GML-based spatial planning
Architectural issues

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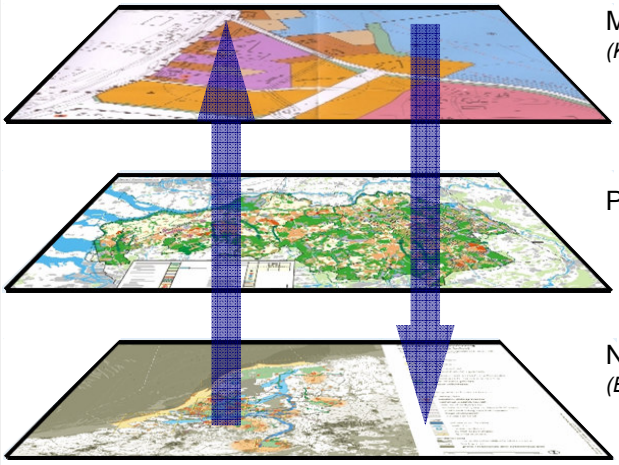
Architectural issues of GML-based spatial planning

Presentation about:

- Implementing a working SDI on authorative data is a lot more then just a bunch of standards
- Standards need validation and test beds/encouraging phase
- There is still a lot to be done on truly interoperability

Spatial planning: chain within government

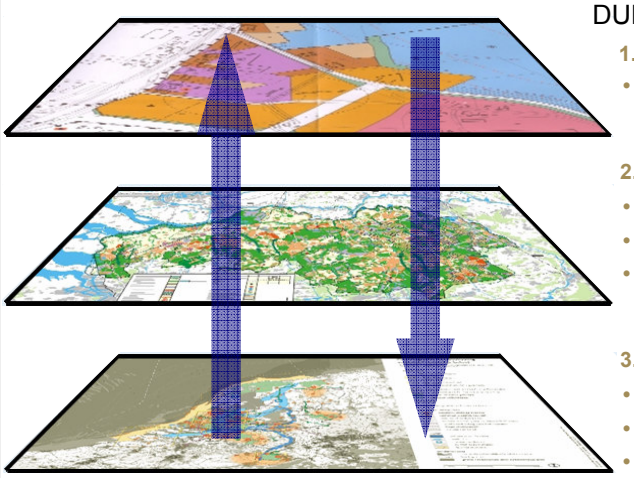


Municipalities
(Kreise & Städte)
- Land use plans
- Project decisions

Provinces *(Bundesländer)*
- Structural vision
- Provincial orders

National government
(Bundesrepublik)
- Structural vision
- Order in council

Spatial planning: chain within government



DURP-program

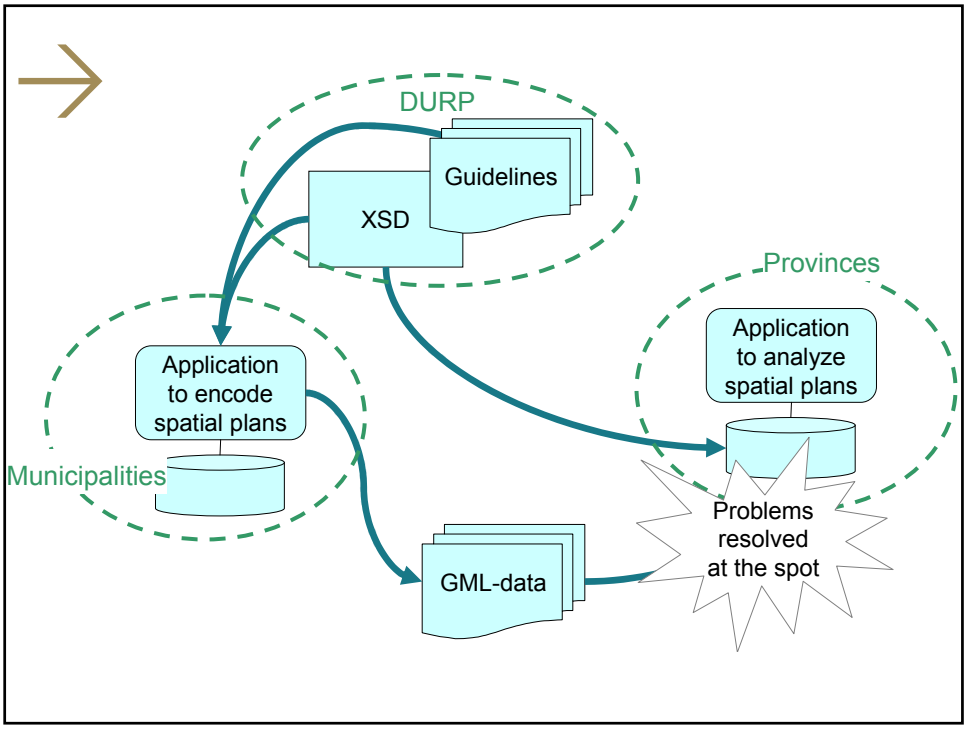
1. semantics & harmonization
   - *legend*

2. exchange
   - *GML*
   - *encouraging use*
   - *analog still legal*

3. new spatial planning act
   - *digital = authentic*
   - *enforced!*
   - *standarizing exchange*

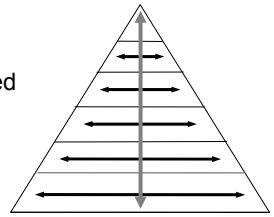
Phase 2. Exchanging data physically

- Physical exchange was the legal process
  - > Data harvesting of land use plans at provinces and government
- Encouraged phase!
  - > Need for early adaptors
  - > Getting support
  - > Broad scope: everything digital was alright
  - > Temporary investments (*but organizations didn't know*)



Phase 3: the new spatial planning act

- Big change in the workflow
- From 1 July 2008 all **new** plans according this act
- New spatial planning act ≈ SDI
  - > Authoritative (spatial) data
  - > Organizations
  - > Political framework
  - > Access, distribution and storage is defined
  - > Standards (ISO/OGC)

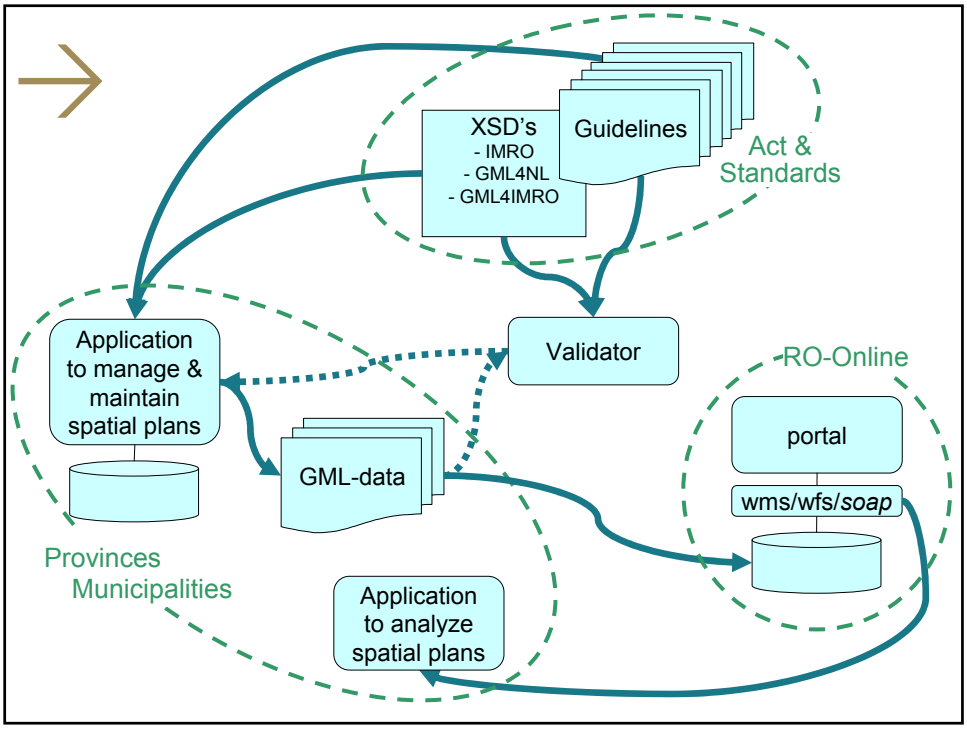


Architectural issues (1)

- Spatial plans (IMRO-GML) are authentic, (reliability)
  - > *Use hash codes & security certificate*
- Civilians want to see maps, not encoding
  - > *deliver GML & (national) webmapping*
- A portal can't support all use cases
  - > *OGC web services*
    - *40% WMS*
    - *40% WMS-SLD*
    - *5% WFS*
    - *5% SOAP*
- Dutch SDI framework: WFS1.1, IMRO = GML 3.1.1
  - > *Only few systems are capable of handling WFS1.1*
  - > *Translate to WFS1.0*

Architectural issues (2)

- 'Data at the source' paradigm in government reference architecture, but municipalities aren't capable of implementing
  - > *eGovernment architecture national data stores based on principle 'acquire once, use everywhere'*
- Spatial planning in INSPIRE annex 3
  - > *National data stores assigned as replacement for 'data at the source'*
  - > *National data store is mentioned in the act (reliability)*
- At the moment only invalid data, not well formed, not according to guideline, not interoperable geometry
  - > *Validation-service*



RO-Online & open source

- RO-Online
  - > Is a SDI-node
  - > Generic parts: database, OGC-services, validation XML/GML
  - > Specific parts: harvesting, validation business rules, portal
- Judgement (of proposals)
  - > Complex project >> Good project management
  - > Total Cost of Ownership
  - > Preference for open source by equality
  - > COTS/proven technology:
    - heavy stack of components
    - not 100% OGC-specifications (OINO ☺)
  - > Open Source
    - well suited as SDI-node: there's no data making process
    - easy (€€€) to scale

Conclusions

- Validation on standards is essential for truly interoperability
- Test beds are essential for any standard
- Encouraging <> Enforced
  - *people with a vision*
  - *willingness temporary investments*
  - *people who make it work*
  - *true interoperability*
- Dutch SDI framework ≠ 100% compliant with reality
- Implementing organizations still have small knowledge of OGC-specifcations

Fragen?

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