

**Office for geoinformation – canton
of Berne (OGI)
Switzerland**



Geoinformation Modelling in the Canton of Bern

Francesco Siragusa
Conference on GIS, Turkey
October, 30th 2007

Office for geoinformation

Conference on GIS, Turkey

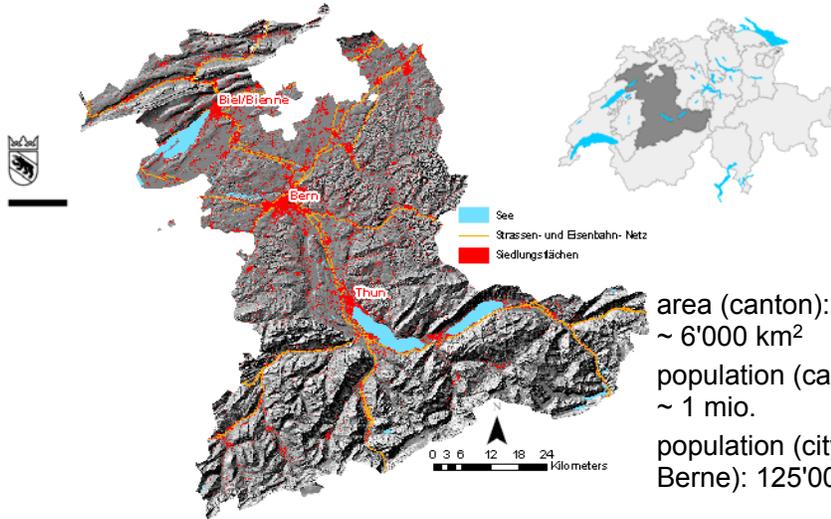
Overview

1. Introduction
2. Spatial Data Infrastructure
3. Geodata
4. Geodata process
5. Organisation & networking
6. Future developments
7. Success factors



1. Introduction

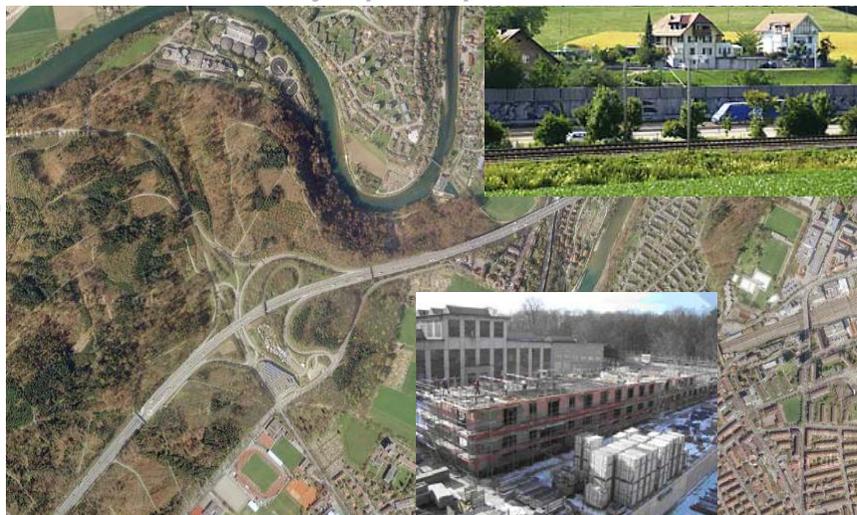
situation - key aspects - public administration



area (canton):
~ 6'000 km²
population (canton):
~ 1 mio.
population (city of
Berne): 125'000

1. Introduction

situation - key aspects - public administration



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situation - key aspects - public administration



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1. Introduction

situation - key aspects - public administration



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1. Introduction

situation - key aspects - public administration

guiding line

- "to strengthen sustainable development"

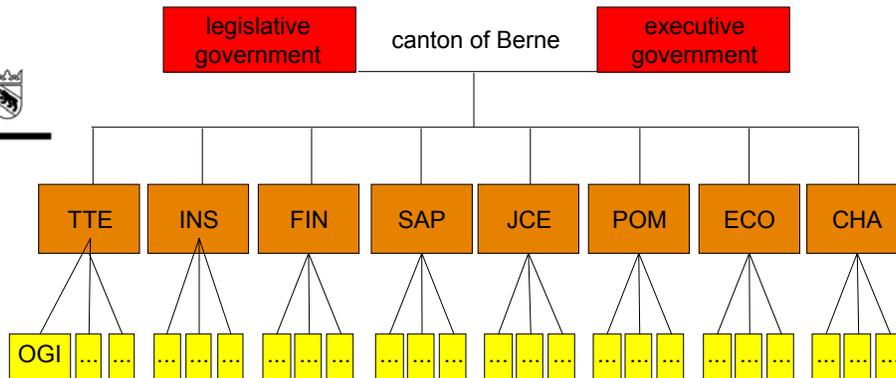


key aspects

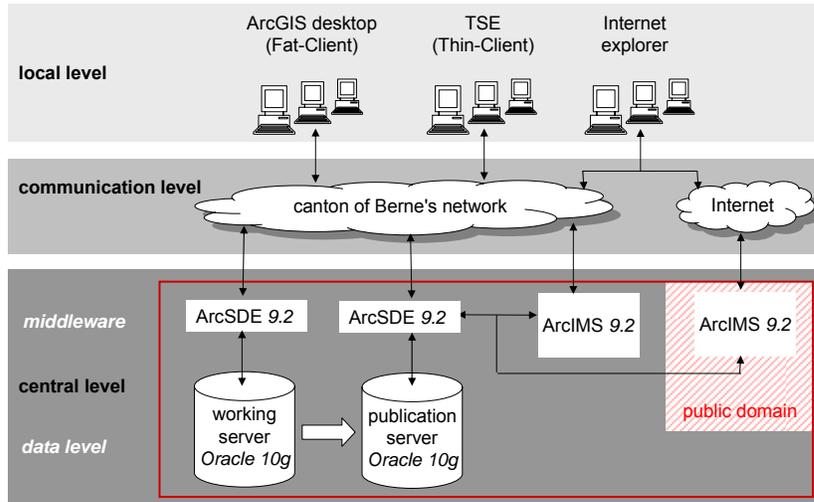
- spatial development
- transport
- energy
- flood control/protection

1. Introduction

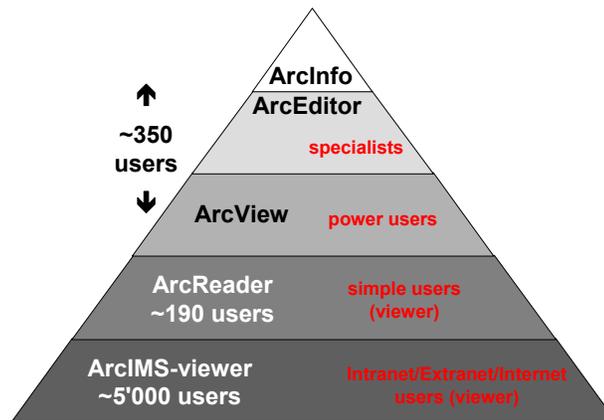
situation - key aspects - public administration



2. Spatial Data Infrastructure (CSDI) overview - ArcGIS - ArcIMS applications - results



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(October, 2007)

2. Spatial Data Infrastructure (CSDI) overview - ArcGIS - ArcIMS applications - results

extension 1: layers loader

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2. Spatial Data Infrastructure (CSDI) overview - ArcGIS - ArcIMS applications - results

extension 2: GEODAT-Tools

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2. Spatial Data Infrastructure (CSDI)

overview - ArcGIS - ArcIMS applications - results



GEODAT-View



Geoportal



GISTRAL



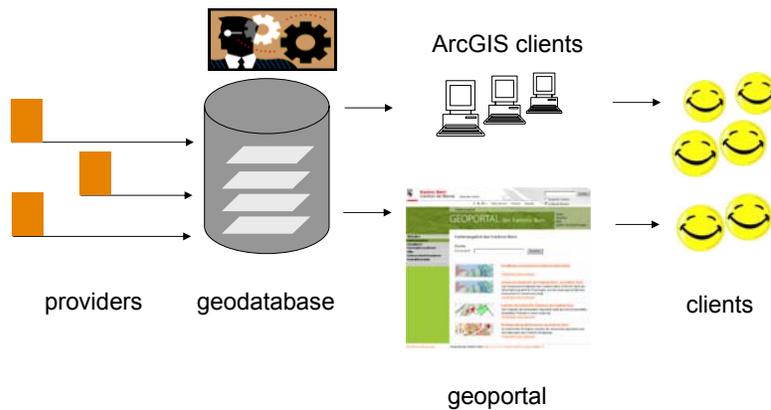
FORSIG



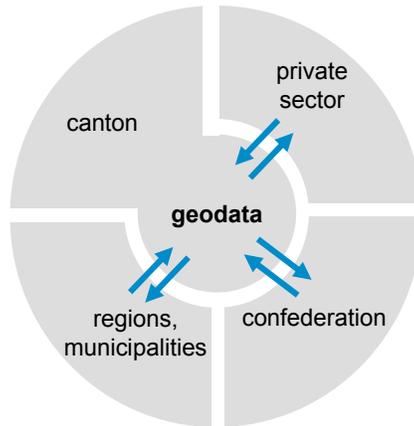
GRUDIS

2. Spatial Data Infrastructure (CSDI)

overview - ArcGIS - ArcIMS applications - results



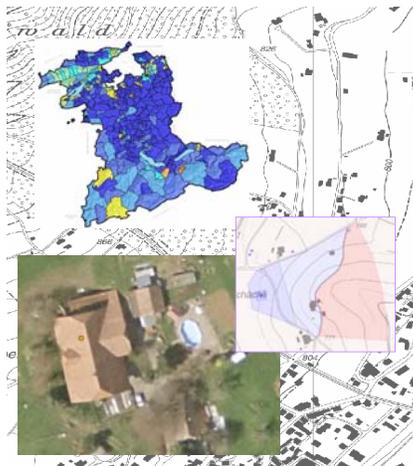
3. Geodata overview - products



themes

- administrative units
- addresses
- transport networks
- hydrography
- land use
- orthoimagery
- ...

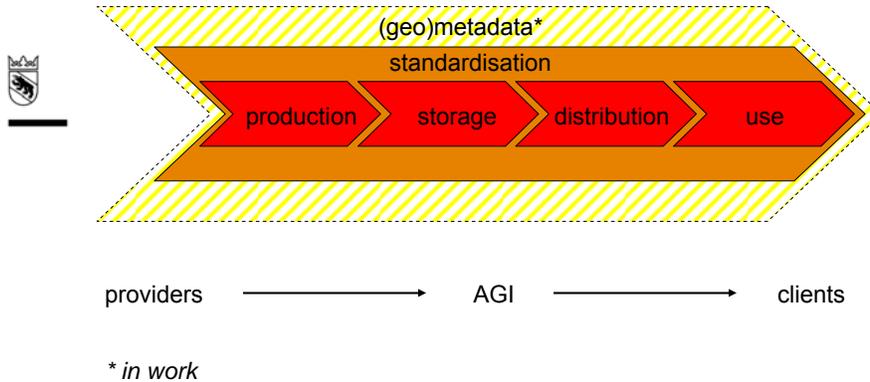
3. Geodata overview - products



- ~ 120 different geoproducts with ~ 2200 layers
- current and historical time frame
- ~ 750 GB data

4. Geodata process

overview - application area



4. Geodata process

overview - application area

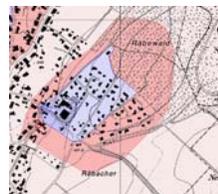
Example 1:

Authorisation for geothermal heating (OPED)

Generally drills are **not** allowed

- in groundwater protection areas and in areas that contain useable sources
- in pollution areas
- in landslides areas

Film



- Gewässer- und Grundwasserschutz
- Schutzzonen-Fassungsbereich (Zone S1)
- Engere Schutzzone (Zone S2)
- Weitere Schutzzone (Zone S3)
- Zuströmbereich (statt S3)
- Schutzzone mit beschränkter Wirkung
- Grundwasserschutzareal (Zone SA1)
- Grundwasserschutzareal (Zone SA2)
- Grundwasserschutzareal (Zone SA3)
- Zone 5 ausserhalb Kanton Bern
- Gewässerschutzbereich Au
- Gewässerschutzbereich Ao
- Gewässerschutzbereich B
- Erdsondenverbot (Teil des Bereiches B)
- ausserkantonale Enklave im Kt. Bern

4. Geodata process

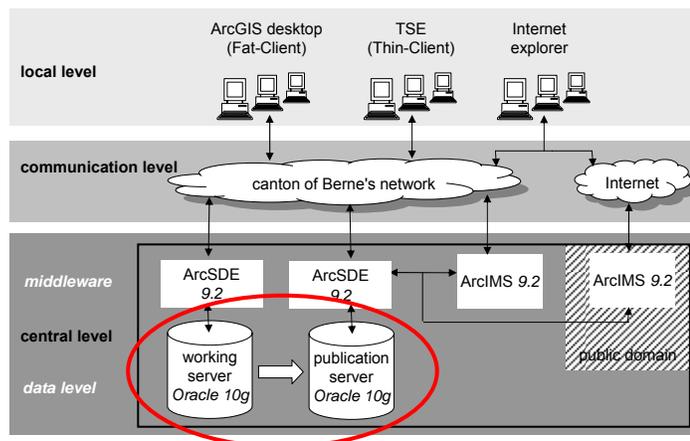
overview - application area

Example 2:
Import of geodata in the GeoDB and
export for download (OGI)



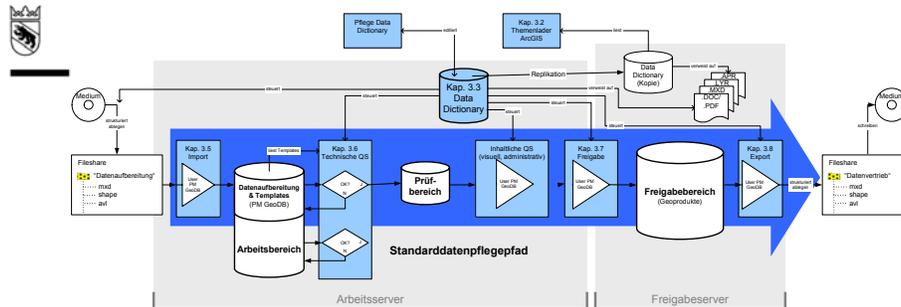
4. Geodata process

overview - application area



4. Geodata process

overview - application area

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5. Organisation & networking

OGI's role - networking

- technical infrastructure
- CSDI's central system
- geodata storage and distribution
- release management of the GIS software
- supports
 - GIS
 - geodata standardisation
 - integration of production systems in the geodatabase
- GIS courses

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5. Organisation & networking

OGI's role - networking



- high interconnexion within the canton
- meaningful task sharing (OGI/offices/private companies)
- high interconnexion with other administrative offices → NSDI
- look at European projects → ESDI

5. Organisation & networking

OGI's role - networking

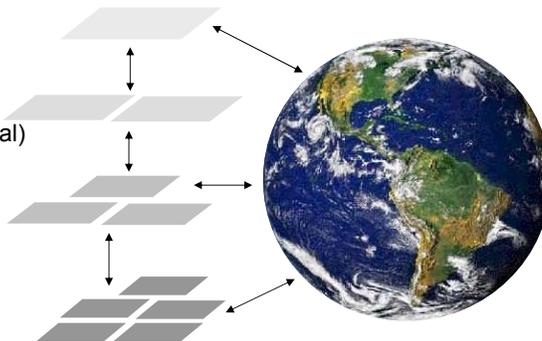
Spatial Data Infrastructures

GSDI
(global)

ESDI*
(supra-national)

NSDI, e-geo
(national)

CSDI
(cantonal)

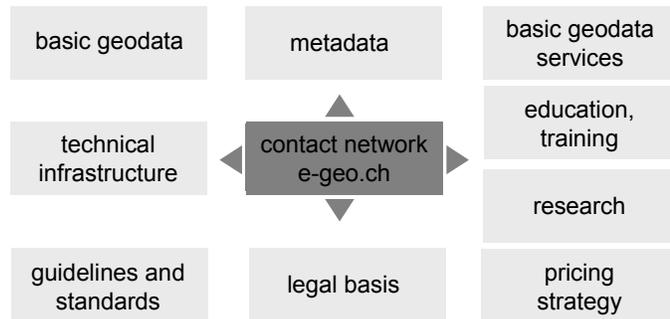


* INSPIRE directive, Humboldt EU-project

5. Organisation & networking

OGI's role - networking

e-geo program



5. Organisation & networking

OGI's role - networking



Infrastructure for Spatial Information in the European Community (INSPIRE)

Directive of the European Parliament and of the Council

March 14th, 2007 (entry into force: May 15th, 2007)

Swiss federal law on geoinformation (GeoIG)

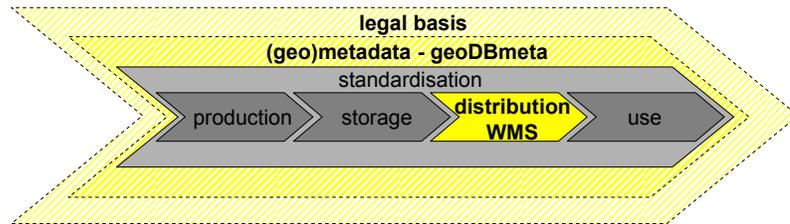
October 5th, 2007 (entry into force: July 1st, 2008)

Cantonal law on geoinformation (KGeoIG)

in work (entry into force expected in 2011)

6. Future developments

- (geo)metadata database (geoDBmeta)
- Web Map Service (WMS) implementation
- legal basis



6. Future developments

specific projects



7. Success factors

- standardisation
 - legal basis
 - CSDI's future development: to look at possibilities and not at wishes
 - collaboration & networking
- **wide, sustainable, up-to-date, quick and easy use of geodata**



Thank you for your attention.

Questions?

