Use of German State’s Rhineland-Palatinate Spatial Data Infrastructure for e-Government

Volker Emmel and Hartmut Müller

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Who are we?

University of Applied Sciences, Mainz, Germany
i3mainz, Institute for Spatial Information and Surveying Technology

http://www.geoinform.fh-mainz.de
http://www.i3mainz.fh-mainz.de

Topics of Presentation

• INSPIRE initiative as a project framework
• Good practice study on GIS implementation issues in a public administration
• Project organisation
• Technical issues
• Cost benefit aspects

Government & Administration

Levels in the FRG

• National level (Bund)
• Sub-national level (Land) 16 Länder
• Local level (Gemeinde) ~ 15,000 municipalities
Collaborative Agreement
Sub-National Level / Regional Level

- Contractors
  - LVermGeo Rhineland-Palatinate
  - Landkreisag Rheinland-Palatinate
  - Umbrella organisation of all rural area districts (regional level) in the Land Rheinland-Palatinate
- Lump sum to be transferred on a year by year basis
- Benefits for administrative units at the regional level
  - all spatial basic data provided by surveying authorities available
  - no specific budget needed

Spatial Basic Data Resources
Sub-National SDI

- Data Provided by Surveying authorities
  - Automated Real Estate Register – ALB
    - ownership, land use, etc.
  - Automated Real Estate Map – ALK
    - boundaries, buildings, etc.
  - Digital Landscape Models – DLM
  - Digital Topographic Maps – DTK
  - Digital Orthophotos – DOP
  - Digital Terrain Models – DGM

Study Area
Rhineland-Palatinate, South West Germany
One of 16 German Länder

Regional Authority
Subset of Public Service Products

- Tourism
- Building administration
- Financial management
- Roads
- Transportation
- Heavy loads
- Infection prevention
- Land use regulation
- Landscape planning
- Protection of the rural landscape
- Drinking water control
- Agriculture subsidy
- Regional pilot authority

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Total of ~ 170 service products

Current Situation
Regional Level Authorities

- Overall little use of GIS technology
- Some isolated GIS applications in use (bottom up)
- Spatial basic data not usable due to technical problems
- Growing danger of scattering and of missing integration
- Partly missing awareness of GIS benefits
Goals

The project study intends to:

- develop a conceptual model for GIS implementation at the regional administration level
- give special credit to the integration of spatial basic data
- guarantee compatibility with ISO and OGC standards
- consider the role of GIS as a part in a work flow environment
- seek for stimulation of GIS application in administration units

GIS Implementation

Project Work Plan

Tasks

- System analysis
  - strategic planning
  - field research and analysis of given situation
  - conceptual modelling
  - user specific concept
  - IT-concept
  - cost-benefit analyses
- System acquisition
  - public tender procedure
  - offer rating
  - functional tests
  - system rating, system recommendation
- System implementation
  - system installation, system acceptance
  - data acquisition, data migration
  - system use

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Questionnaire - General

Level of Service Products

- What is the purpose of the product?
- Which data are used?
- How is the spatial data reference defined?
- Which software will be established?
- Which data formats will be used?
- Is a GIS-System / Online-GIS-System already in use?
- Is it possible to support this product by a GIS-application?
- Is it possible to use the geo-spatial basic data provided by the Land survey administration?
- Which other authorities will take part in the results?
- How many people access the data?
- Are there any special problems to be addressed?
GIS Implementation

Service Products <-> Data Sets

Mapping
Public Service Products -> Spatial Data Sets

GIS Implementation
Project Work Plan

Tasks

Cost benefit assessment
Reference Level Service Products

Potential Benefits of GIS Use I
Level of Service Products

Potential Benefits of GIS Use II
Level of Service Products
Potential Benefits of GIS Use III
Service Products with Highest GIS Potential

- land use planning
- urban land use planning
- agrarian furtherance's
- epidemic abatement on animals
- business development
- transportation
- tourism
- ...

Conclusions
How does the project fit with INSPIRE Principles?

- Data should be collected once and maintained at the level where this can be done most effectively
- It should be possible to combine seamless spatial information from different sources across Europe and share it between many users and applications
- It should be possible for information collected at one level to be shared between all the different levels, detailed for detailed investigations, general for strategic purposes
- Geographic information needed for good governance at all levels should be abundant under conditions that do not refrain its extensive use
- It should be easy to discover which geographic information is available, fits the needs for a particular use and under which conditions it can be acquired and used
- Geographic data should become easy to understand and interpret because it can be visualised within the appropriate context selected in a user-friendly way

and finally ...

only one drop
in the ocean
of SIM development
but
little strokes fell big oaks!