GeoDesk,

Our local implementation of SDI

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Wageningen UR - GeoDesk

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Spatial Data Infrastructure

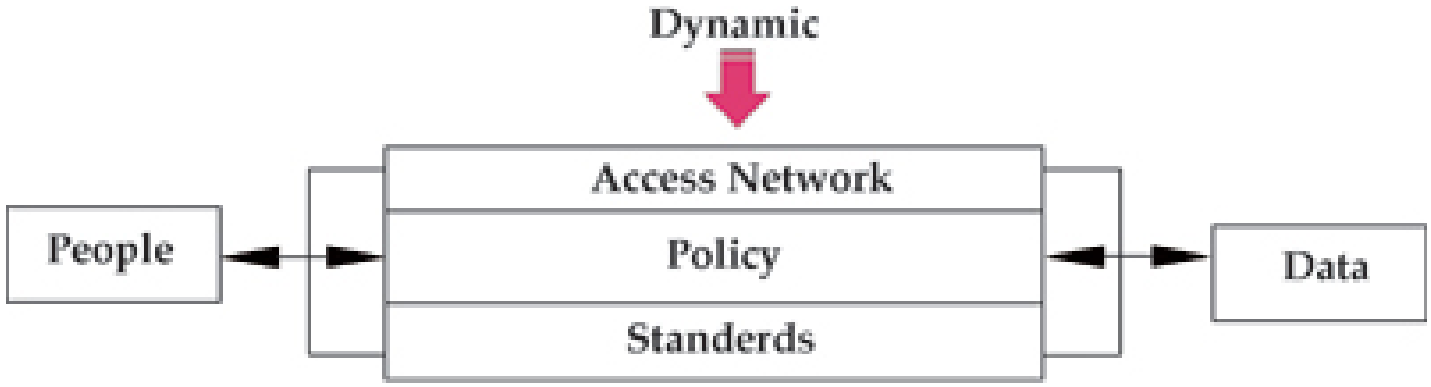


Fig 1: SDI components (adopted from Rajabifard et al., 2002)

Topics:

- What is GeoDesk
- Access via facilities: local SDI structure
- Local facilities
- Policy aspects

What is GeoDesk ?

Part of Centre for Geo-information (CGI), to provide :

- Geo-software (GIS, RS) to students & researchers / staff
- Alterra data collection management + access to researchers
- User support
  - help: Software questions, Spatial data consultancy
  - info: GeoDesk Newsletter, User Forum Website
- Sales of WUR data products: datasets, data services, dataprints
- Innovation: Open Data Strategy, Sensors,

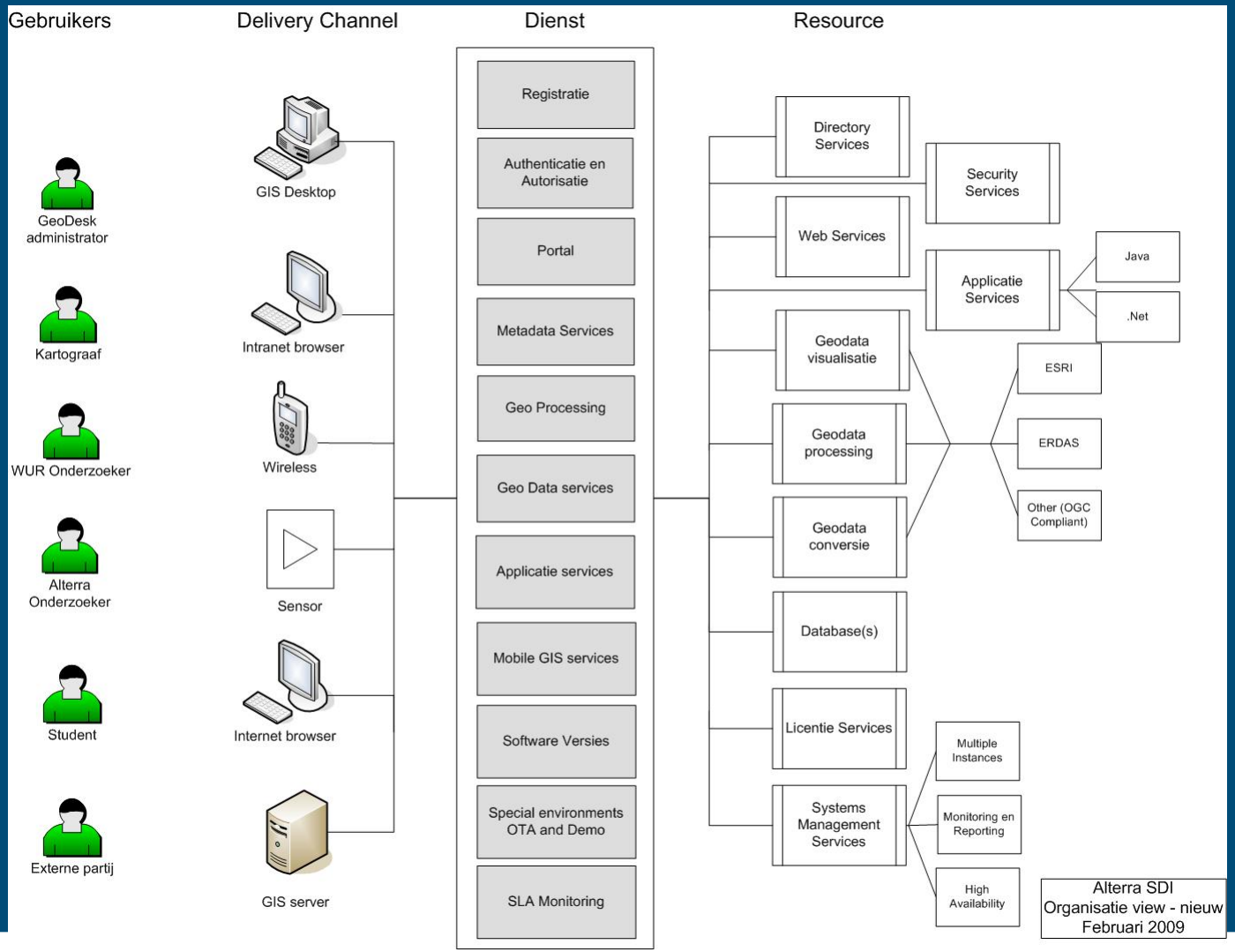
Organisational: bi-polar unit within CGI:

• Wageningen University, Stichting DLO - Alterra

Access via facilities

- Context: local network (WURnet)
- Facility: operational combination of SDI components
  - Front office: user contacts
    - helpdesk, newsletter, courses, websites, file directories, services (WMS)
  - Back office: management & maintenance
    - databases: data+metadata, catalog
    - licenses for software use, data access rights
    - servers for database, services, license management
    - storage for databases, files, images, documentation, procedures, ...
    - using standards + directives: ISO, OGC, W3C, Inspire (EU) , NORA (NL), ...

User requirements



SDI Facilities

1. User support
2. Repository for software & data
3. Geodatabase
4. Metadata editor
5. Data Catalogue
6. Web map services

SDI components of facilities

Order of component importance for handling requests:

- Data: theme-location-time? / software: which?
- People:
  - requester: organizational status?
  - GeoDesk staff: who can deal with request /question?
- Policy: conditions for access, availability, support
- Network:
  - technical: determines material solution (db-connection, download)
  - organizational / social: get specialist info or make referrals
- Standards: basis for construction & maintenance

facility 3 - Geodatabase

= management, back office activity

Geodatabase contents:

about 450 Datasets (most regarding NL)

1600 Gb available storage space, 900 Gb used

- National Topography (1:10k, 50k, 250k): 420 Gb
- Aerial Photographs (2003, 2006): 365 Gb

Challenge: get metadata from the data makers

facility 4 - Metadata

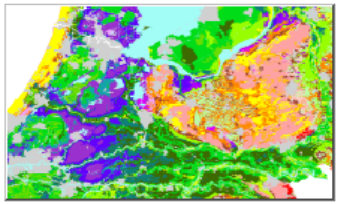
= management, back office activity

Metadata: description of datasets

- Contents Standard: ISO 19115 (NL profile: limited set)
- Technical Standard: ISO 19139
  - Format : .xml for contents , .xsl for presentation style
- sw: Metadata Editor (for ArcCatalog) for reading & describing
  - Geosticker editor
  - Geosticker stylesheet

f.4: Metadata example

Identificatie | Contacten | Metametadata | Dekking | Kwaliteit | Inhoud | Distributie



Bodem opbouw (Pawn), versie 1, 2006

Alternatieve titel: BODEM.Pawn_2006
Versie: 1
Samenvatting: Het bestand geeft informatie over de bodem-fysische gelaagdheid in het bodemprofiel tot ca. 1.20 meter diepte. Er worden 23 verschillende eenheden onderscheiden. Elke eenheid representeert een bodemprofiel met een specifieke gelaagdheid. Aan de afzonderlijke bodemlagen in het bodemprofiel kunnen bodemfysische kenmerken uit de Staringreeks worden gekoppeld. De ligging van deze eenheden is afgeleid van de Bodemkaart van Nederland, schaal 1 : 50 000. Hiervoor zijn de eenheden van de bodemkaart geclusterd naar de 23 verschillende bodem-fysische eenheden. De indeling is in 1985 aanvankelijk ontwikkeld op basis van de eenheden van de Bodemkaart van Nederland, schaal 1 : 250 000 voor de z.g.n. PAWN-studies (Policy Analysis for the Watermanagement of the Netherlands)
Potentieel gebruik: Modelberekeningen; Landelijke en regionale gebiedstudies waarbij globale bodemkundige informatie nodig is. Vanwege de compactheid en overzichtelijkheid van de indeling is deze bodemfysische schematisatie al voor vele studies toegepast.
Doel van vervaardiging: Hydrologische modelberekeningen in het kader van de PAWN-studie voor de 2e Nota Waterhuishouding. In deze PAWN-studie (Policy Analysis for the Watermangement of the Netherlands) zijn met het hydrologische model DEMGEN berekeninge gemaakt om de waterbehoefte voor de landbouw vast te stellen.
Toepassingsschaal: 1:50000
Trefwoorden:
Hydrologie
Milieu

Aanvullende informatie:
Stibokarapport 2055, Wösten, De Vries, Denneboom en Van Holst. Generalisatie en bodemfysische vertaling van de bodemkaart van Nederland.: x:\bodem\metadata\stiboka_2055.pdf

Gebruiksbeperkingen:
Bronvermelding
Beschikbaar voor derden tegen betaling (en gebruikersovereenkomst)
Overige beperkingen: Copyrighthouder: Alterra

facility 5 – Data Catalog

- Open infrastructure for search & download of geodata via internet browser
- WUR – only (=intranet), Bilingual (NL/EN) interface
- Contains metadata of datasets in Geodatabase (not yet all...)
- 3 Search modes:
  - Thematic - data categories: ISO-INSPIRE
  - Keyword – free text search (metadata is mostly in Dutch...)
  - Space / time
- Metadata contain a link to layer files (downloadable), the layer files contain link to datasets in geodatabase

facility 6 - Map services

- ArcGIS map services inTRAnet (WURnet only)
  - Via web browser http://www.geodata.alterra.nl
  - Via ArcGIS
- ArcGIS map services inTERnet (part of national SDI)
  - E.g. Nationaal Geo-register

GeoDesk and Policy

Policy is the central componen

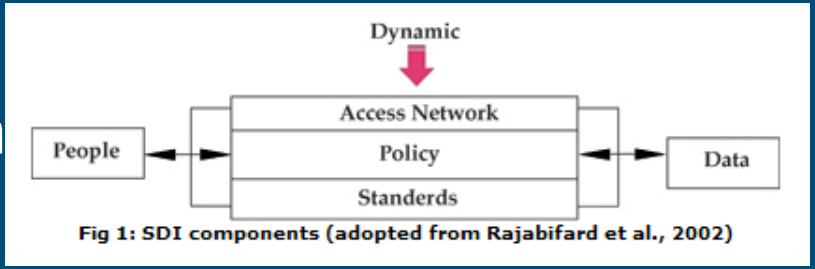


Fig 1: SDI components (adopted from Rajabifard et al., 2002)

Decision subjects per service type:

- Software: Which tools, nr. of licenses, internal distribution
- Data: Which data, quality, access, storage
- Support: Organization, channels, conditions
- Sales: What to sell, pricing, customer types

Policy

- External influences on GeoDesk policy making
  - Financial: cost of tools, ict-matters and datasets
  - Legal: ownership of datasets
  - Standardization: ISO, Inspire, Windows, OGC, W3C, ….
  - Policies of other org.s: Software makers, govts
  - Local org. context: nr. of staff, budget, user types, …
  - Involvement in major projects: data acquisition, software choice, development direction, ….

Thank you

Questions ?

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