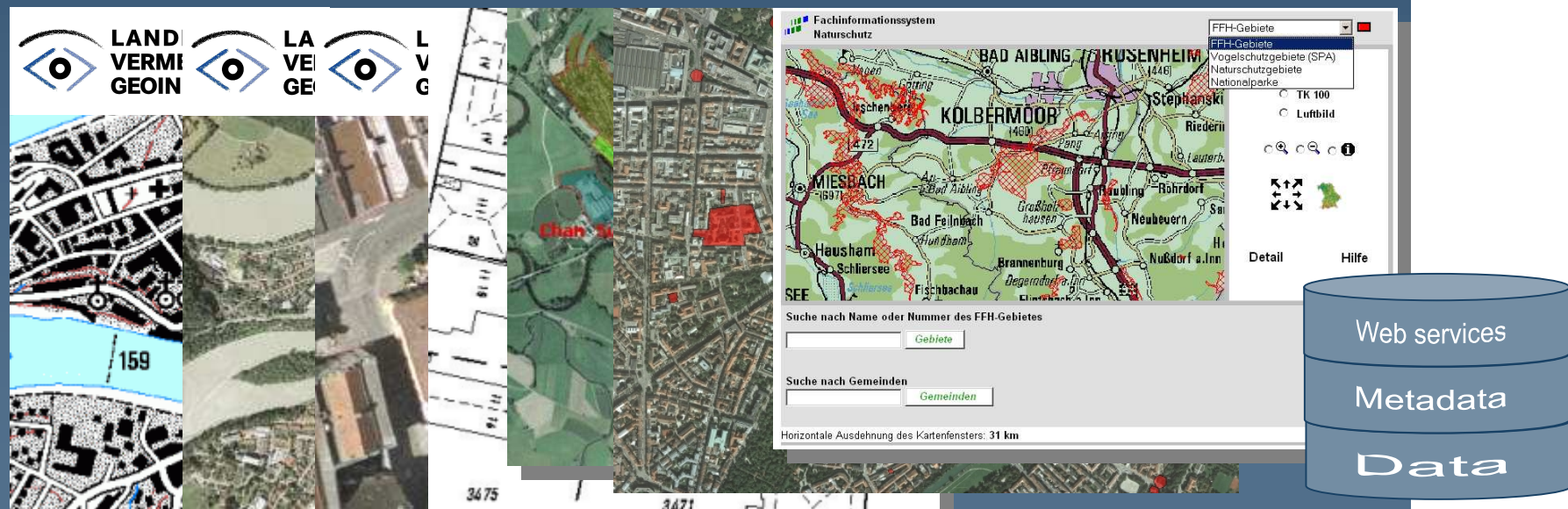


Currently (without any concrete dates) only relative statements in terms of actuality are possible („this is older than that one“), but no absolute information.



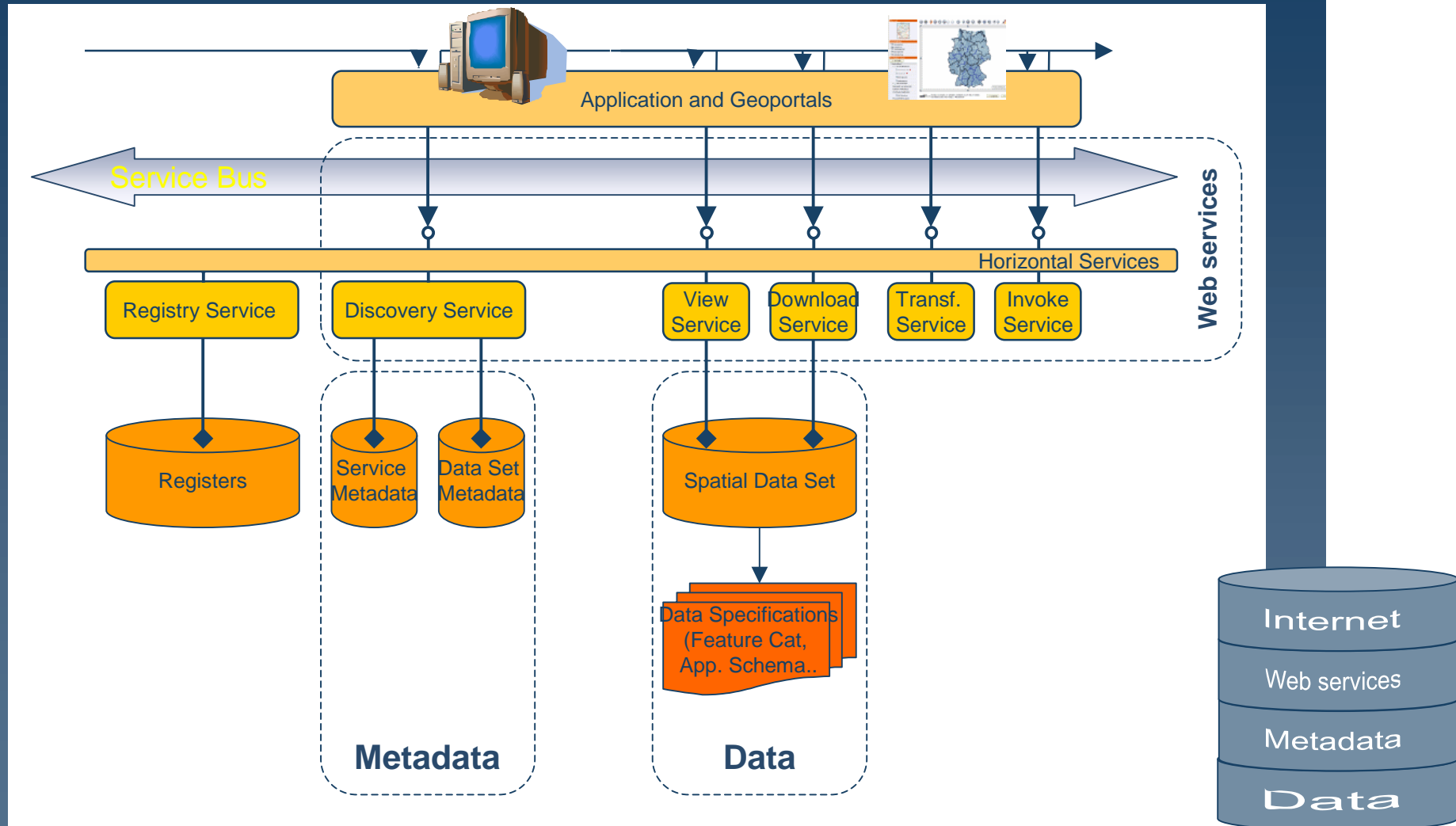
OGC Web Map Service (WMS)

- Request of digital maps in raster format (PNG, GIF, TIFF, JPEG) coming from separated digital geographic databases
- Displaying with a web viewer (web browser or GIS)
- Precondition: georeferencing, metadata, URL
- Functionalities: GetCapabilities, GetMap, GetFeatureInfo



The image illustrates the WMS workflow. On the left, three eye icons labeled 'LAND VERMIGEOIN', 'LA VERMIGEOIN', and 'L VERMIGEOIN' are shown above three different map layers: a cadastral map, an aerial photograph, and a vector map. On the right, a screenshot of a web GIS interface titled 'Fachinformationssystem Naturschutz' shows a map of the Kolberndorf area with various protected areas highlighted in red. A search bar and a legend are visible. Below the screenshot is a blue database cylinder icon with three levels labeled 'Web services', 'Metadata', and 'Data'.

INSPIRE Architecture



Data delivery: New Geoportal

Geodateninfrastruktur Bayern

[Startseite](#) | [Geodatendienste](#) | [Kontakt](#) | [Impressum](#) | [Textgröße](#) +

Geodatendienste durchsuchen

Startseite

- Aktuelles
- Geodatendienste
- Was ist GDI?
- GDI in Bayern
- GDI in Deutschland
- INSPIRE
- GDI Anwendungen
- Viewer
- GDI Links
- Dokumente

Willkommen bei der Geodateninfrastruktur Bayern

GDI-Bayern beim Tag der offenen Tür am Vermessungsamt Landshut

Aus Anlass des 175-jährigen Bestehens des Vermessungsamtes Landshut wird ein Tag der offenen Tür veranstaltet, beim dem auch die GDI-Bayern ihre aktuellen Projekte präsentiert

[Beitrag lesen](#)

GDI-Links

GDI-DE

[Link zur GDI-DE](#)

Links zu den GDI-Anwendungen

FIS -Natur [⇨ FIS-Natur](#)

IÜG [⇨ IÜG](#)

Kommunale 2009 von 14. - 15. Oktober in Nürnberg

Auf dieser Fachmesse für Kommunalbedarf präsentiert die Geodateninfrastruktur Bayern aktuelle Anwendungen und Projekte

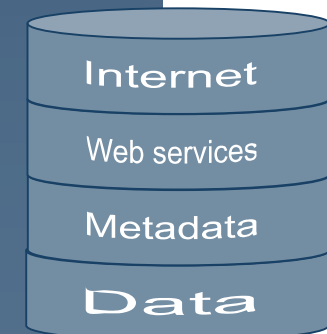
[Beitrag lesen](#)

GDI-Bayern auf der Niederbayern-Schau in Landshut

Zusammen mit dem Vermessungsamt Landshut stellt die GDI-Bayern vom 26. September bis zum 4. Oktober 2009 ihre neuesten Projekte und praktische Anwendungen vor (Halle 11, Stand 1133)

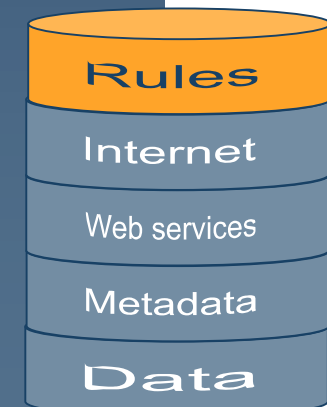
[Beitrag lesen](#)

VBORIS: Übersicht zu den abgeschlossenen Nutzungsvereinbarungen



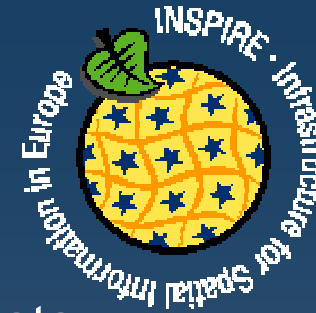
International Standards

- Advantages of standardized interfaces are definitely there and crucial for a sufficient data communication
- But: The rules and standards do not come from us (the surveyors), but
 - National thematic networks
 - International standardization at ISO and OGC in terms of data modelling, web services, data exchange interfaces etc.
 - INSPIRE directive and national laws

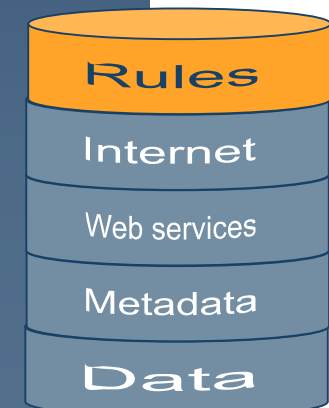


INSPIRE – SDI in Europe

Infrastructure for Spatial Information in Europe



- European initiative for implementation of a spatial data infrastructure
- Came 2007 May 25 in force
- Until 2009 transposition in national law
- Aim: Existent spatial data should be made available using existing GI standards and defining further rules
- INSPIRE also develops detailed technical implementing rules and technical guidelines
- Not just the „infrastructure“ (web service interfaces), but also concrete data content will be provided taking into account the user needs



Addressed data content to be harmonized in Europe

INSPIRE Annex I	Annex II	Annex III
<ul style="list-style-type: none"> • Coordinate reference systems • Geographical grid systems • Geographical names • Administrative units • Addresses • Cadastral parcels • Transport networks • Hydrography • Protected sites 	<ul style="list-style-type: none"> • Elevation • Land cover • Orthoimagery • Geology 	<ul style="list-style-type: none"> • Statistical units • Buildings • Soil • Land use • Human health and safety • Utility and governmental services • Environmental monitoring facilities • Production and industrial facilities • Agricultural and aquaculture facilities • demography Etc.

