

Implementation of SDI in Germany: GDI-DE Technical Architecture and Organisation Model

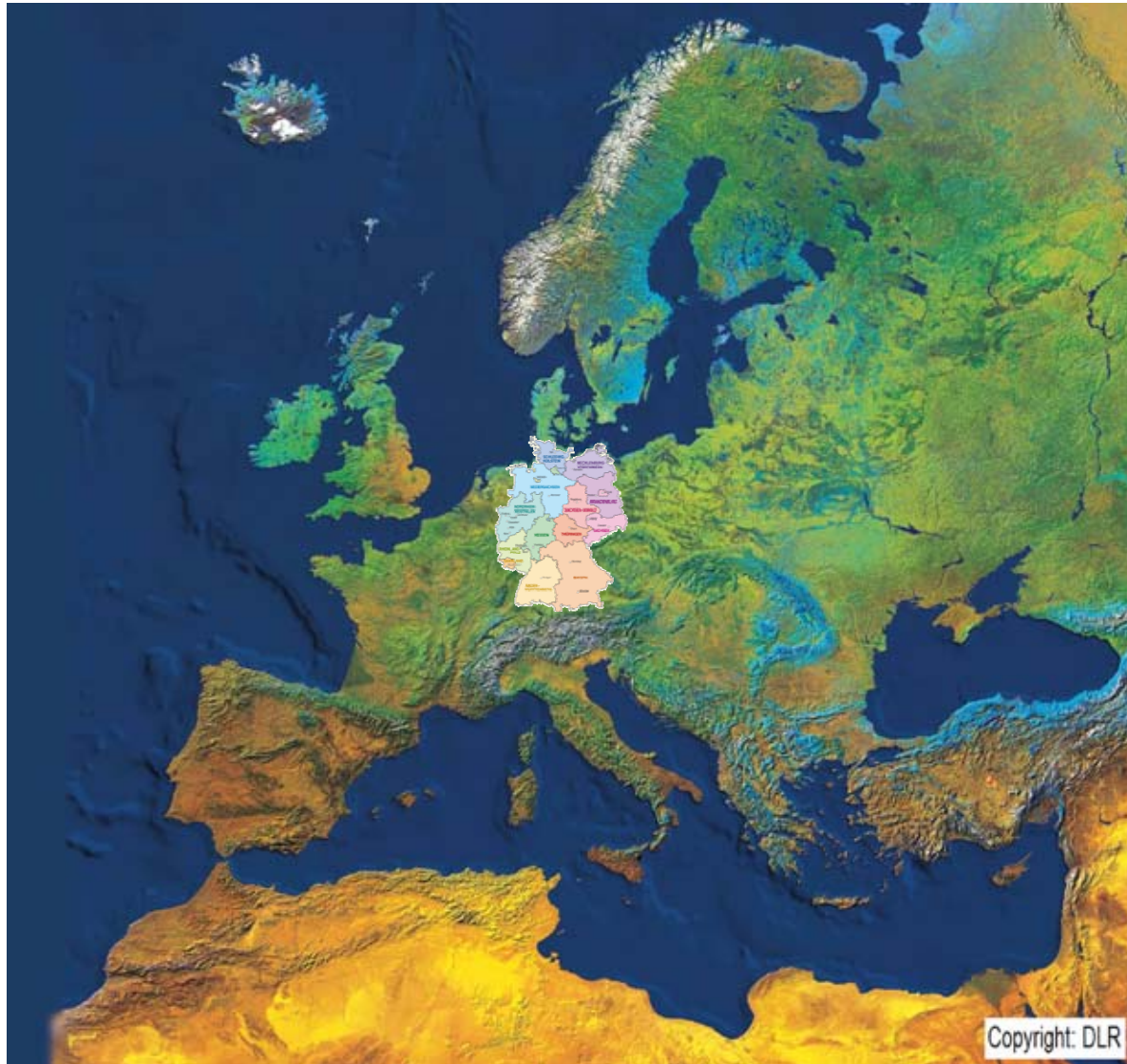
Martin Lenk, Andreas von Dömming, Ronald Mordhorst
*(Coordination Office SDI Germany,
Agency for Geo-Information and Surveying Hamburg)*

INSPIRE Conference 2008,
Maribor, 24. June 2008

- Organisation of SDI in Germany: GDI-DE
- Common Technical Guideline:
Architecture GDI-DE
- Implementation: GDI-DE Pilot Projects
in the context of INSPIRE

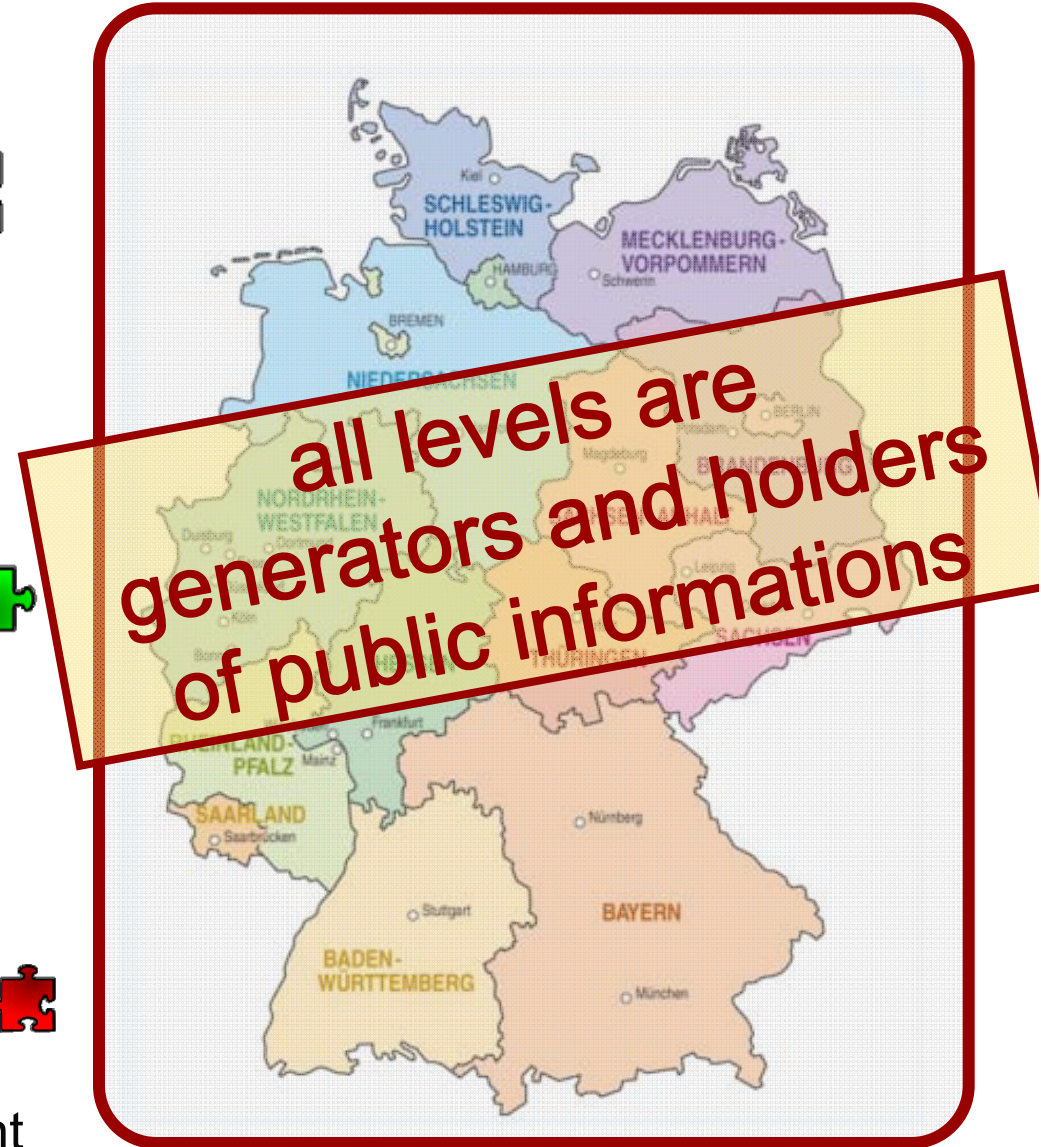


... focus to Germany's Spatial Data Infrastructure (GDI-DE)

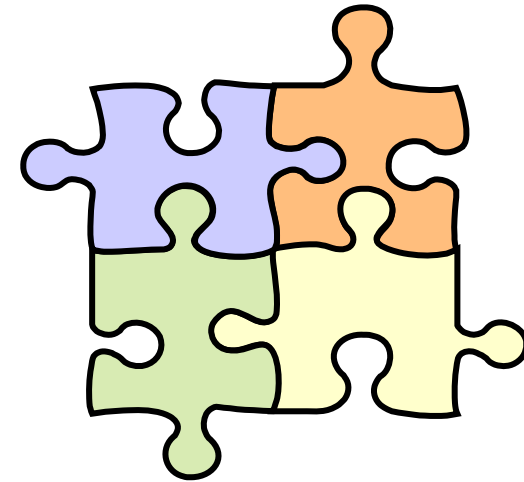
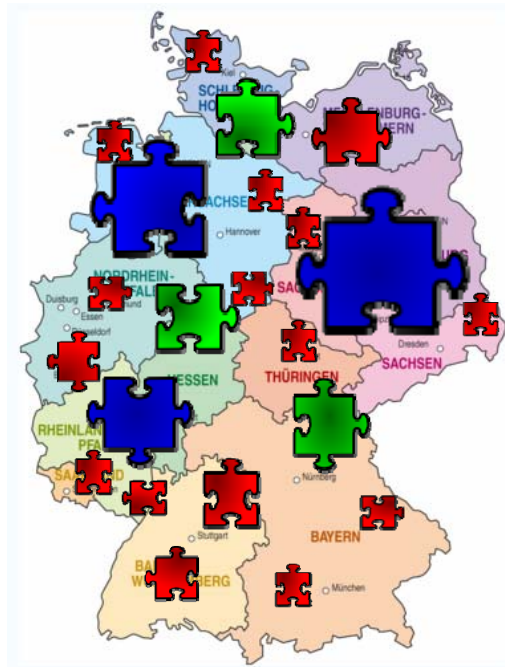


levels of public authority in Germany

- national level
the Nation (Federation)
with parliament,
administration,
judicial power
- regional level (16 States)
each with parliament,
administration,
judicial power
- local level (~14.000 Municipalities)
with many rights of self-government



Organisation of SDI Germany



Spatial data in Germany is

- geographically widely spread
- distributed across all levels of administration

Construction of National SDI in Germany (GDI-DE)

- is a public task
- is a cooperation project of all levels of administration

Political Level (E-Government)

National SDI is coordinated by a common steering committee

The Steering Committee comprises delegates of all levels of public authority:

- national: 2 Federal Ministries
- regional: 1 each State (16),
- local: 3 Associations of Municipalities

- strategic decisions
- conception

Steering Committee GDI-DE



*decisions,
work orders*



*proposals,
reporting*

Coordination Office GDI-DE

Network of partners in public administration and software companies



Working Groups in GDI-DE:

WG Architecture: The architecture working group **compiled and maintains the Technical Architecture GDI-DE.**

WG SDI Services: **Profiling** of a SDI-related specifications in the context of GDI-DE and recommendations of the usage of Standards.

WG Metadata: The coordination of **Germany's network of distributed catalog-services.**

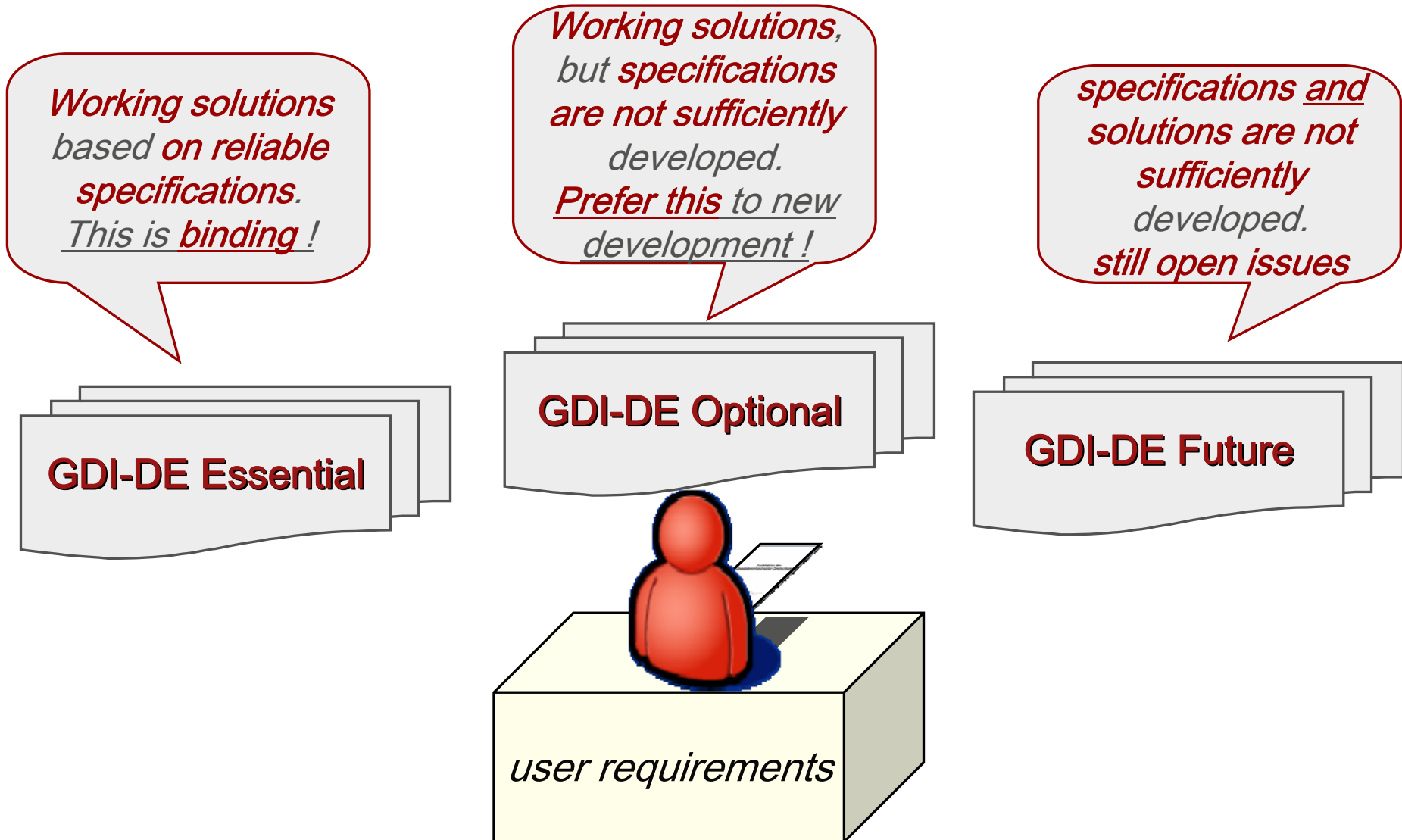


Table of Contents

- I. Mission, Goals and Organisation
- II. Standards
- III. Implementation Plan

- Baseline is a service oriented architecture (**SOA**) based on **ISO and OGC**.
- GDI-DE doesn't create any new standards. It recommends specific interpretations about the use of the standard
- Perspective for the intended further development (**implementation plan**) is given.
- GDI-DE **addresses also decision makers** to support **decisions over investments** without detailed knowledge about ISO or OGC
- Fulfill the requirements from the Infrastructure for Spatial Information in the European Community (**INSPIRE**)

... according to the level of maturity and obligation:

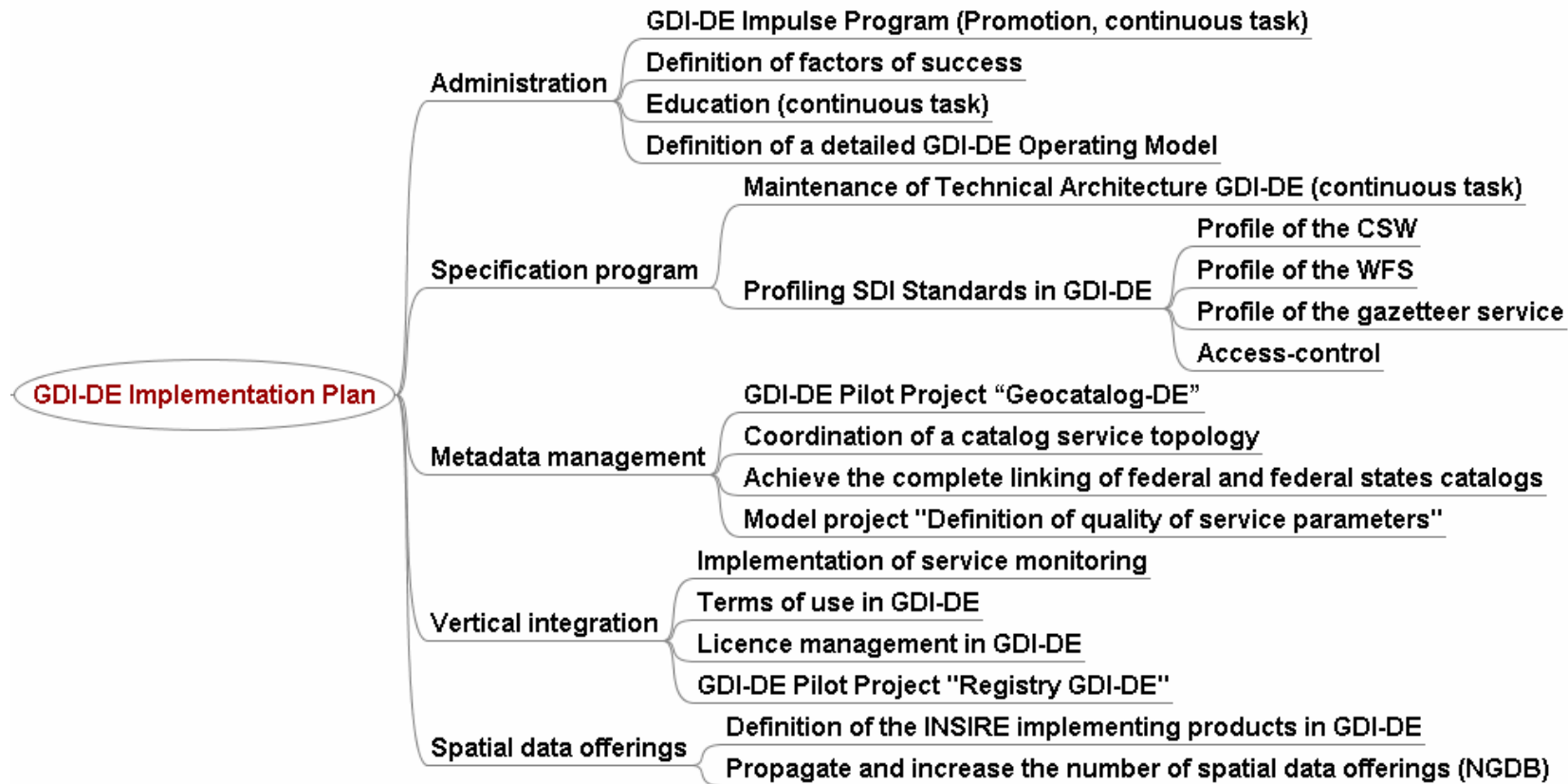


Grading of to be supported functionalities

Grading \ Function	Solutions and stable specifications exist. (GDI-DE Essential)	Solutions exist, but currently stable specifications are not available. (GDI-DE Optional)	No solution and no stable specifications currently available. (GDI-DE Future)
Data provision and management functions	<ul style="list-style-type: none"> • Metadata catalogues: Registration and Lookup of spatial data, geoservices and applications • Provision of vector data • Provision of raster data • Gazetteer 		<ul style="list-style-type: none"> • Registers • Thesauri • Sensor data
Visualization	<ul style="list-style-type: none"> • 2-D Visualisation 	<ul style="list-style-type: none"> • 3-D Visualisation 	
General functions		<ul style="list-style-type: none"> • Service monitoring • Access control 	<ul style="list-style-type: none"> • Ordering functions • License management
Applications		<ul style="list-style-type: none"> • Geoportals 	
Information models	<ul style="list-style-type: none"> • National spatial data base (NGDB) • Defined CRSs • Description of spatial resources • Defined data formats • (Vector, Raster) 		<ul style="list-style-type: none"> • Common license model



GDI-DE Implementation Plan





Pilot Projects “Do it right once and distribute the solution” !

Protected Areas: Production of a joint map of protected areas over Germany by **orchestration of distributed map services**.

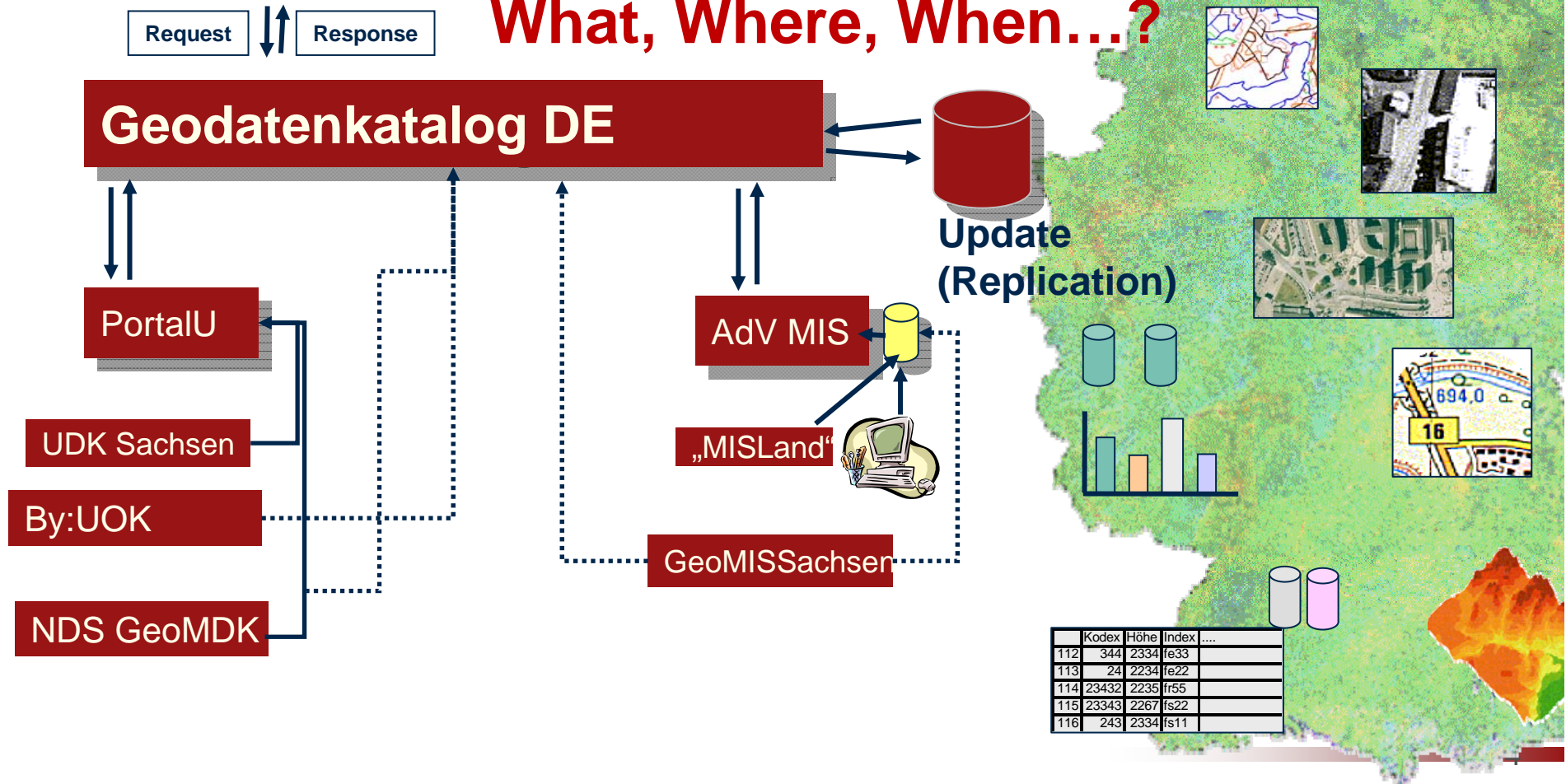
Geocatalog DE: Improve the **linkage of distributed catalog services** and **enable quick access to any spatial metadata** in Germany from a single entry point.

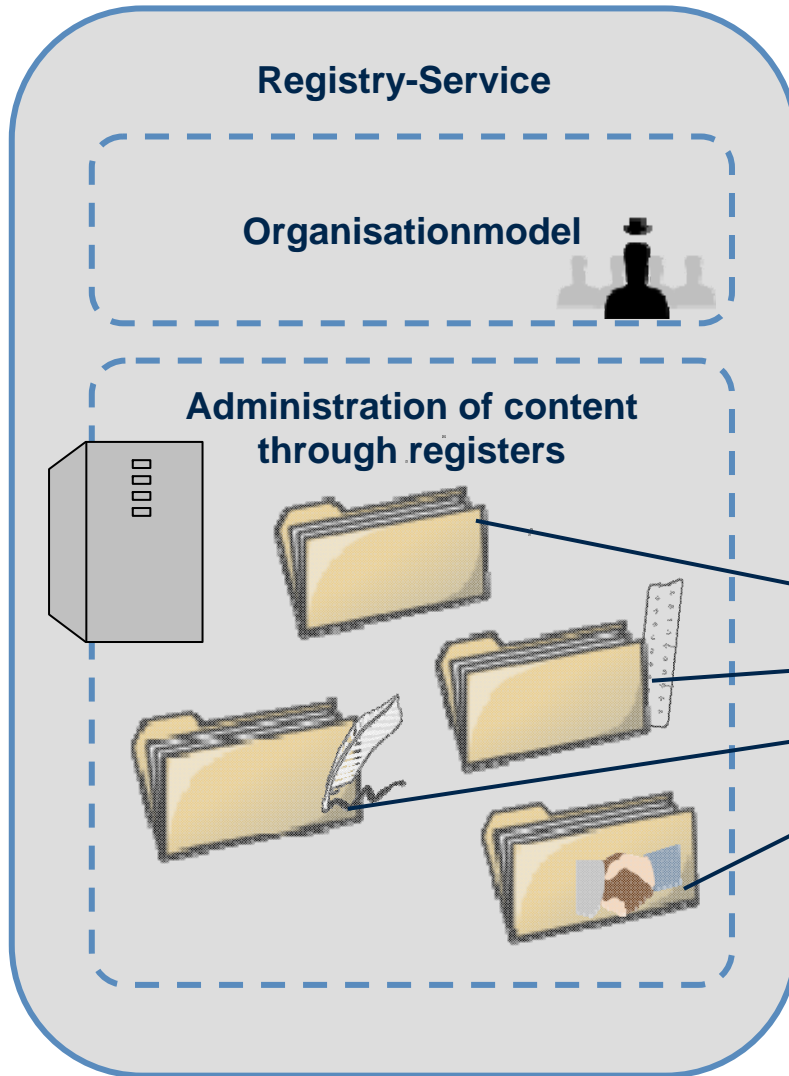
Registry GDI-DE: Setup a **registry service** to manage information of common usage (e.g. parameters of coordinate systems, units of measure).

Datasearch: Coordinated Network

Users: e.g. INSPIRE, GEOSS,...

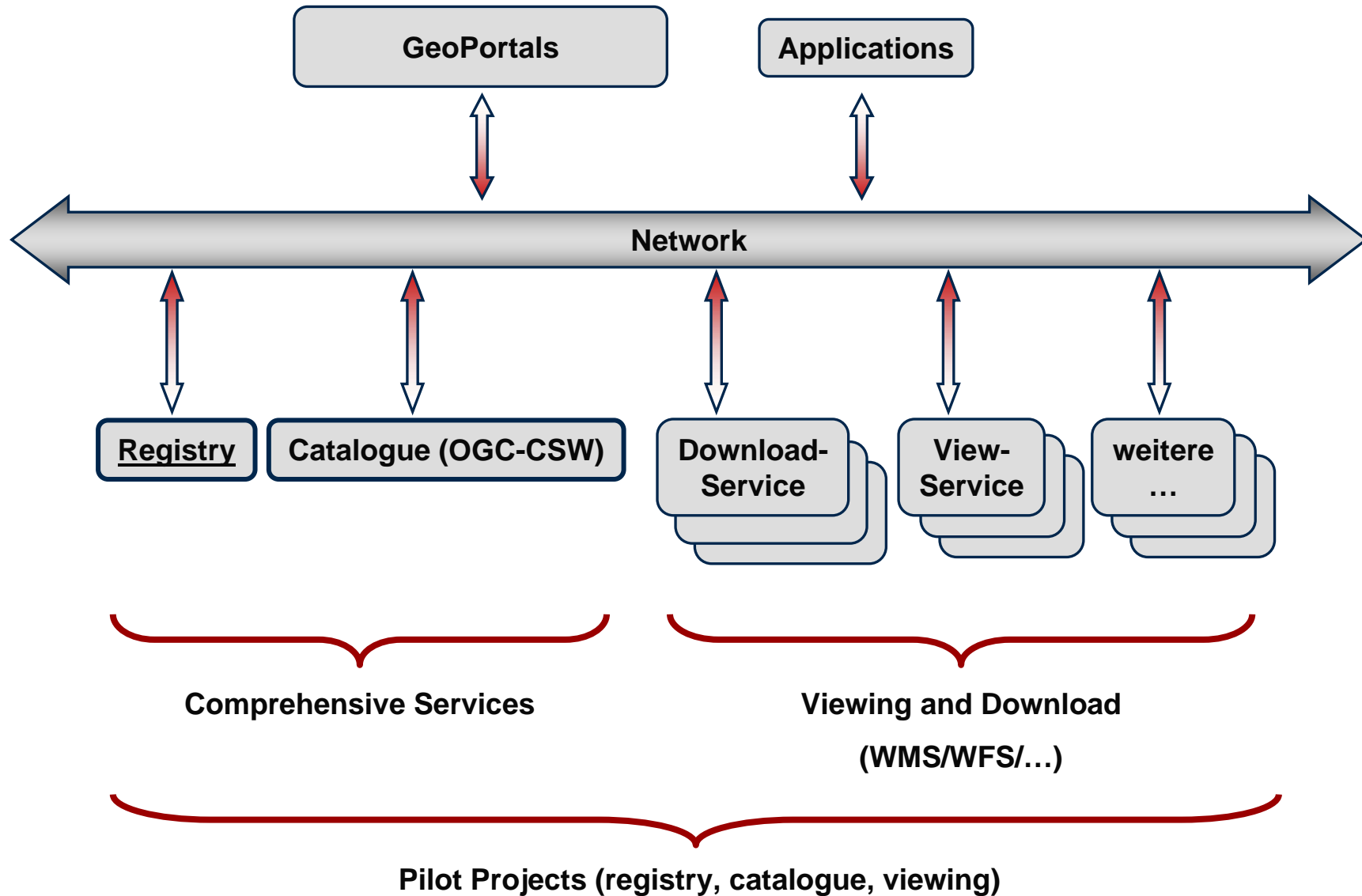
What, Where, When...?

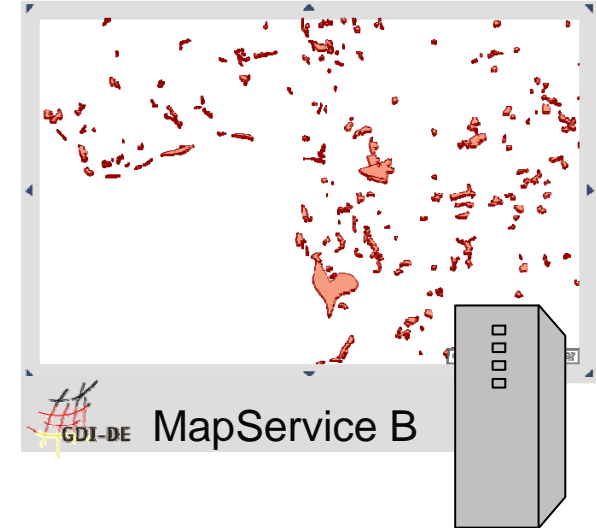
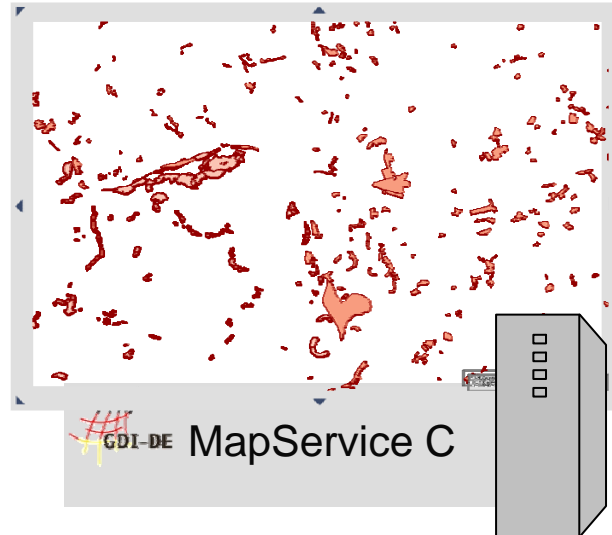
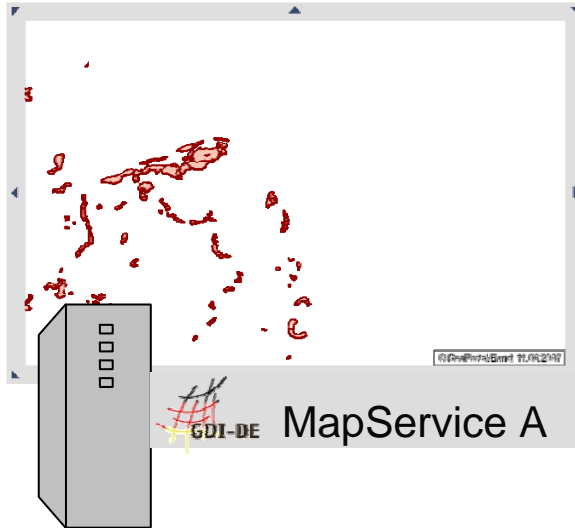




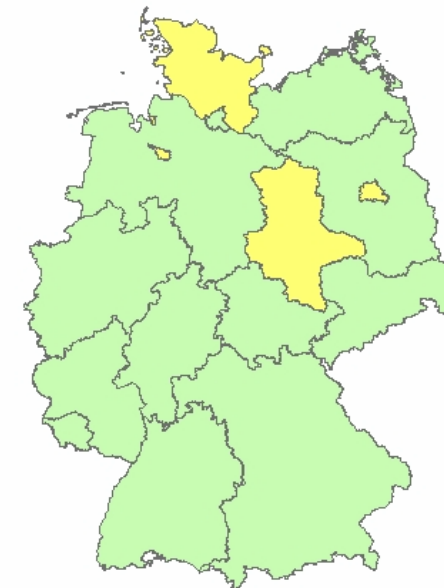
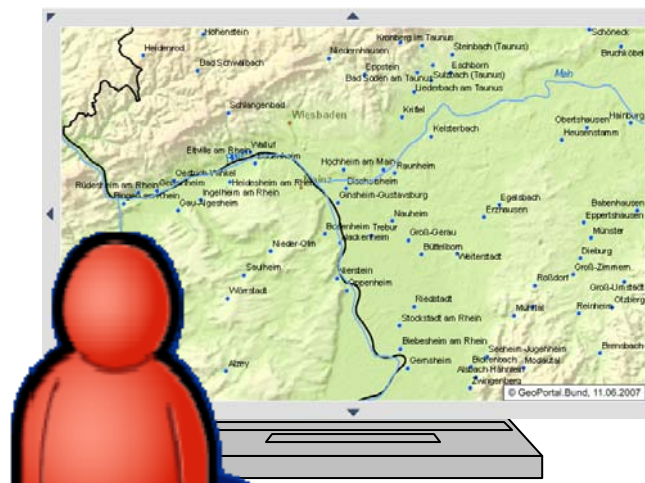
Examples: registries for...

- ...coordinate transformation
- ...Measure of Units
- ...Information for Visualization (e.g. SLD)
- ...standardized User Agreements
-





orchestration of distributed map services to produce a joined map based on distributed data



Thank you for your attention
and to the other contributors !

Martin Lenk
(martin.lenk@bkg.bund.de)

www.gdi-de.org

www.geoportal.bund.de