The Dutch Cadastre and E-government in the Netherlands

May 25th 2009

3rd UN Sponsored Land Administration Forum for the Asia and Pacific Region

kadaster feitelijk verrassend
Head office
Real Estate Agent
Notary Office
Electronic recording of notarial deeds of transfer

http://www.gsd.i.org
Information through one stop shop
Information for everyone through internet
Digital output
GPS in national triangulation network
Efficient data acquisition
GPS in cadastral boundary survey
Digital cadastral map 1:1,000
Digital maps
Digital topographic map 1:1,000
New Cadastre Infrastructure

AKR/Hyp

Output services

Salary processing

Network

Firewall service

Internet

SANSAN

Windows

Unix

VMS

Location 1

Location 2

Central

CC

Office worker

Home/Field worker

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http://www.gssi.org
Fully automated
Fully automated archives and work processes
Information about public restrictions
Information about appeals against land use plan
Information about public land management
Information about noise hindrance

Figure 1: Review of the confrontation of noise contours and surface area, number of dwellings and people involved.
Information about walking distances for postmen
Information about sales agricultural lands

http://www.gski.org
Registration of sub surface infrastructures
ISO certified
International experience, for example Caribbean after hurrican.
Meetings and symposia for example Namibia
International experience, for example Egypt
International experience, for example Russia
International experience for example
Hungary
International experience for example
Bolivia
International Experience for example
Albania
International experience for example Slovenia
And: also in China!
Municipal cadastre Nanjing
Launch Pro land Project March 2007
UNU-School for Land Administration Studies ITC-Kadaster
UNU School, long and short courses
What is 'land administration'

- Land administration is the process of determining, recording and disseminating information about ownership, value and use of land, when implementing land management policies (UN Land Administration Guidelines)
- 'Ownership' = mode in which rights to land are held, either by statutory, common and customary law
conceptual view on development of NGII

extent of cooperation and information need

stand alone  exchange standardization  intermediary  network

time

location of the geo field

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## Development of an SDI

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Stage</th>
<th>Stand alone</th>
<th>Exchange</th>
<th>Intermediary</th>
<th>Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td></td>
<td>Focus on individual organisation</td>
<td>Developed with all stakeholders</td>
<td>Implementation</td>
<td>Commonly shared, and frequently reviewed</td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td>Focus on individual organisation</td>
<td>Questioned</td>
<td>Accepted</td>
<td>Respected by all stakeholders</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td>Focus on individual organisation</td>
<td>Open between public parties</td>
<td>Open between all stakeholders</td>
<td>Open and interactive between all</td>
</tr>
<tr>
<td>Self-organising ability</td>
<td></td>
<td>Passive problem recognition</td>
<td>Neutral problem recognition</td>
<td>Actively helping to solve identified problems</td>
<td>Actively working on innovation</td>
</tr>
</tbody>
</table>
2003 SDI Vision
- Cadastre
- Buildings
- Enterprise
- Population
- Addresses
- 1:10,000 topographic set
- 1:1000/2000 topographic set
Key registers

- Personal Records Database
- Trade Register
- Buildings and Addresses
- Cadastre
- Topography (1:10,000 and smaller)
- Large scale topography
- Vehicles
- Wage, Employment and Benefit Relationships
- Income and Assets
- Property values.

Separate law for each key register

no law for overall system
GIDEON – Key geo-information facility for the Netherlands

Approach and implementation strategy
(2008 – 2011)

GI-council strategic
Geonovum tactical
RGI/Geoland R&D
eGov programs
operational
What is a spatially enabled society?

• When public sector, private sector and citizens decide, they should have access to spatial information that is meaningful to their decision making process

• Integration and sharing of data provides meaningful information, which is impossible in a non-digital environment
How to realize?

- Government to safeguard availability and access to spatial data through NSDI
- Government to facilitate electronic legal and economic transactions
- Data suppliers to organize availability and access to data and services, to deliver quality information
Government to safeguard availability and access through NSDI

- Key Registers and Concept of National Access Service
- Public Restrictions Registers with National Access Service
- Digital Land Use Plans
- Digital Elevation Model
- Large Scale Topo Base Map (GBKN)
- Subsurface Topography
- Inspire and Eulis
- Stimulation Programme Geoinformation
- Administration of NSDI
Authentic of ‘key’ registers

• Problem: Multiple data acquisition and multiple storage, unknown quality parameters and unknown datasources
• Result:
  - government inconveniences citizens and the business community with requests for the same data many times.....
  - government does not deliver rapid and good service.....
  - government is misled.....
  - government make costs higher then necessary.....
• In 2000 ambitious plan ‘Streamlining Key Registers’, which is currently under implementation

http://www.gssi.org
What is a ‘key’ register?

“A key register is a high quality database accompanied by explicit guarantees ensuring for its quality assurance that, in view of the entirety of statutory duties, contains essential and/or frequently-used data pertaining to persons, institutions, issues, activities or occurrences and which is designed by law as the sole officially recognised register of relevant data to be used by all government agencies and, if possible, by private organisations throughout the entire country, unless important reasons such as the protection of privacy explicitly preclude the use of the register.”

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How to become a ‘key’ register: 12 requirements.

1. Regulated by law
2. Compulsory feedback
3. Compulsory use
4. Liability datasupplier
5. Transparent costing
6. Clear content and scope of the register
7. Procedures between supplier and user
8. Accessibility of databases
9. Quality of data (correctness, actuality, completeness)
10. Datasupplier committed to users’ influence
11. Clear relation to other key registers (system consistency)
12. Responsibility and control by government
State of affairs

1. Personal records (citizens)
2. Trade register (companies)
3. Cadastral register and maps
4. Topographic information
5. Buildings
6. Addresses

7. Vehicle registration certificate (numberplates)
8. Register fiscal incomes
9. Register real estate fiscal value

10. Register inhabitants-non citizens
11. Large Scale Topographic Base Map GBKN
12. Register subsurface topography

core
decided
investigated
State of affairs
geo-information datasets

• Law Key register ‘cadastral registers and maps’ and key register ‘topography’:
  - Lower house  8-2-2007
  - Upper House  27-2-2007
  - State Gazette  22-3-2007
  - into force  1-1-2008

• Law Key register ‘addresses’ and key register ‘buildings’:
  - Lower House  22-2-2007
  - proposed into force  mid 2009

• Personal census into force 1-4-2007
• New trade register?
Subsidiarity

- Information management at appropriate level
- Safeguard national access

Local database

National database

National Access Service

http://www.gsdi.org
Law on Registration Public Restrictions

- About 80 public restrictions with third party power
- Imposed by various government bodies
- Tour de force to acquire full details of legal status of land parcel
- Law passed upper house 27-2-2007
- Will come into force 1-7-2007
Scope Act Registration Public Restrictions

municipality  municipality  municipality  municipality

National database

updates

Information to Kadaster-on-Line

Inquiry through Kadaster-on-line

Kadaster

GEMnet

updates

Wate Boards  Hist Monuments  Provinces  Ministries
Some additional developments

- Digital land use plans
- New law State Gazette 566 d.d. 28-11-2006, into force end 2007
- All zoning plan digitally available and exchangeable
- For:
  - better citizens participation
  - better datasharing and data integration
Digital Elevation Model

- Since 2003
- Ministry Transport, Works and Water AGI
- Based on laser altimetry
- Each pixel 4x4 meter 1 altitude
- Standard dev max 15 cm
- Syst error max 5 cm
GBKN

- Started in 1975
- Ready 2000
- 230 million € initial
- 20% maintenance
- PPP
- Potential key register
- Basiskaart-on-line
Subsurface infrastructure

- Letter of the Minister of Economic Affairs and of Spatial Planning d.d. 23rd November 2004
- 1.7 million km cables subsurface
- Importance for national economy
- Measures:
  - better registration
  - better planning
- Result:
  - Law submitted to parliament
    march 2006
  - Cable and Pipeline Information
    Centres merge with Kadaster
- One stop shop < 2010
  - digger reports to Kadaster
  - Kadaster routes request to
    network providers
  - Kadaster collects information and
    send to requester
Two other overall items

- INSPIRE
- Stimulation Programme

Geoinformation
Government to facilitate electronic legal and economic transactions

- Digital Identity for secure transactions
- SMS authentication
- Public Key infrastructure
- Personal- and Business Unique numbers
- Information portal for citizens
- Administration of key electronic government services
Datasuppliers to organize availability and access to quality information

- Electronic Conveyancing
- Country wide deed register
- Country wide register of names of owners
- Kadaster-on-Line and MyKadaster
- EULIS
- 24 hours presence
- One stop shop for subsurface information
- Making Key registers work (‘Veluwe initiative’)
- e-services
- e-mail billing
- Top10NL database
- Terz@ke
- Administration of land administration activity
Electronic Lodging

- Possible since September 2005
- Now: 90% notaries use the system for 75% of the total input of deeds
- Problem: mandate of notaries to draw up deeds as they like best
- Now under discussion: standard model as an annex (covenant 13 December 2006)
- Makes automated updating of databases possible.
Administration Land Administration Activity

- Market Pull
- Technology Push
- Virtual organisation?
- Developments
- Multi Year Policy Plan
Kadaster information hub in eGovernment

- Key register cadastre
- Key register topography
- Distributor building and address information

(Possible) future tasks:
- Distributor large scale base map
- Distributor planning/zoning information
- Distributor valuation information
- Distributor sub-soil information
Public Private Partnerships

Find your own home
Successful SDI Development - The Netherlands

Example: Combining mapping and real estate information

[Image of a webpage with an aerial view and search bar for real estate information]
Thank You