



INSPIRE FOSS Workshop

30 maart 2011

kadaster
feitelijk verrassend

Inhoudsopgave



- Doel van de workshop
- Theoretische Achtergrond
- Opzetten Tools - ***InspireFossBox***
- Hands-on

Doelstellingen

- Overbrengen aanpak INSPIRE
- Uitleg opzet INSPIRE FOSS project
- Hands-on ervaring opdoen met transformaties en web services
- Startpunt voor vervolg

INSPIRE FOSS Project - Doel

- Bundelen kennis/best practices INSPIRE
- Nadruk op code sharing
- Hergebruik ETL en services
- Meerdere soorten oplossingen/tools
- Open voor participatie nationaal/internationaal
- Community opbouwen
 - mailing list: <http://groups.google.com/group/inspire-foss-devel>

<http://inspire-foss.org>

INSPIRE FOSS Project - Functionaliteiten

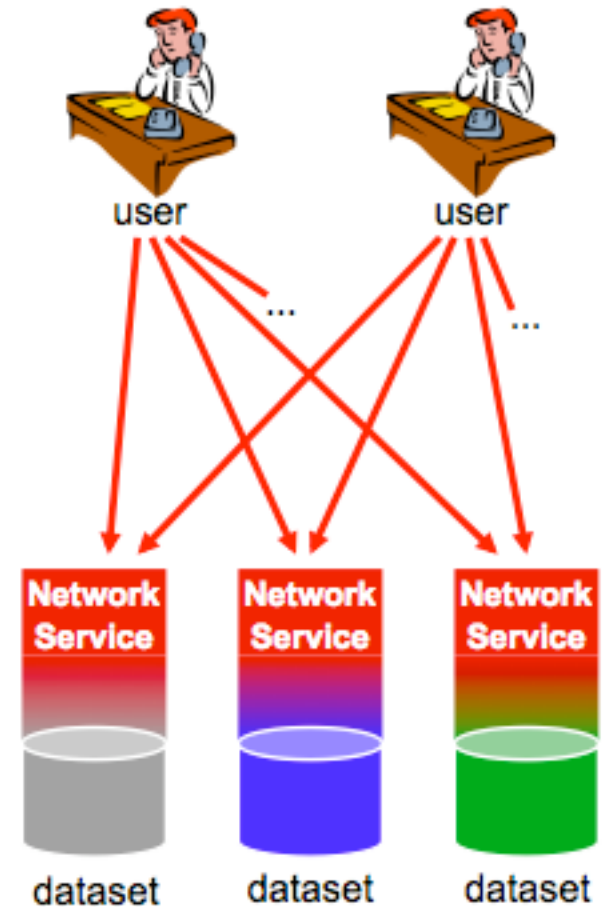
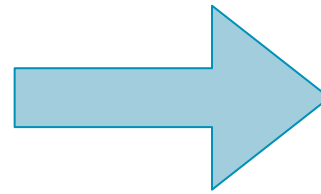
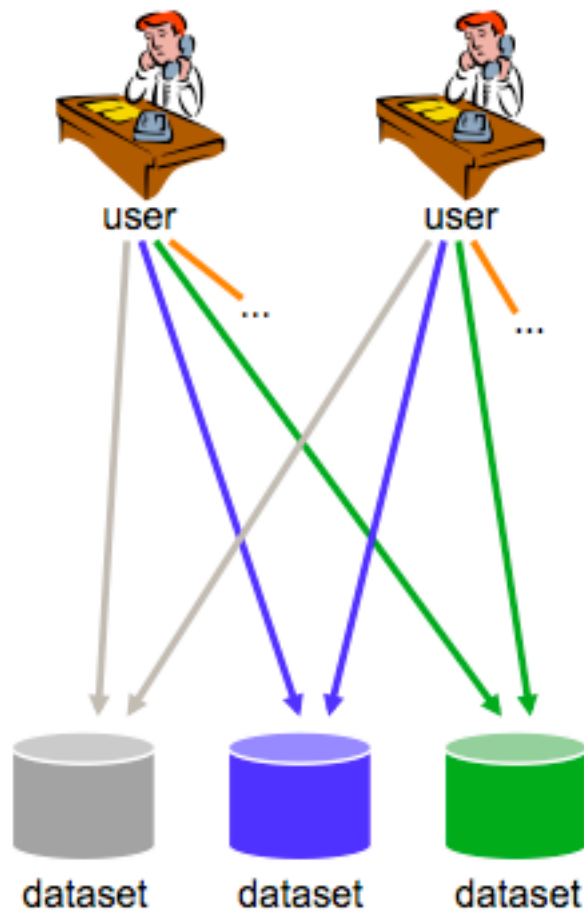
- Data extractie
- Model en coördinaat transformatie
- Opslag (database)
- Network (web) services (WMS/WFS)
- Data visualisatie

<http://inspire-foss.org>

INSPIRE in een notedop

- Specificatie voor een EU-brede SDI
 - web services
 - data
 - metadata

INSPIRE - Doel



bron: Geonovum

INSPIRE - Hoe



Achtergrond - INSPIRE - Data Thema's

Annex I

1. **Coordinate reference systems**
2. *Geographical grid systems*
3. **Geographical names**
4. **Administrative units**
5. **Addresses**
6. **Cadastral parcels**
7. *Transport networks*
8. *Hydrography*
9. Protected sites

Annex II

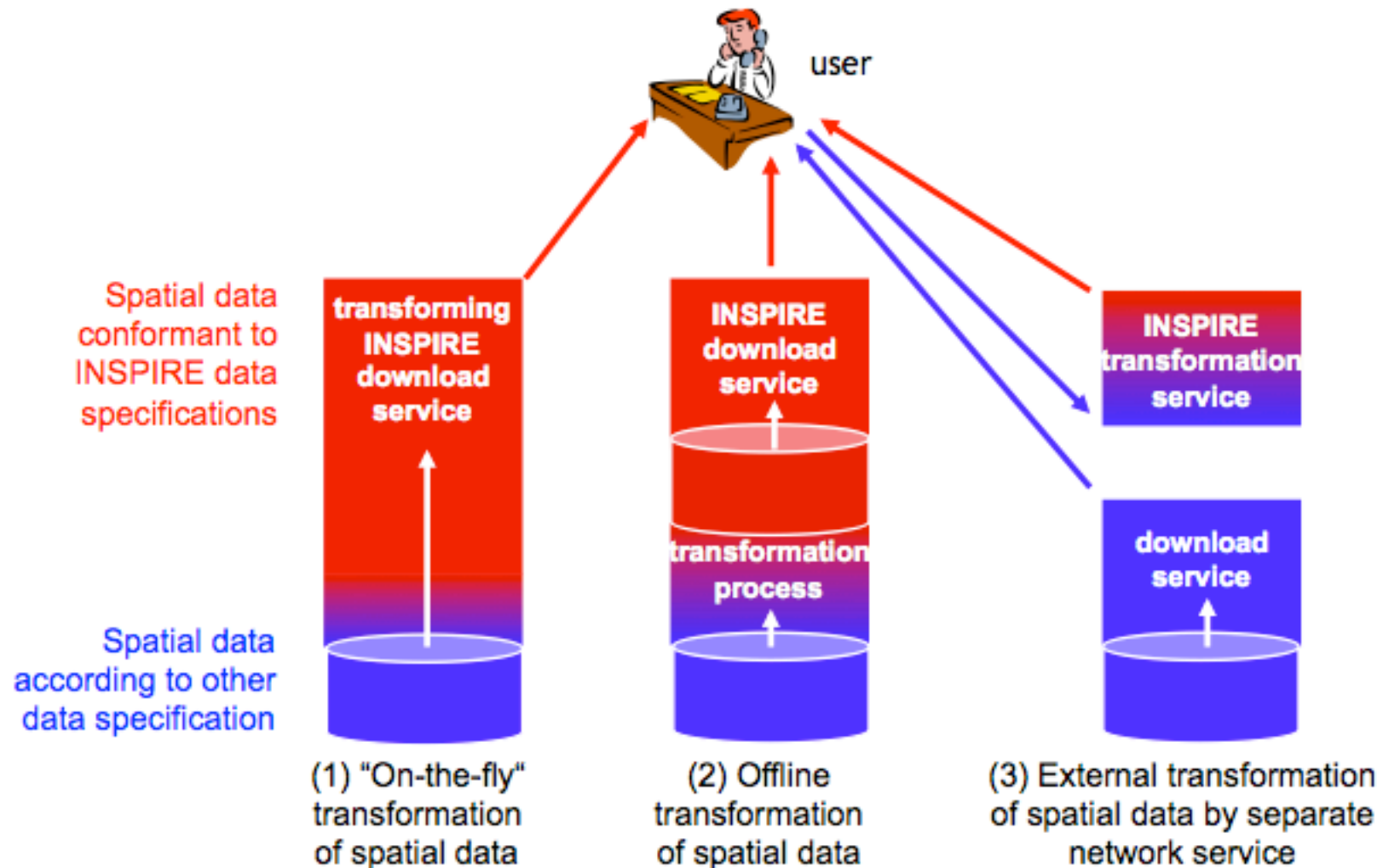
1. Elevation
2. Land cover
3. *Orthoimagery*
4. Geology

Annex III

1. Statistical units
2. **Buildings**
3. Soil
4. **Land use**
5. Human health and safety
6. **Utility and governmental services**
7. Environmental monitoring facilities
8. Production and industrial facilities
9. Agricultural and aquaculture facilities
10. Population distribution - demography
11. **Area management/restriction/regulation zones and reporting units**
12. Natural risk zones
13. Atmospheric conditions
14. Meteorological geographical features
15. Oceanographic geographical features
16. Sea regions
17. Bio-geographical regions
18. Habitats and biotopes
19. Species distribution
20. Energy resources
21. Mineral resources

	3 December 2010	9 May / 9 November 2011	2012	2013	2015
Publish Metadata	Annex I en II Datasets	Discovery and View services	Transformation and Download services	Annex III Datasets	
Implement Webservices		Discovery and View services	Transformation and Download services		
Access nationwide Datasets			Annex I Datasets		Annex II and III Datasets

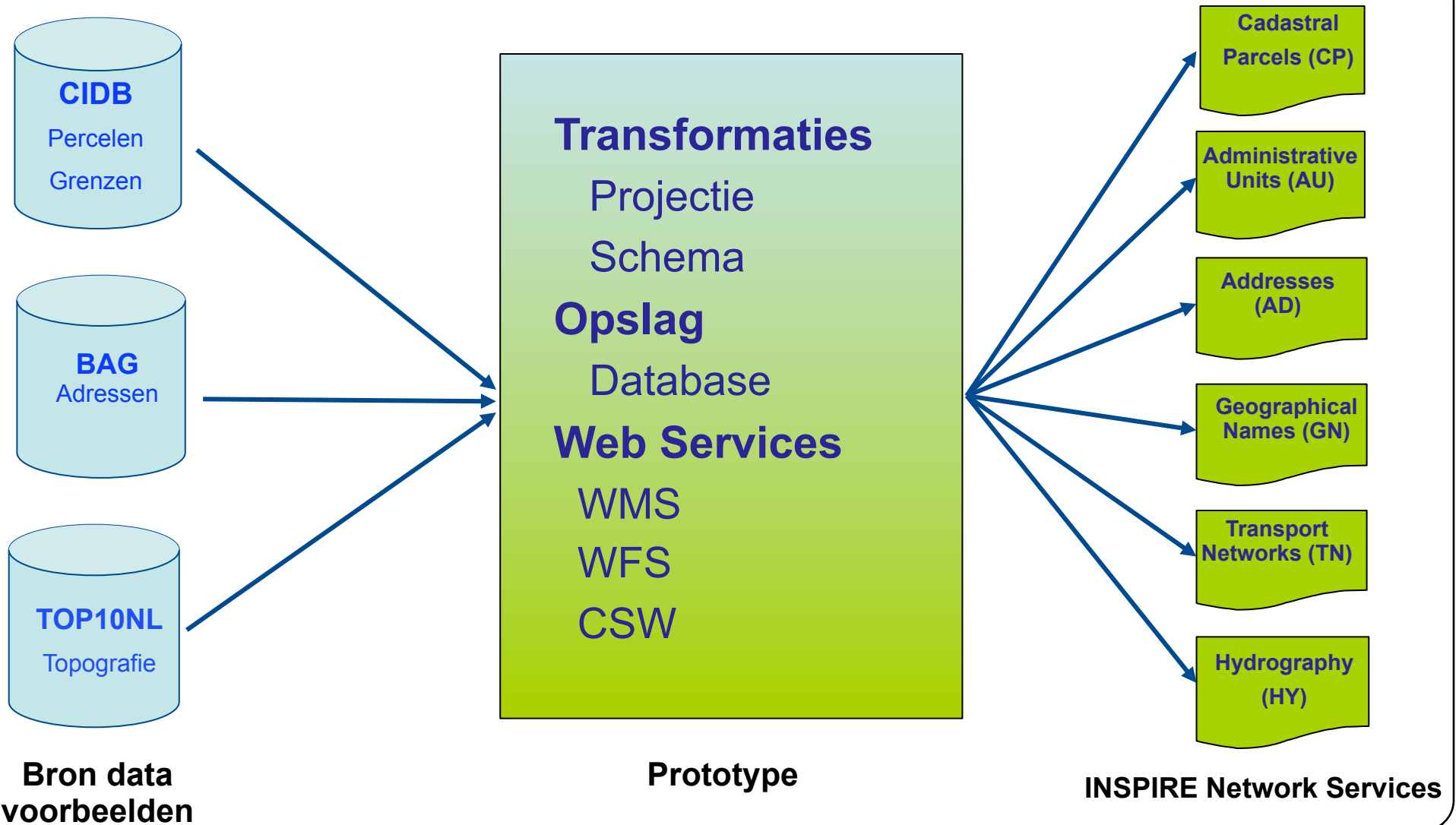
INSPIRE - Transformaties



INSPIRE - Uitdagingen

- Geavanceerde (complexe) standaarden
 - gebaseerd op ISO en OGC
 - complexe GML applicatie schemas (GML 3.2.1)
 - WFS 2.0
 - WMS 1.3 met INSPIRE-specifieke extensies
- Transformeren van (Kadaster) brondata naar INSPIRE
- Standaarden en Tools in voortdurende ontwikkeling

INSPIRE FOSS - Context

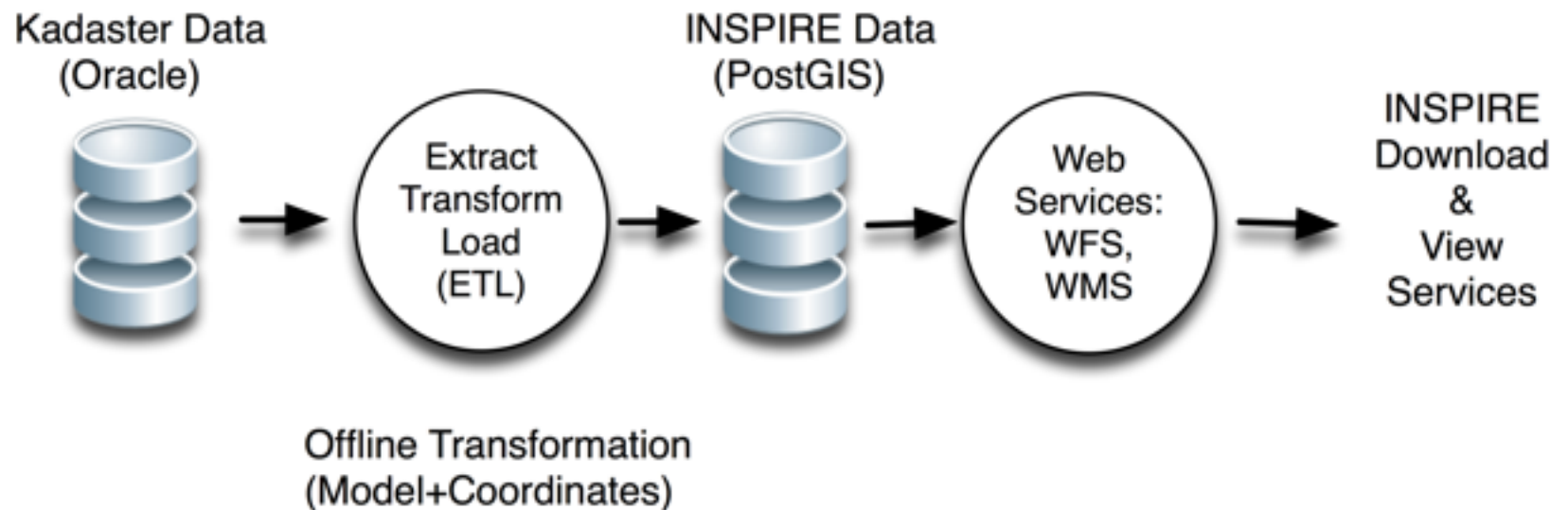


GEORZ-lab en Research

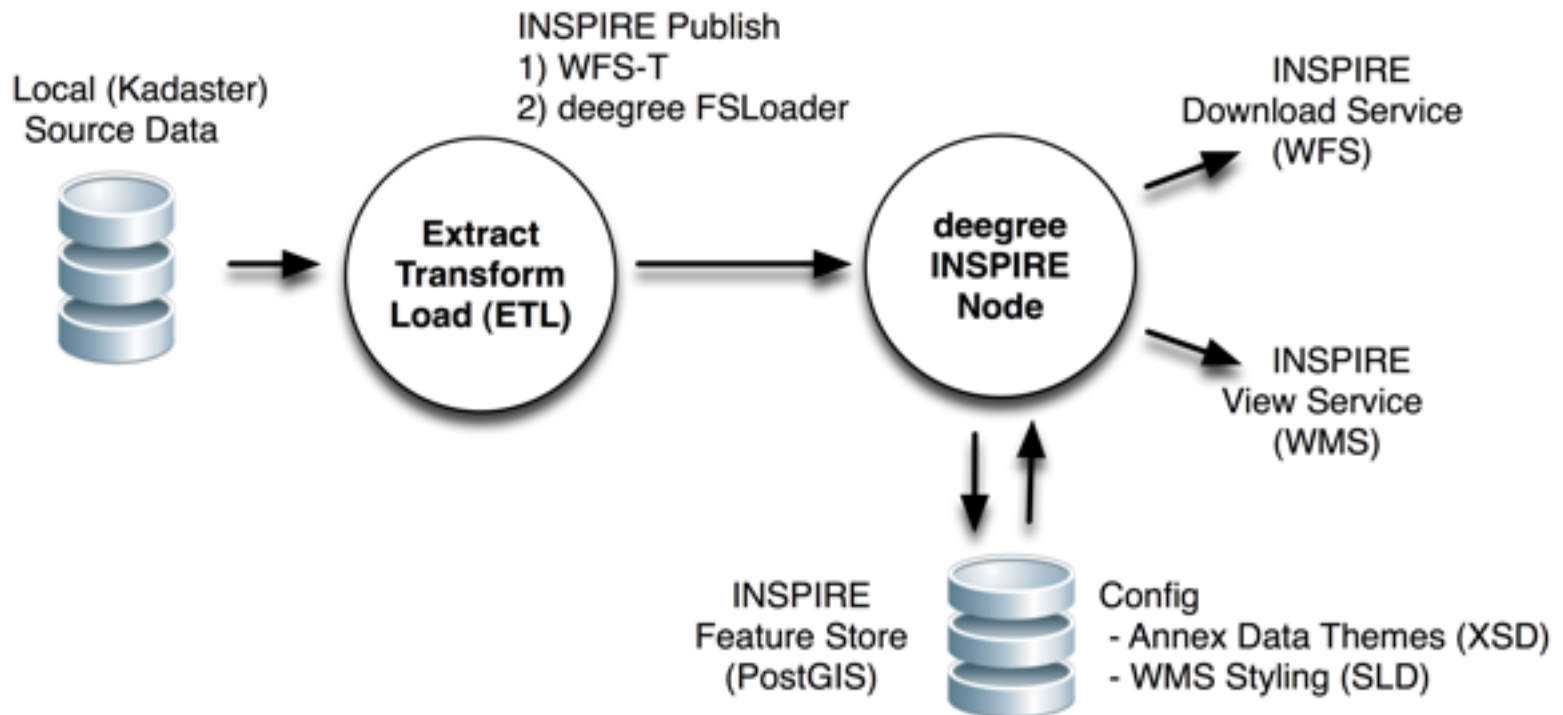
Theorie

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INSPIRE FOSS - Concept



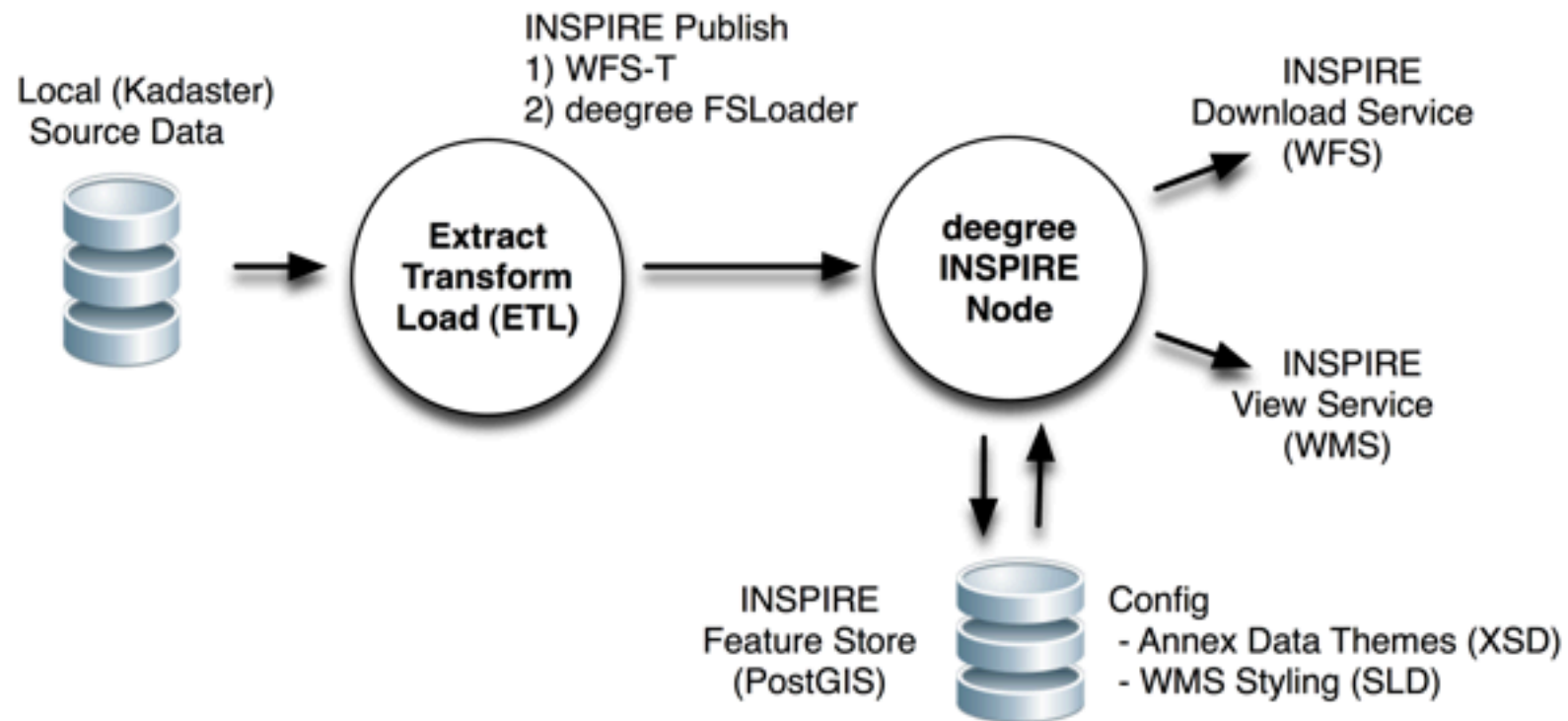
INSPIRE FOSS – Concept Uitwerking



INSPIRE FOSS - Concept - Hergebruik

Specific Transformations

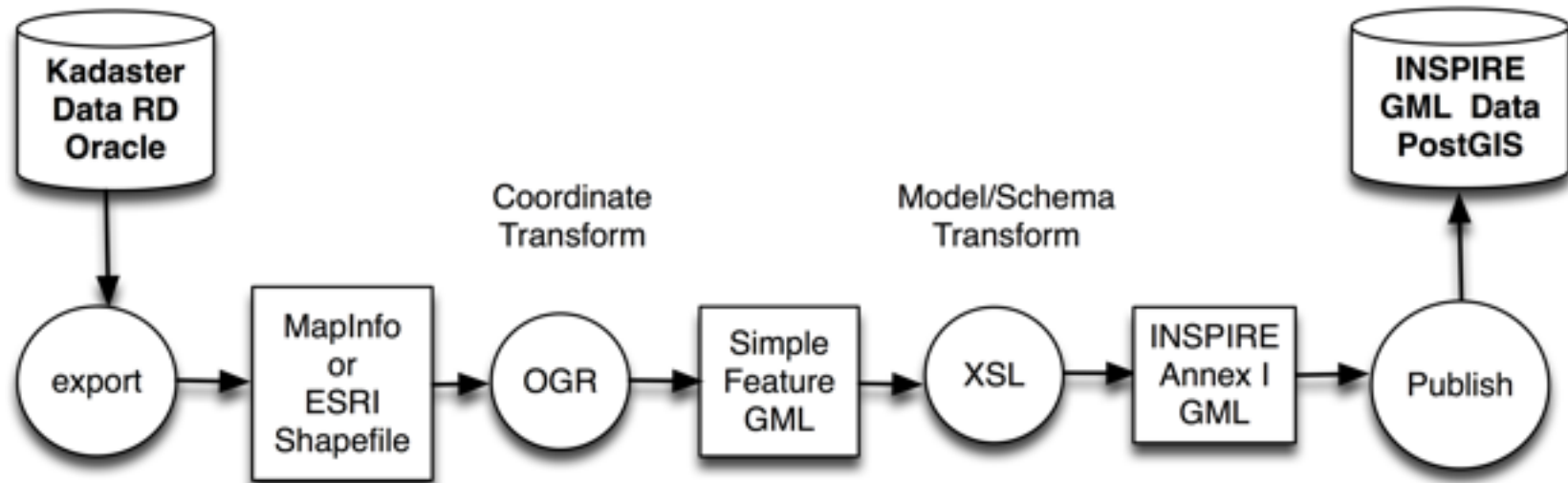
Reusable Transformations & Storage & Web Services



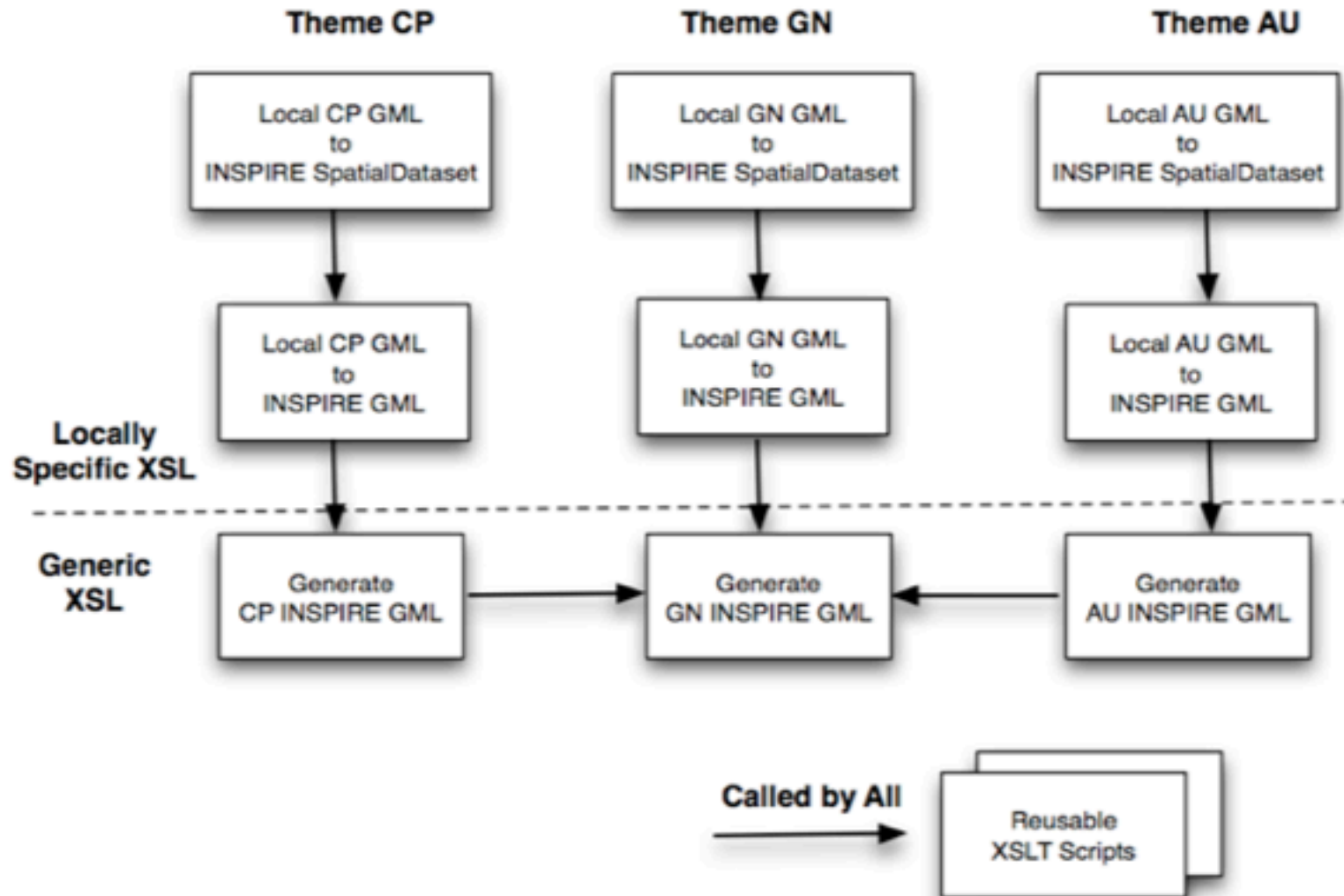
INSPIRE FOSS - Componenten - ETL

- Extractie
 - intern bijv. Oracle naar MapInfo/ESRI Shapefile
- Transformatie
 - GDAL/OGR - www.gdal.org
 - XSLT
 - Unix tools/scripts
- Laden (Publicatie)
 - deegree FeatureStoreLoader (FSLoader)
 - WFS-T

INSPIRE FOSS - ETL Keten



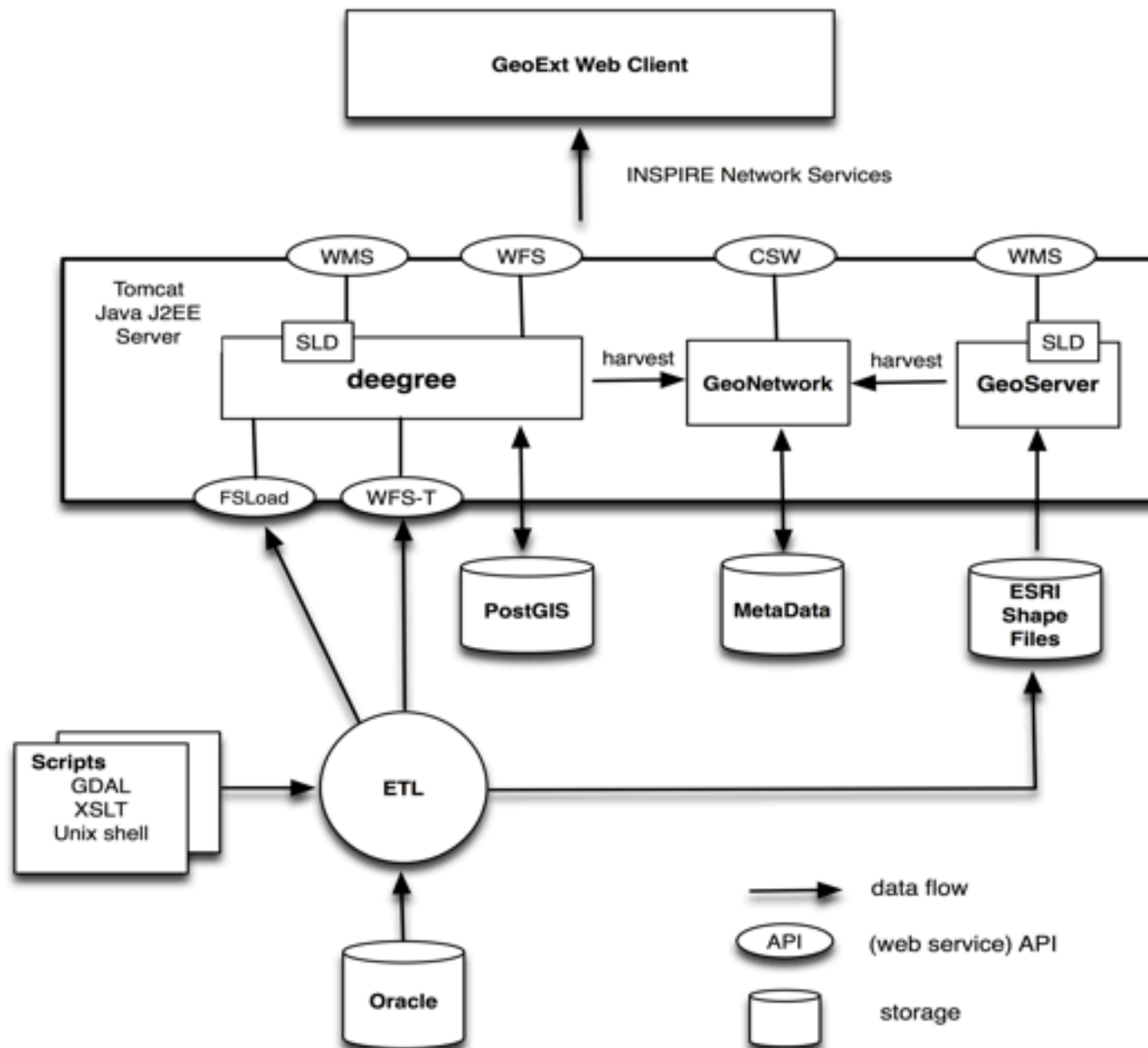
INSPIRE FOSS - XSLT Opzet



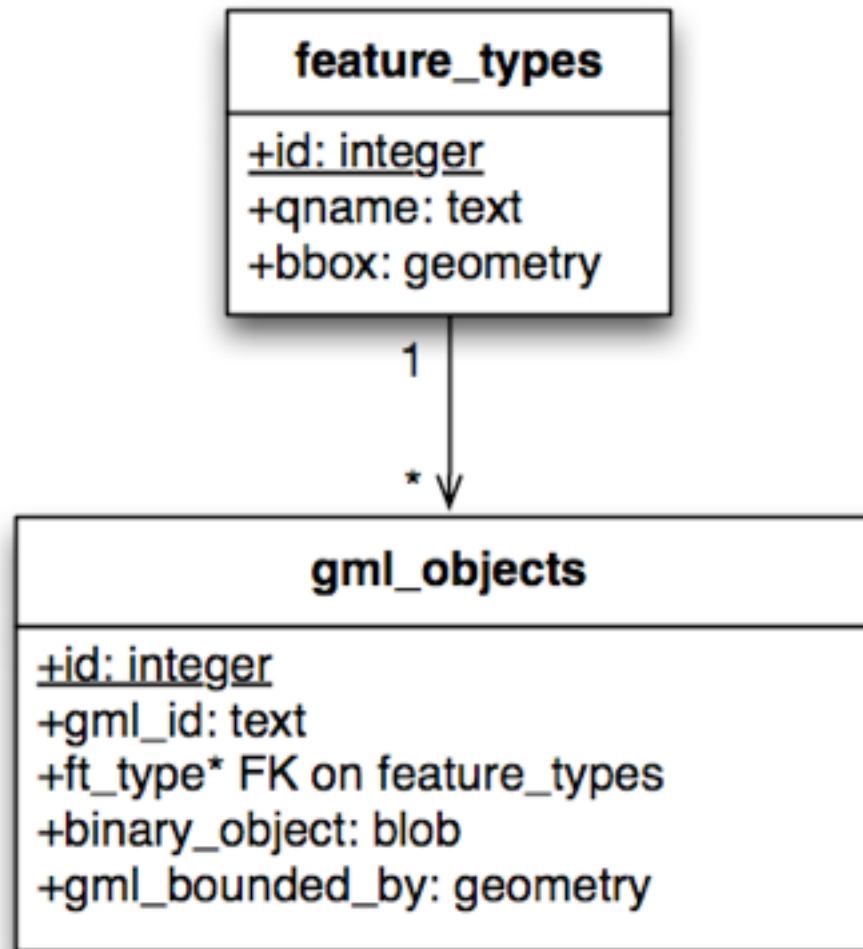
INSPIRE FOSS - Componenten - Services

- Geo services
 - deegree v3 (WMS/WFS)
- Opslag
 - PostgreSQL/PostGIS
 - ESRI Shapefiles (WMS)
- Visualisatie
 - viewer op basis van
<http://code.google.com/p/geoext-viewer/>
 - op basis van GeoExt/Openlayers

INSPIRE FOSS - Voorbeeld Deployment



INSPIRE FOSS - Database



INSPIRE FOSS - Testen en Validatie

- XML/GML Schema Validator
- deegree valideert GML bij import
- ESDIN WP12 Tester (toekomst)

INSPIRE FOSS Project - Links

- Startpagina
 - <http://inspire-foss.org>
- Documentatie
 - <http://code.google.com/p/inspire-foss/w/list>
 - <http://inspire.kademo.nl/doc>
- Code
 - <http://code.google.com/p/inspire-foss>

HANDS-ON



GEORZ-lab en Research

Hands-on

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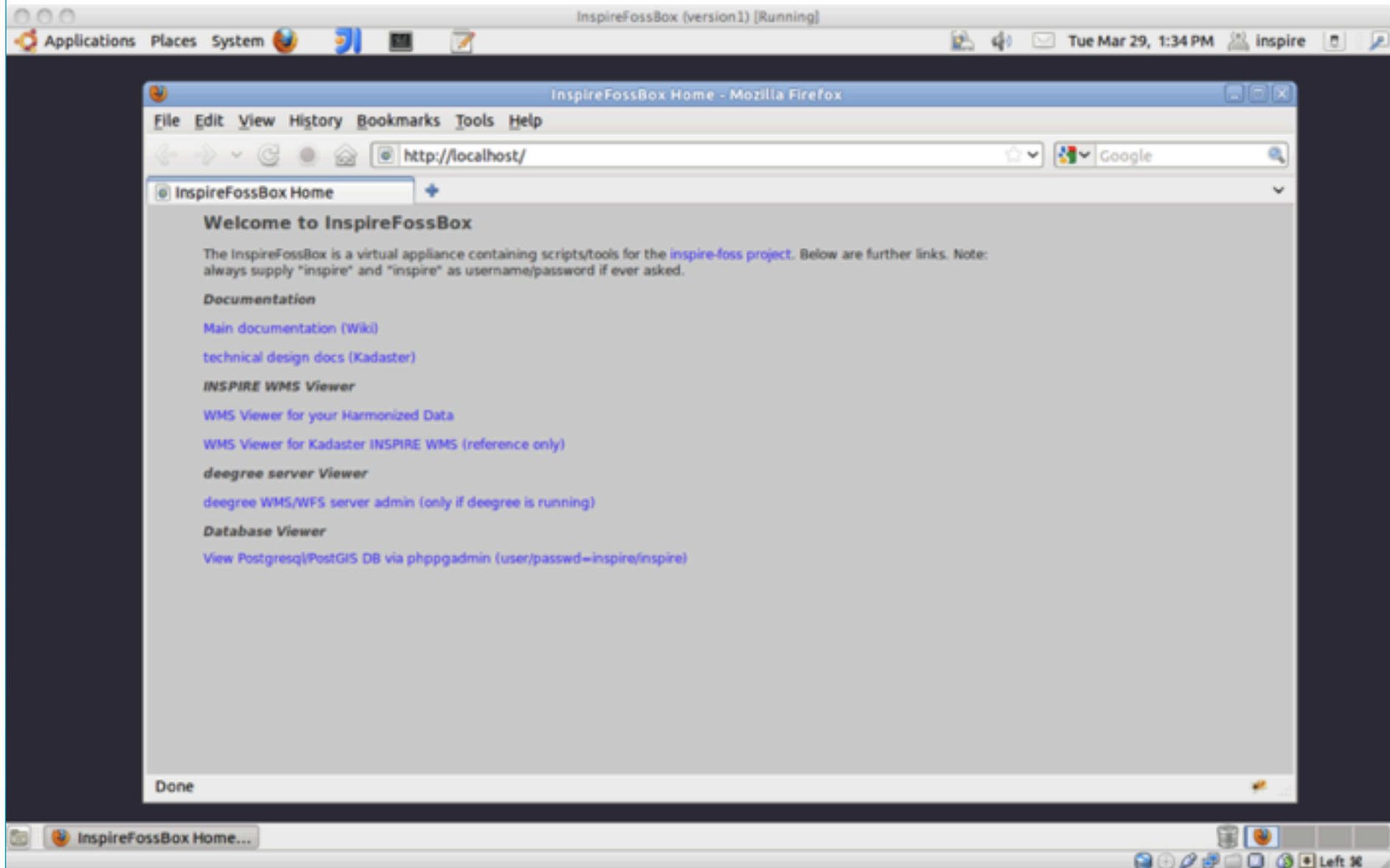
Werkplan

- Installeren VirtualBox+InspireFossBox
- Opstarten + Uitleg tools (IntelliJ)
- Test 1 : Kadaster Administratieve Eenheden
 - transformatie naar GML
 - publiceren GML via FSLoader
 - WFS : deegree3 en GML data bekijken
 - WMS: data bekijken met viewer
- Test 2: als Test1 met RWS NWB
- Test 3: als Test2 met
 - full ETL (A'dam Noord wegen)
- Test 4: uitbreiden transformatie NWB

Installeren VirtualBox + InspireFossBox

- Zie Wiki
 - <http://code.google.com/p/inspire-foss/wiki/InspireFossBoxSetup>
- VirtualBox : virtualization product
- InspireFossBox: virtual appliance

Als alles gelukt is



GEORZ-lab en Research

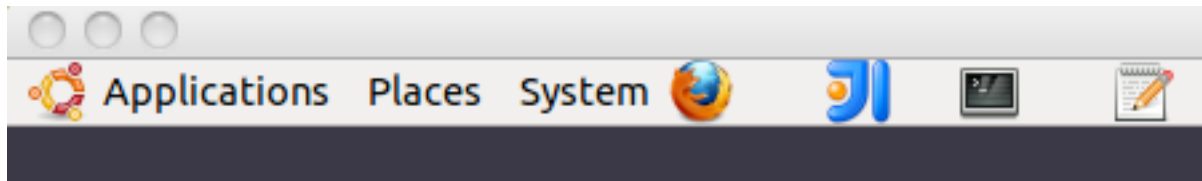
Hands-on

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Opstarten + Uitleg Tools

- IntelliJ: Integrated Development Environment (IDE)
 - <http://www.jetbrains.com/idea/>
- IntelliJ : ontwikkel en testomgeving
- commando's:
 - ETL executeren
 - starten/stoppen deegree WFS/WMS
 - updaten INSPIRE FOSS software uit Subversion

Main Tools in Toolbar



IntelliJ - all starts here



Firefox web browser



Terminal (command line) OPTIONAL

IntelliJ

The screenshot displays the IntelliJ IDEA 10.0.2 interface. The top toolbar includes a red arrow pointing to the 'run deegree' button. The left sidebar shows the 'Project' view with a tree structure of files and folders, including 'deegree3', 'etl', and 'TransportNetworks'. The main editor window displays the XML content of 'wegvakken.gml', which is an OGC GML document. The right sidebar shows the 'Ant Build' view with a list of build targets and tasks. The bottom status bar indicates the current file is 'inspirews - [/home/inspire/inspire/code] - [etl] - .../etl/NL.RWS/TransportNetworks/test/wegvakken.gml - IntelliJ IDEA 10.0.2'.

run deegree

Text

file content

project files

commands

Hands-on

Kadaster

Test 1: Kadaster Administratieve Eenheden

A: ETL

- Bekijk de file
 - etl/NL.Kadaster/AdministrativeUnits/test/gemeente.xml
- Commando: **transform** in Kadaster.ETL.AU.test
- Bekijk de file
 - etl/NL.Kadaster/AdministrativeUnits/test/gemeente-au.xml
- Commando's **clear_database** en **load** in Kadaster.ETL.AU.test

Test 1: Kadaster Administratieve Eenheden

B: WFS/WMS services

- Start deegree
- Ga in browser naar <http://localhost:8080/deegree3>
- login (password: “deegree”)
- do “send requests”
- ga naar <http://localhost/viewer> en vink aan “Administrative Units” | AdministrativeUnit

Deegree kan nu verder blijven draaien

Test 2: RWS Transport Networks Test

A: ETL

- Bekijk de file
 - etl/NL.RWS/TransportNetworks/test/wegvakken.gml
- Commando: **transform** in RWS.ETL.TN.test
- Bekijk de file
 - etl/NL.RWS/TransportNetworks/test/tn-roadnetwork.gml
- Commando's **clear_database** en **load** in RWS.ETL.TN.test

Test 2: RWS Transport Networks Test

B: WFS/WMS services

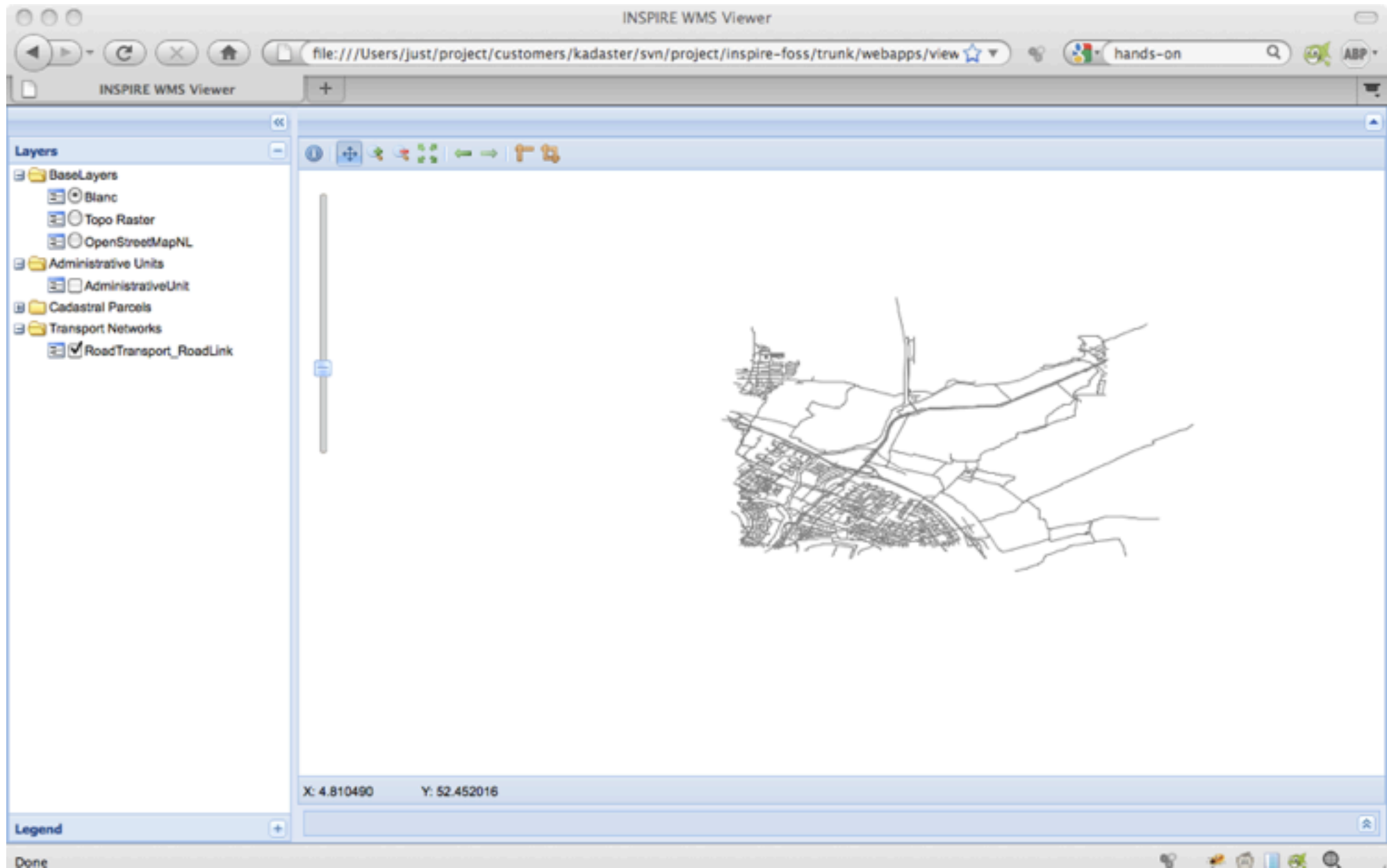
- deegree draait nog
- Ga in browser naar <http://localhost:8080/deegree3>
- login (password: “deegree”)
- do “send requests”
- ga naar <http://localhost/viewer> en vink aan:
“Transport Networks” | RoadTransport_RoadLink
- Zoom naar A'dam noord (doe evt Blanco achtergrondkaart)

Test 3: RWS Transport Networks Full

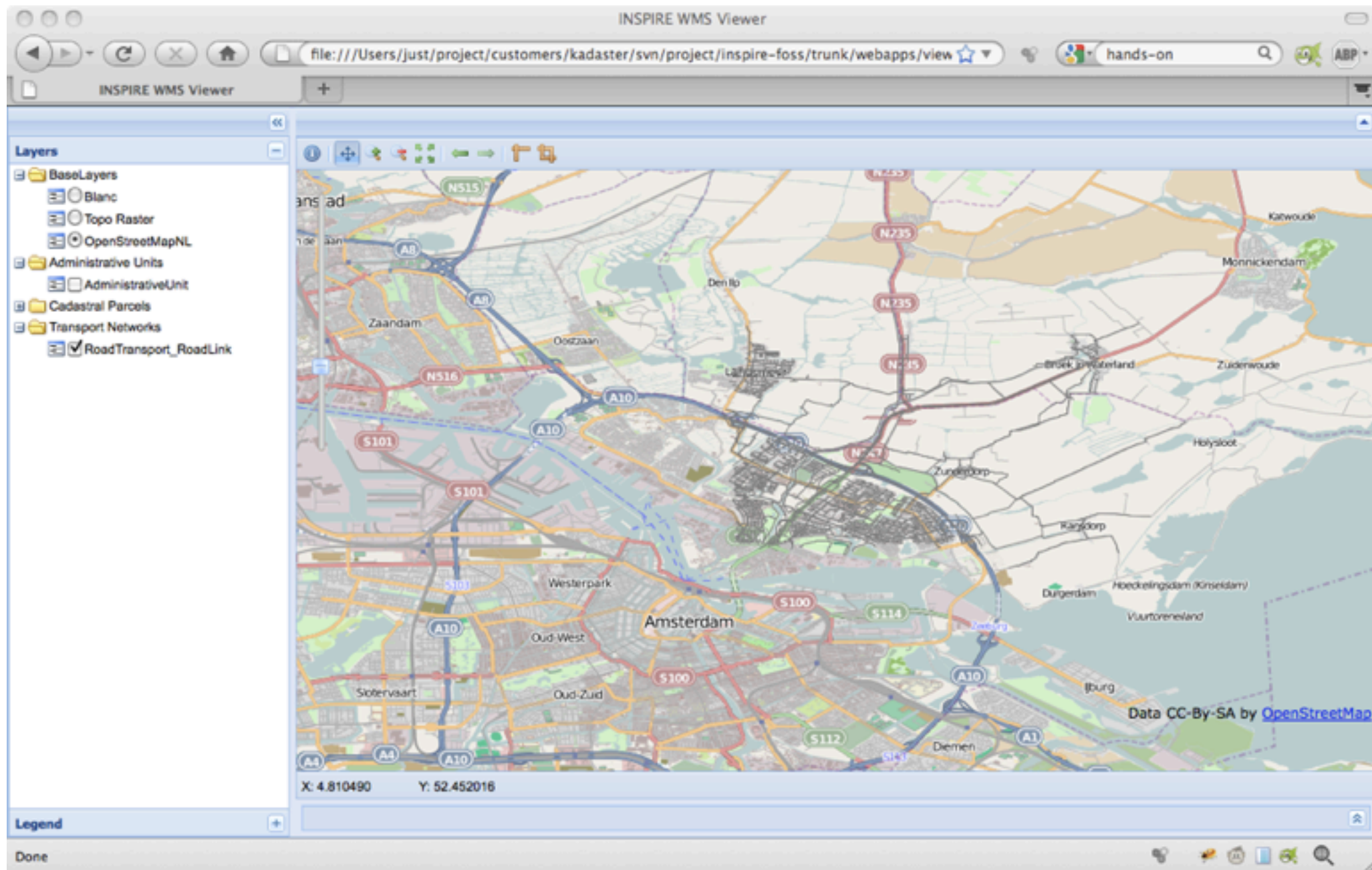
ETL + web services

- Commando's: **clear_database** en **etl** in RWS.ETL.TN
- deegree draait nog
- Ga in browser naar <http://localhost:8080/deegree3>
- login (password: "deegree")
- do "send requests"
- ga naar <http://localhost/viewer> en vink aan:
"Transport Networks" | RoadTransport_RoadLink
- Zoom naar A'dam noord (doe evt Blanco achtergrondkaart)

NWB als INSPIRE RoadLink in WMS Viewer



NWB als INSPIRE RoadLink in WMS Viewer (OSM)



Test 4: Uitbreiden Transformatie NWB Advanced/Optioneel

- Bekijk de files
 - etl/NL.RWS/TransportNetworks/test/wegvakken.gml
 - etl/shared/xsl/annex1/RoadTransportNetwork.xsl
- Kijk wat nodig is om de transformatie uit te breiden, bijv.
 - datum/tijd velden
 - topologie

