The next step is…
interoperability in processes!

A Dutch example of process interoperability between asset management and surveying

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Agenda

- Short intro on Grontmij
- Bigger picture
- With 3 processes descending the architectural layers
Grontmij in a nutshell

- Founded in 1915
- Regional player in Europe
- 300 offices in Europe
- 50 office outside Europe
- 10,000 people
- 4 divisions
  - Planning & Design
  - Transportation & Mobility
  - Water & Energy
  - Monitoring & Testing
My point of view: of next gen…
What is going on in Holland?
e-Government

- **Goal**
  - better service provision
  - more efficient government

- **By**
  - enhance interoperability
  - base registrations
  - standard components

- **Requires**
  - cross-Government Reference Architecture
  - cross-project coordination
Architectural layers

- **Business**
  - What?
    - Services
    - Products
  - Who?
    - Organisation
  - How?
    - Processes

- **Information architecture**
  - What?
    - Data
  - Who?
    - Applications
  - How?
    - Exchange of information

- **Technical infrastructure**
Information exchange
Information exchange

Business process

Business process

Grontmij
Information exchange
Information exchange

- Public asset management
- Base registration
  Building & Addresses
- Making large scale base maps
Public asset management

- Ambitie
- Monitoren
- Opdrachten
- Toezicht
Managed by visual quality

onkruid op verharding - zwerfvuil op verharding - zwerfvuil in groen

Hoog

Basis

Laag

Zeer laag
Information is the key
Base registration addresses & buildings
Base registration addresses & buildings
Base registration, large scale base map

- National object oriented base map
- Detailed object descriptions
- On the level of public asset management!
- Buildings
Large scale base map & assets
Large scale basemap

Detailed for public asset management
Large scale base map & assets
Changes

- Frequent changes
- Very frequent changes in buildings

Public asset management

- Making large scale base maps
  - Surveying done in bulk

Base registration
Building & Addresses
Request for changes

- Public asset management
  - Frequent changes

- Base registration Building & Addresses
  - Very frequent changes in buildings

- Making large scale base maps
  - Surveying done in bulk
Response ‘is ready’

- Public asset management
  - Frequent changes

- Making large scale base maps
  - Surveying done in bulk

- Base registration
  - Building & Addresses
  - Very frequent changes in buildings
Data standardisation (exchange models)
Information exchange

Business process
Data
Application

business interaction
semantics
transactions

Business process
Data
Application

Grontmij
Indicating a building
Indicating a building
Building is surveyed
Send message
Geometry of building is ready
Information exchange

- Business process
- Data
- Application
- Communication function

- business interaction
- semantics
- transactions
- communication protocol

Grontmij
Beheer Openbare Ruimte

KOPPEL VLAK

Beheer Basis Geometrie

Bericht

(Berichten-afhandeling)

Beheer

BOR.database beheergegevens

Geometrie Database punt/lijn/vlak

BGT
Transactions & communication

- Processes require publish/subscribe services
  - Not request/response
- So services are based on SOAP/WSDL
  - Not on WFS/WFS-T
- SOAP envelope with GML body/content
- Is used to communicate changes in topography with the national facility (harvester) as well
- ‘ESB’ enabled
- Different vendors work together: best of breeds without vendor locking
Paradigm shift?

- Up to know
  - Surveyors determined accuracy of topography
  - Centimeters!
  - Making maps was there ‘playing field’

- Already
  - Why can’t a asset manager not measure an object?
  - His processes do not require that detail
  - As he sees it!

- Feature
  - Surveying by asset managers?
Conclusions

- Embedding geo-information in business processes requires interoperability on all levels
- Requires embracing W3C-standards
- Could lead to more efficient and effective way of getting the geometry
- A shift: Out of hands of the classical surveyors.
Thanks!

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