

One SDI in Europe: INSPIRE in Germany

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FIG Commission 3 Workshop

2. February 2009

Mainz, Germany

- **Towards one SDI in Europe: INSPIRE Directive**
- **Situation in Germany**
- **INSPIRE Preparation and Implementation in Germany**
 - **SDI-Structure: GDI-DE**
 - **Legal Implementation**
 - **Technical Implementation**

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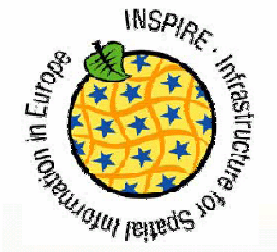
INSPIRE - INfrastructure for SPatial InfoRmation in Europe

25.4.2007

EN

Official Journal of the European Union

L 108/1



I

(Acts adopted under the EC Treaty/Euratom Treaty whose publication is obligatory)



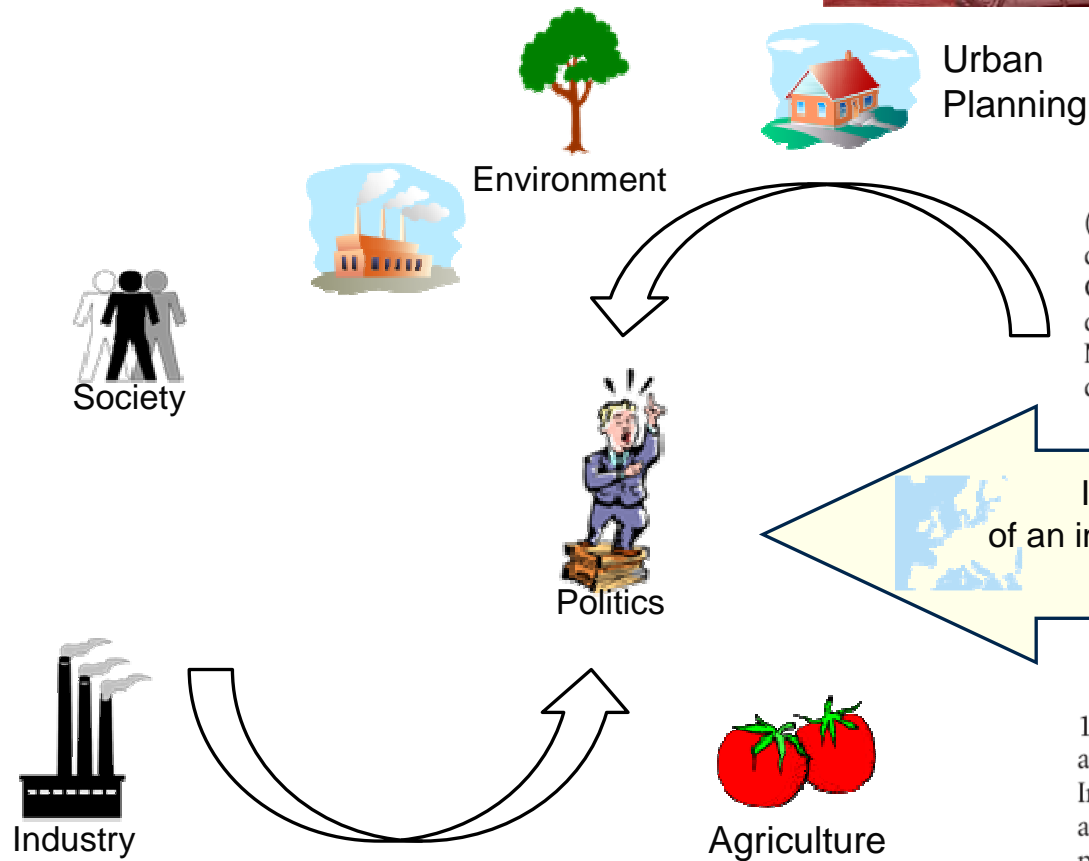
DIRECTIVES



DIRECTIVE 2007/2/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 14 March 2007

establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)



(1) Ziel dieser Richtlinie ist es, allgemeine Bestimmungen für die Schaffung der Geodateninfrastruktur in der Europäischen Gemeinschaft (nachstehend „INSPIRE“ abgekürzt) für die Zwecke der gemeinschaftlichen Umweltpolitik sowie anderer politischer Maßnahmen oder sonstiger Tätigkeiten, die Auswirkungen auf die Umwelt haben können, zu erlassen.

Infrastructure for the purpose of an integrated environment policy

1. The purpose of this Directive is to lay down general rules aimed at the establishment of the Infrastructure for Spatial Information in the European Community (hereinafter referred to as Inspire), for the purposes of Community environmental policies and policies or activities which may have an impact on the environment.



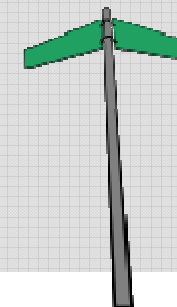
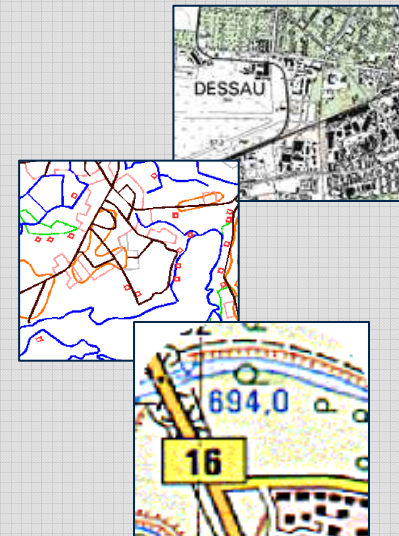
INSPIRE Regulations

- **Chapter II – Metadata:** descriptions of spatial datasets about INSPIRE conformity, licenses and prices, quality, validity
- **Chapter III – Interoperability:** common rules with implementing rules like unique identifier, relations, key attributes, temporal dimensions etc.
- **Chapter IV – Network Services:** providing geographic information with discovery-, view-, download-, transformation- and invoke-services
- **Chapter V – Data Sharing:** measures for easy access and use of spatial data sets including licensing, pricing and e-commerce
- **Chapter VI & VII – Coordination, Complementary Measures and Final Provisions:** SDI-structures, contact point, monitoring, reporting and legal implementation



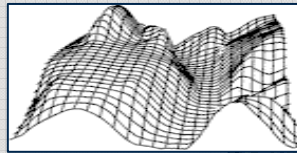
Annex I Themes (to be delivered by 2011 / 2016):

- **Coordinate Reference Systems**
- **Geographical Grid Systems**
- **Geographical Names**
- **Administrative Units**
- **Addresses**
- **Cadastral Parcels**
- **Transportation Networks**
- **Hydrographic Network**
- **Protected Area Sites**



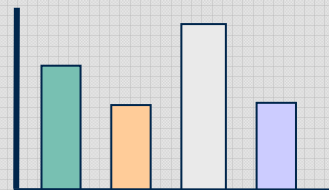
Annex II Themes (to be delivered by 2014 / 2019):

- Elevation
- Land cover
- Orthoimagery
- Geology

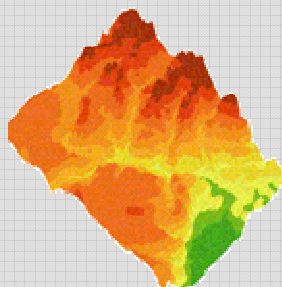
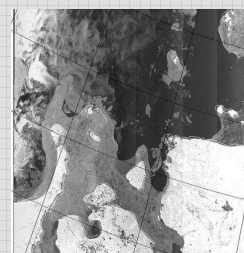


Annex III Themes (to be delivered by 2014 / 2019)

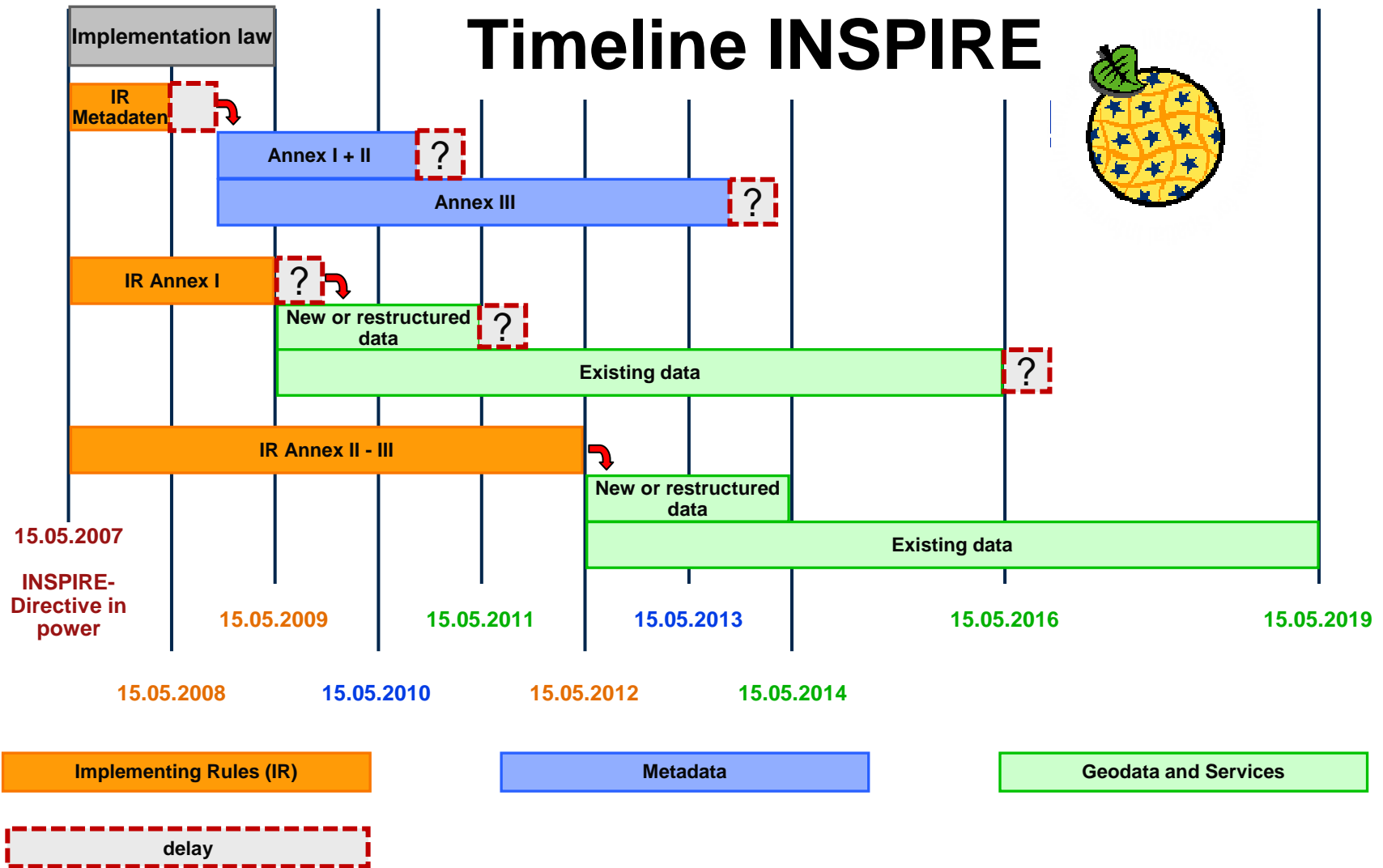
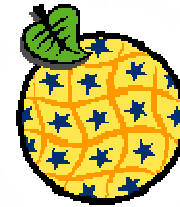
- Statistical units
- Buildings
- Soil
- Land use
- Human health and safety
- Utility and governmental services
- Environmental monitoring facilities
- Production and industrial facilities
- Agricultural and aquaculture facilities
- Population distribution — demography
- Area management/restriction/regulation zones and reporting units
- Natural risk zones
- Atmospheric conditions
- Meteorological geographical features
- Oceanographic geographical features
- Sea regions
- Bio-geographical regions
- Habitats and biotopes
- Species distribution
- Energy resources
- Mineral resources



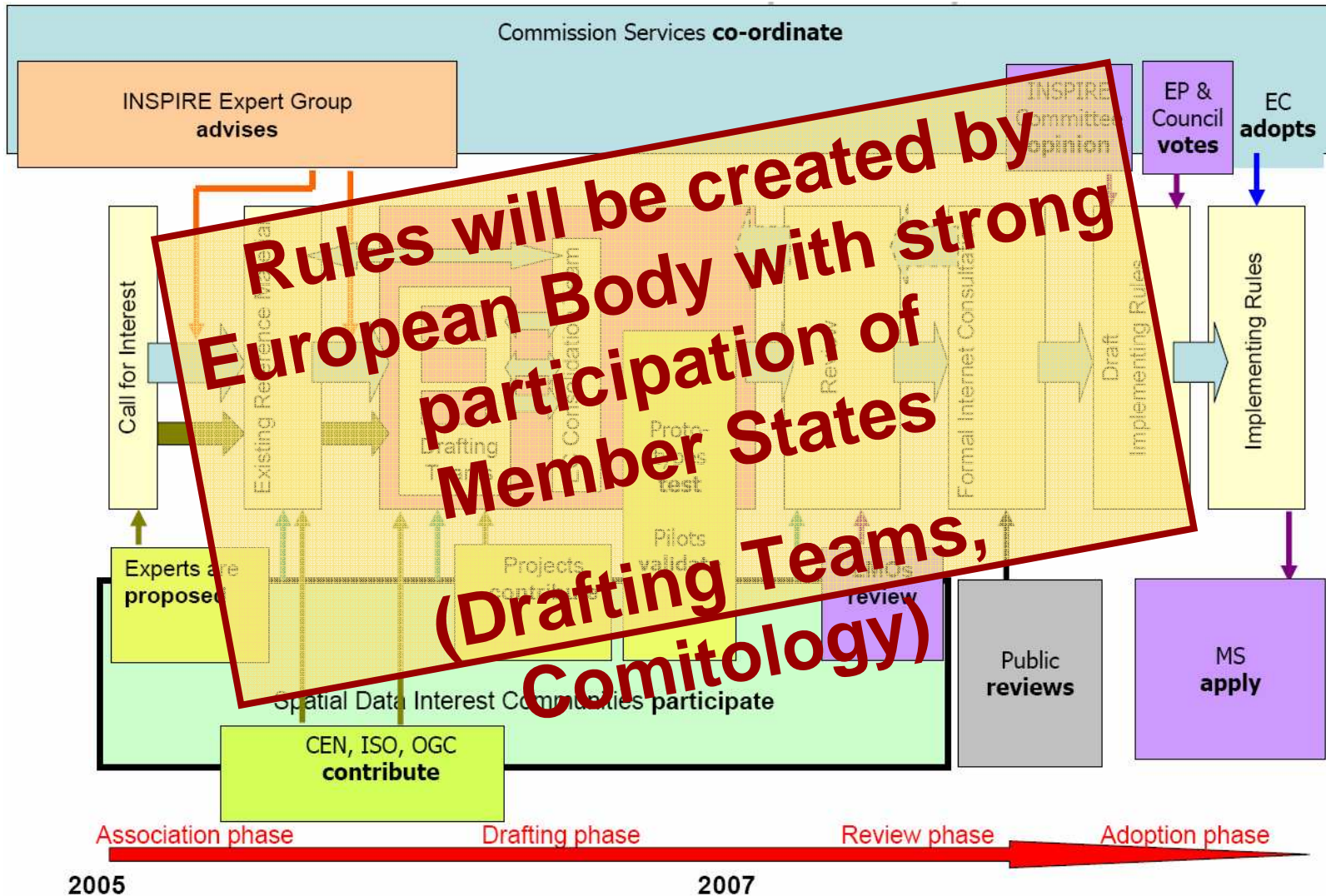
| | Kodex | Höhe | Index | |
|-----|-------|------|-------|------|
| 112 | 344 | 2334 | fe33 | |
| 113 | 24 | 2234 | fe22 | |
| 114 | 23432 | 2235 | fr55 | |
| 115 | 23343 | 2267 | fs22 | |
| 116 | 243 | 2334 | fs11 | |



Timeline INSPIRE

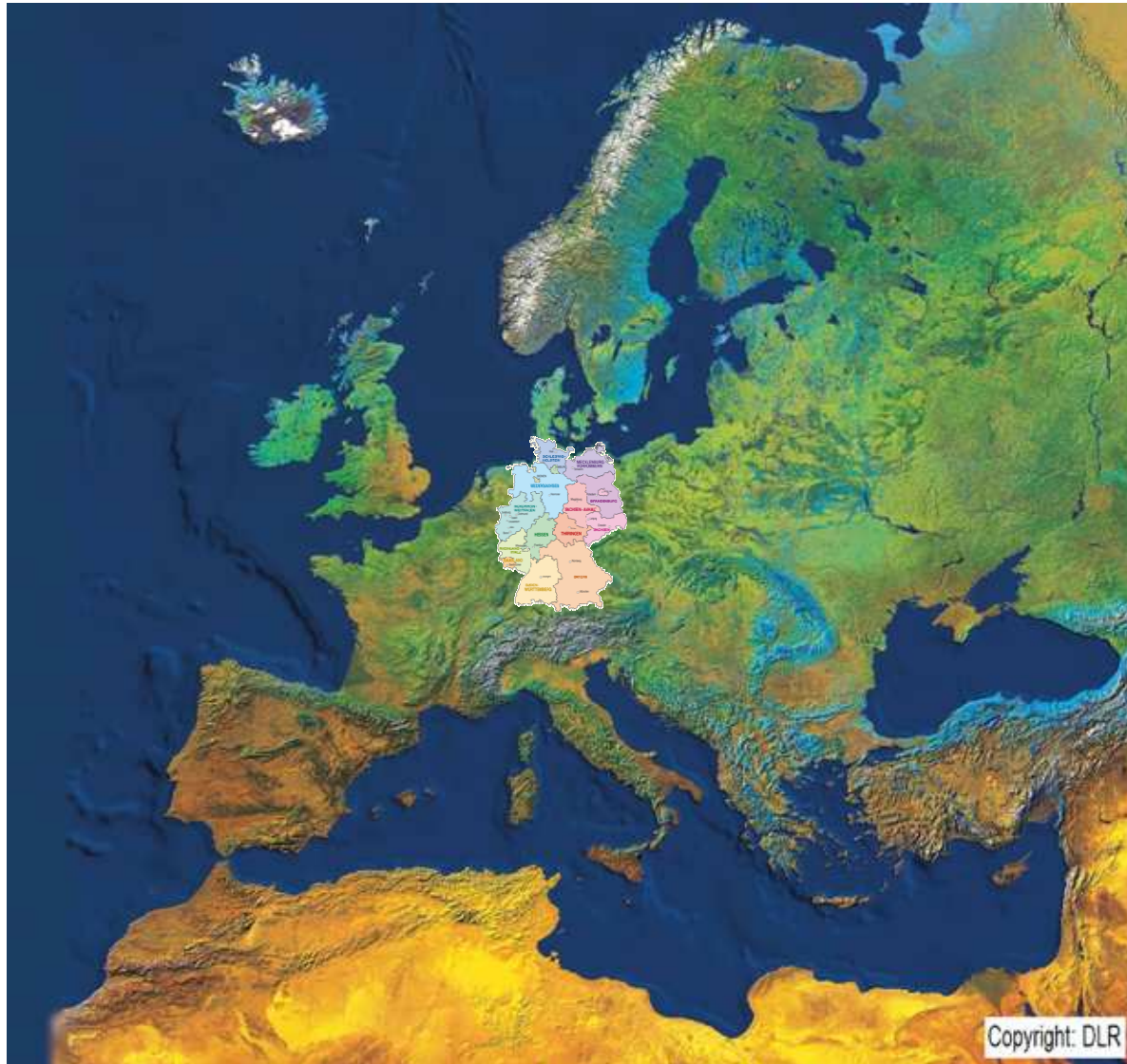


Participating in developing Implementing Rules



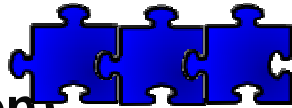
- Towards one SDI in Europe: INSPIRE Directive
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Situation in Germany



- **national level**
the Nation (Federation)

with parliament,
administration,
judicial power



- **regional level (16 States)**

each with parliament,
administration,
judicial power



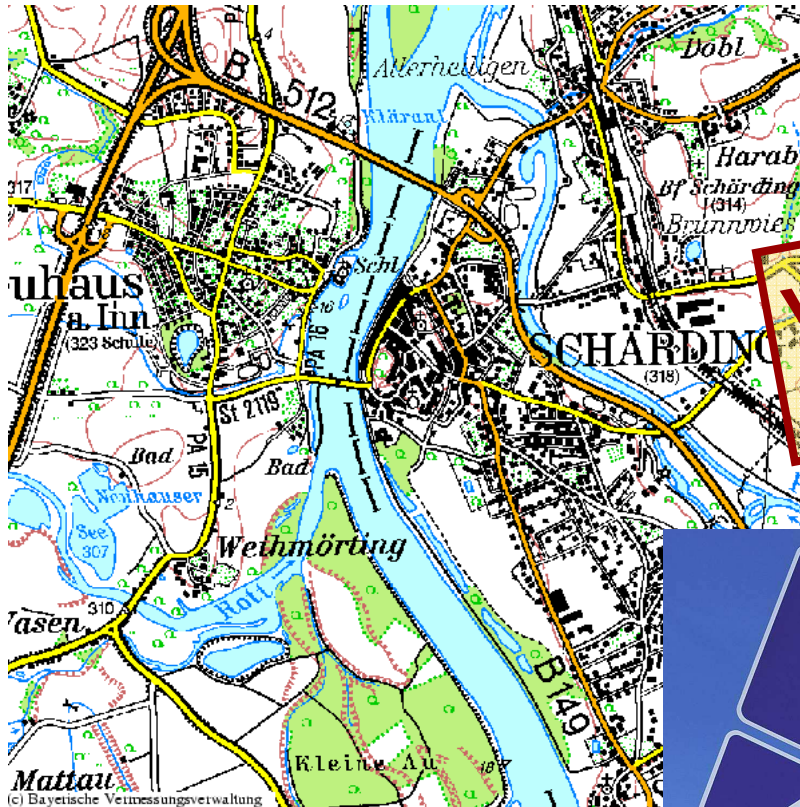
- **local level (~14.000 Municipalities)**

with many rights of self-government



**all levels are
generators and holders
of public informations**

Version 1



Version 2

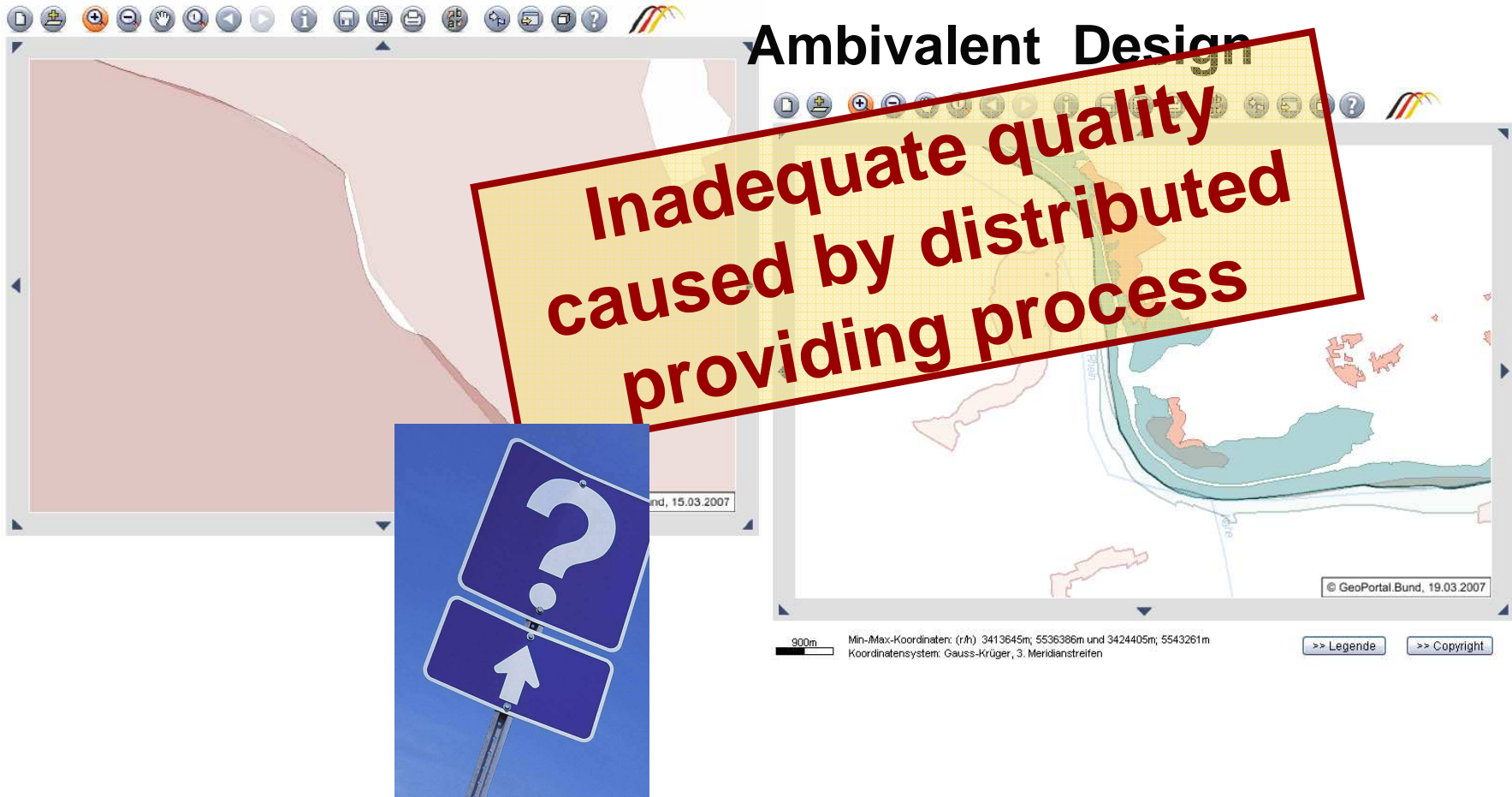
variety of products with different quality



Heterogenous Geometry

Ambivalent Design

Inadequate quality caused by distributed providing process



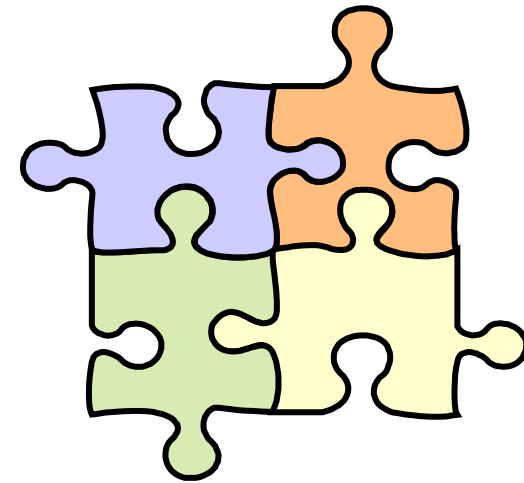
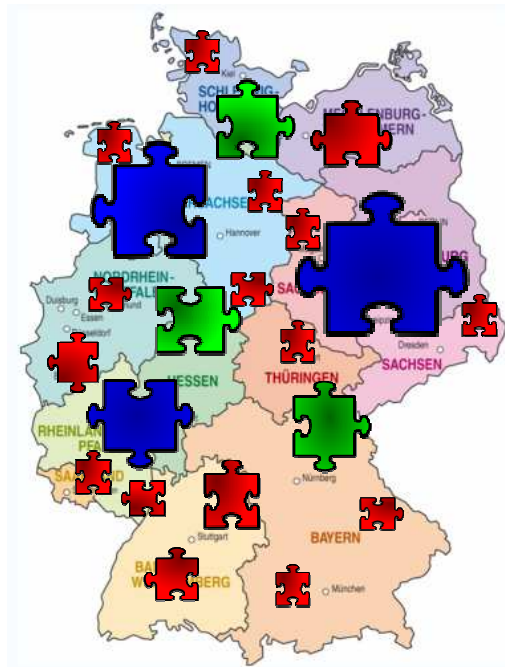
nd, 15.03.2007

© GeoPortal.Bund, 19.03.2007

900m Min-Max-Koordinaten: (r/h) 3413645m; 5536396m und 3424405m; 5543261m
Koordinatensystem: Gauss-Krüger, 3. Meridianstreifen

>> Legende >> Copyright

- INSPIRE Directive
- Impacts for the Member States
- Situation in Germany
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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:

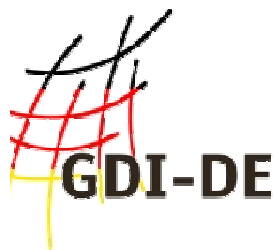
WG Architecture: The architecture working group **compiled and maintains the Technical Architecture GDI-DE.**

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.**

National INSPIRE regulations are coordinated

Working Group of Steering Committee



More or less adoption of INSPIRE regulation 1:1

| | | |
|-------------------------------|------------------|---------------------------|
| Federation | 2008 | new law |
| Baden-Württemberg | 2008 | new law |
| Bayern | 2008 | new law (in power) |
| Berlin | 2009 | new law |
| Brandenburg | 2009 | amandment |
| Bremen | 2009 | new law |
| Hamburg | 2008 | new Law |
| Hessen | 2009 | <u>amandment</u> |
| Mecklenburg-Vorpommern | Not clear | |
| Niedersachsen | 2009 | <u>new Law</u> |
| Nordrhein-Westfalen | 2008 | <u>new Law</u> |
| Rheinland-Pfalz | 2008 | <u>new Law</u> |
| Saarland | 2009 | <u>new Law</u> |
| Sachsen | 2008 | <u>new Law</u> |
| Sachsen-Anhalt | Not clear | |
| Schleswig-Holstein | 2009 | <u>new Law</u> |
| Thüringen | 2009 | <u>new Law</u> |

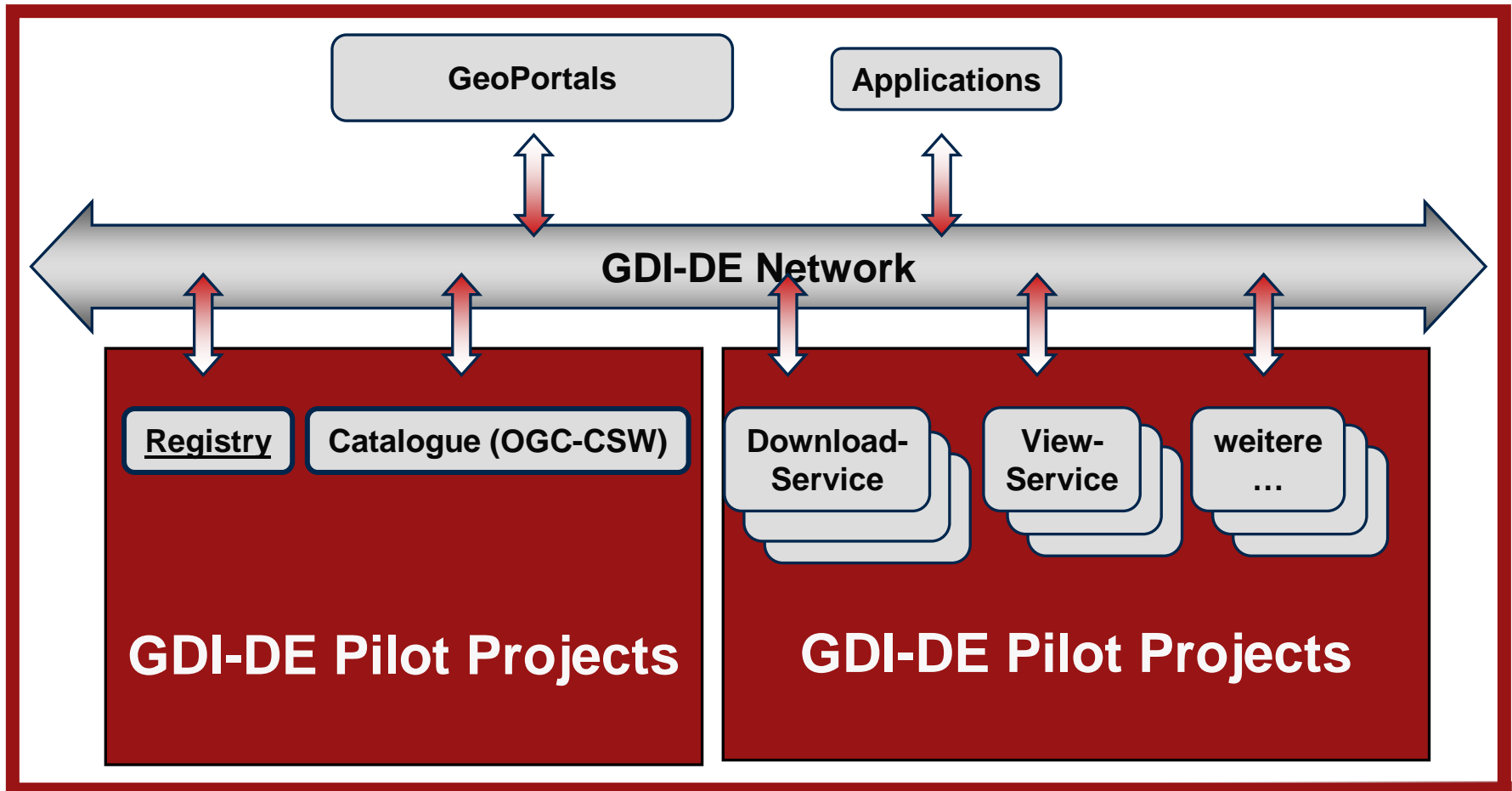


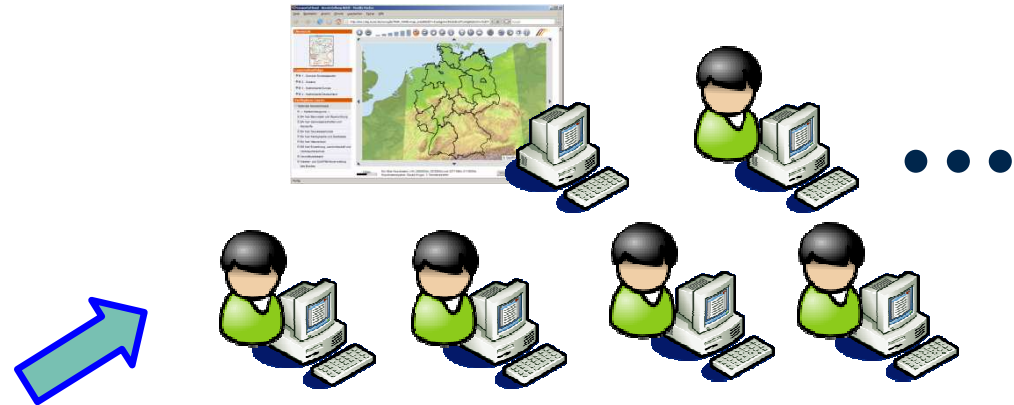
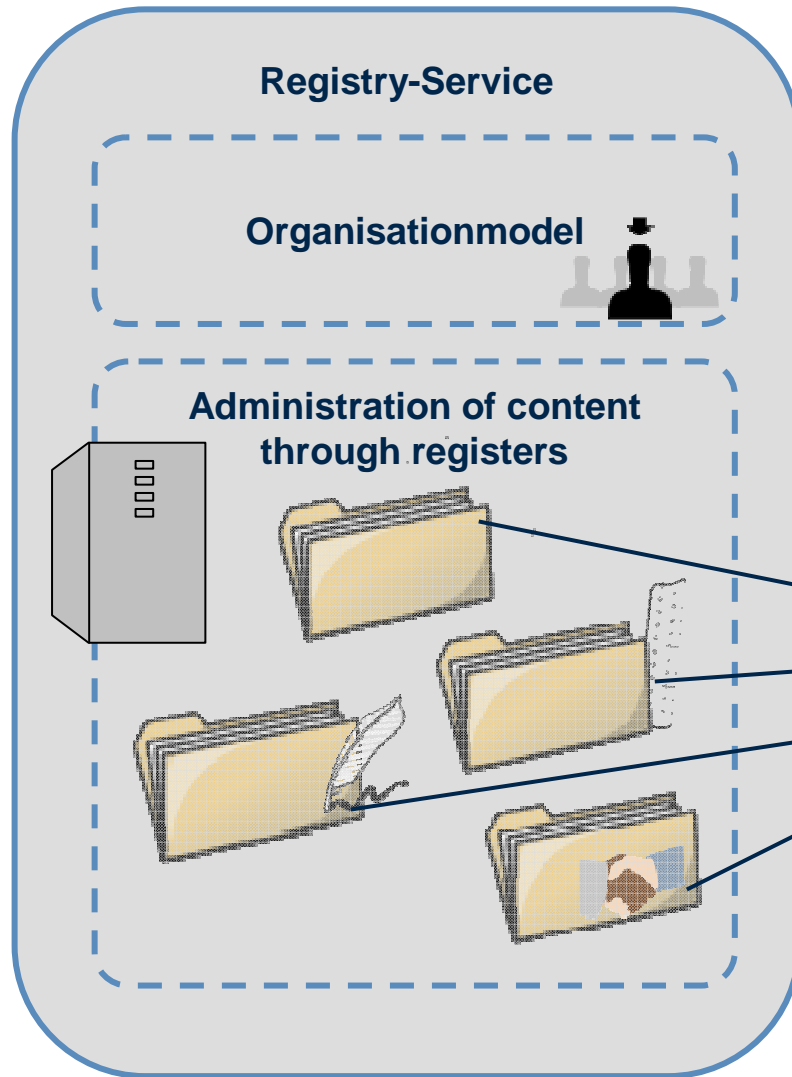
Table of Contents

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

Download: www.gdi-de.org

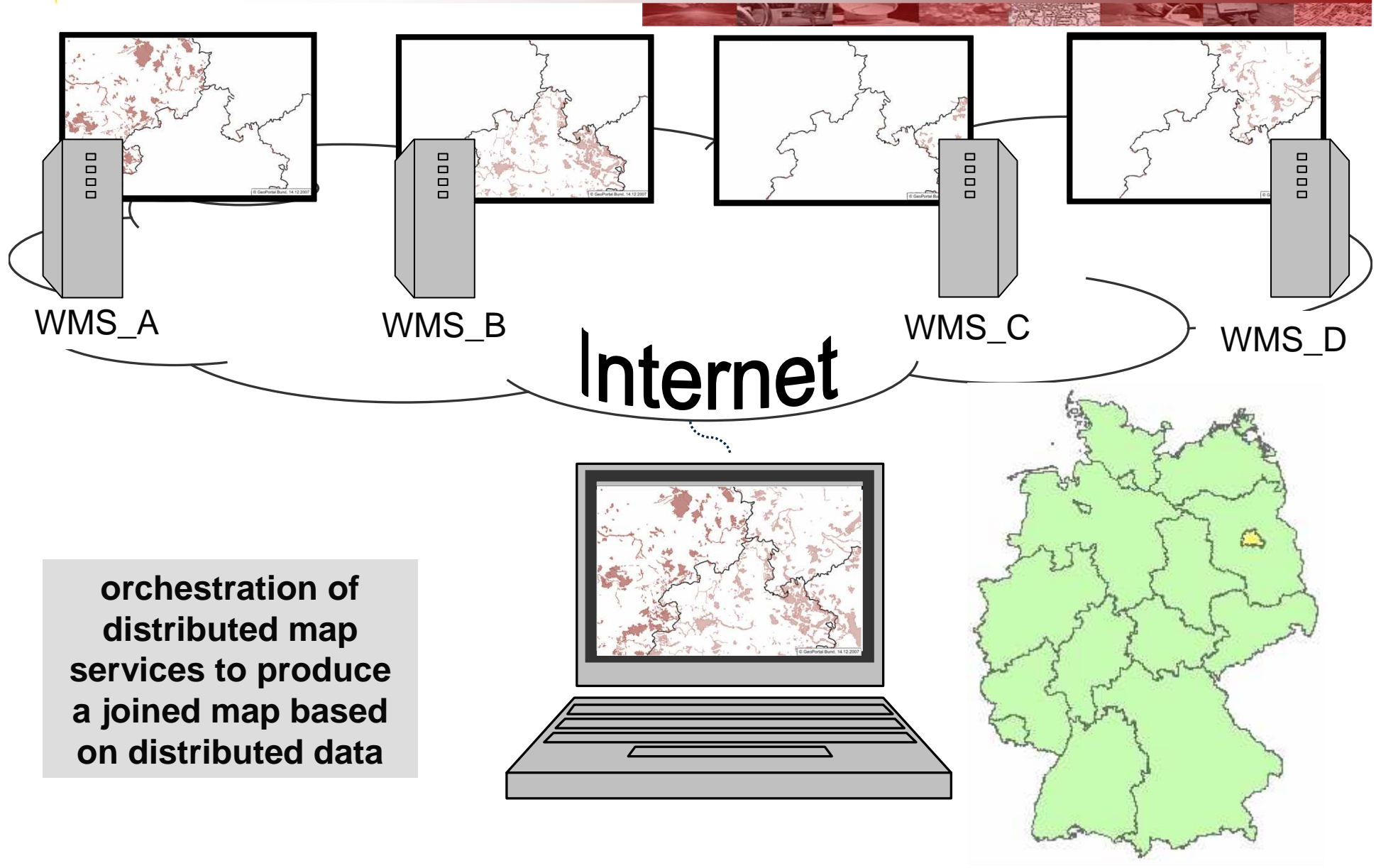
GDI-DE Architecture Data, Standards, Network, Services





Examples: registries for...

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



- INSPIRE has a **strong impact** on SDI in **Member States**
- Germany **first preparation** for INSPIRE started with the first initiative already in 2001 (**INSPIRE Expert Group**)
- **Legal implementation** is in the responsibility of Federation and States – **laws are referring GDI-DE**
- **INSPIRE & GDI-DE** are building **one infrastructure** for regional, national and international needs

No Preparation and Implementation without Coordination

Thank you for your attention

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www.gdi-de.org

www.geoportal.bund.de