

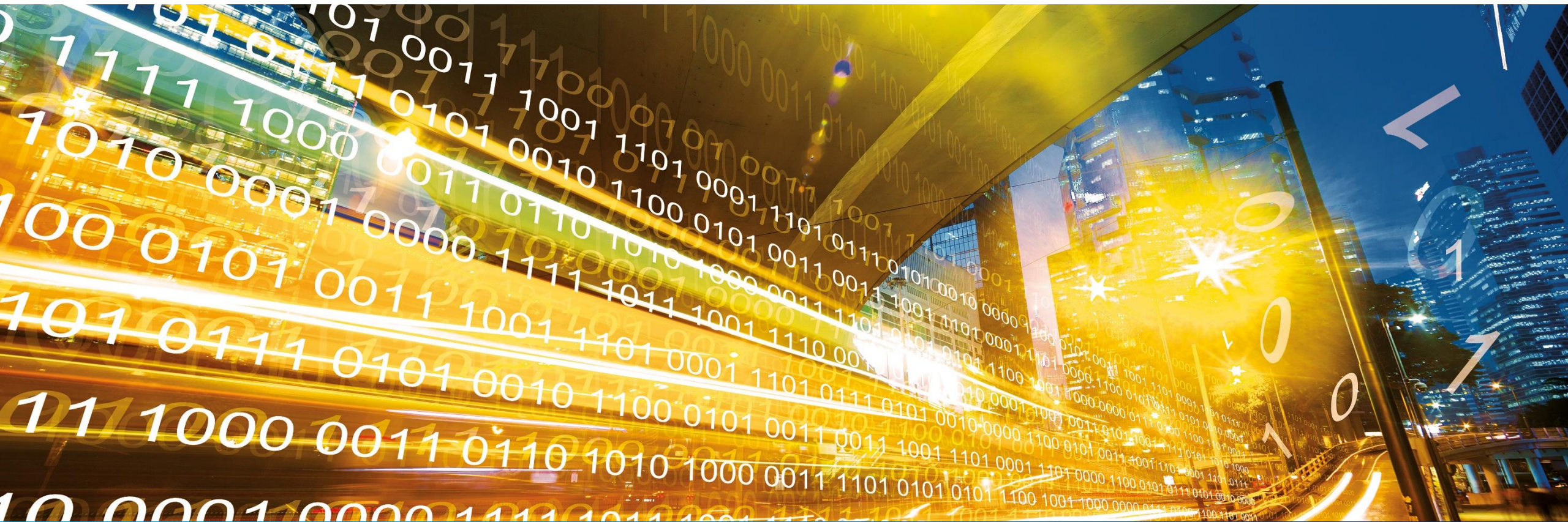


Kartverket

Model driven architecture, WFS and WFS-T at the Norwegian Mapping Authority

Jornadas SIG Libre – Girona 1 – 2 Junio 2017

www.karteverket.no



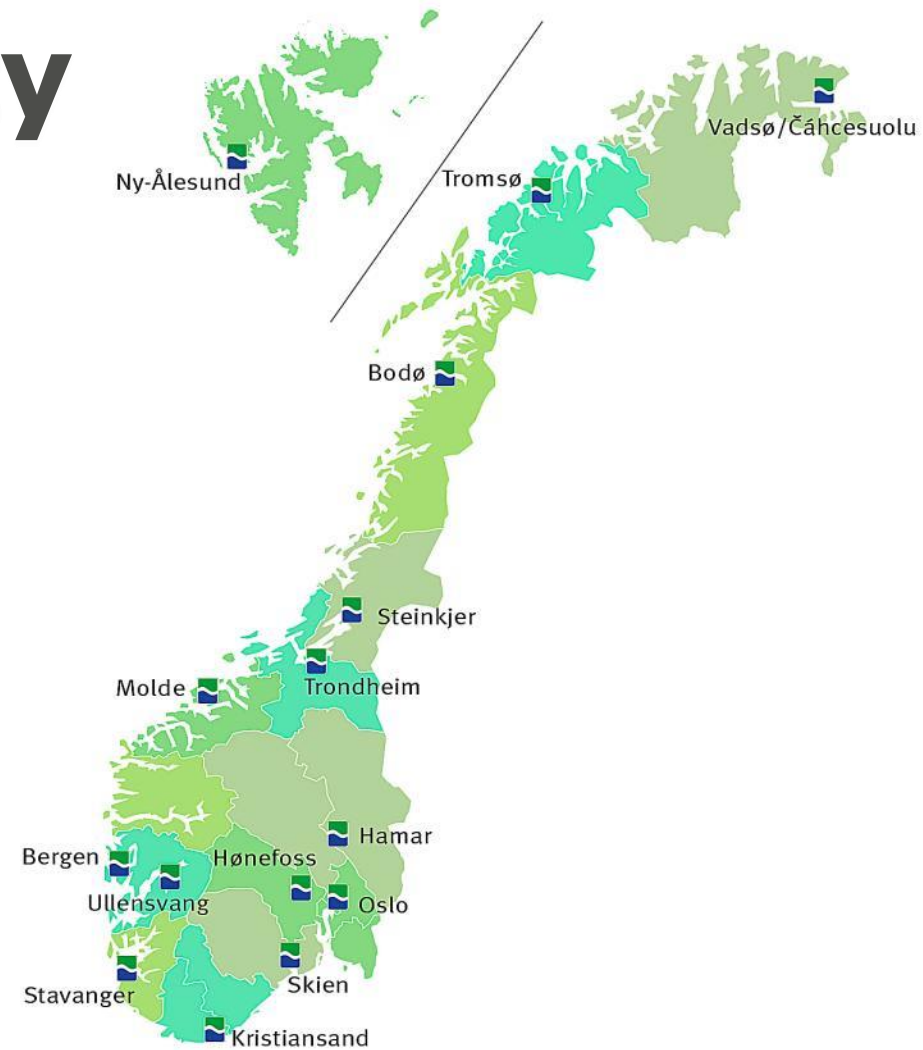
National responsibilities

- Responsibility for National cartography
- Responsibility for Cadastral registration
- Responsibility for Property information
- Responsibility for Navigational Charts
- Reports to the Ministry of Local Government and Modernisation
- Established in 1773



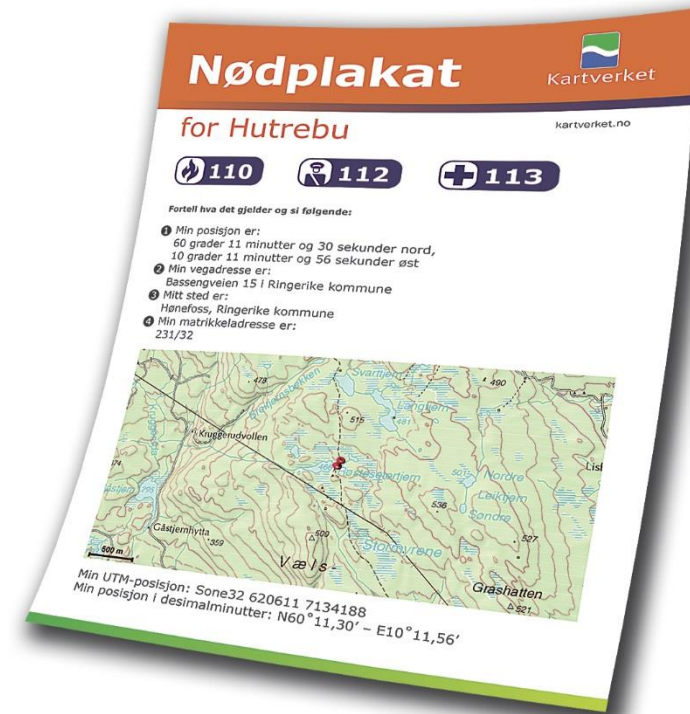
The Norwegian Mapping Authority

- 15 national locations
- 850 staff



For the Benefit of Society

- Security and preparedness on land and at sea
- Improved vehicle navigation
- Ensure property rights and a well-functioning property market
- Improved public planning



Main Tasks

Collect



Manage



Distribute



Ensure that data is used..

Model Driven Architecture

- Separate design and implementation
- Defines system functionality using a platform-independent model (PIM)
- PIM as a central point



Model as a Central Point



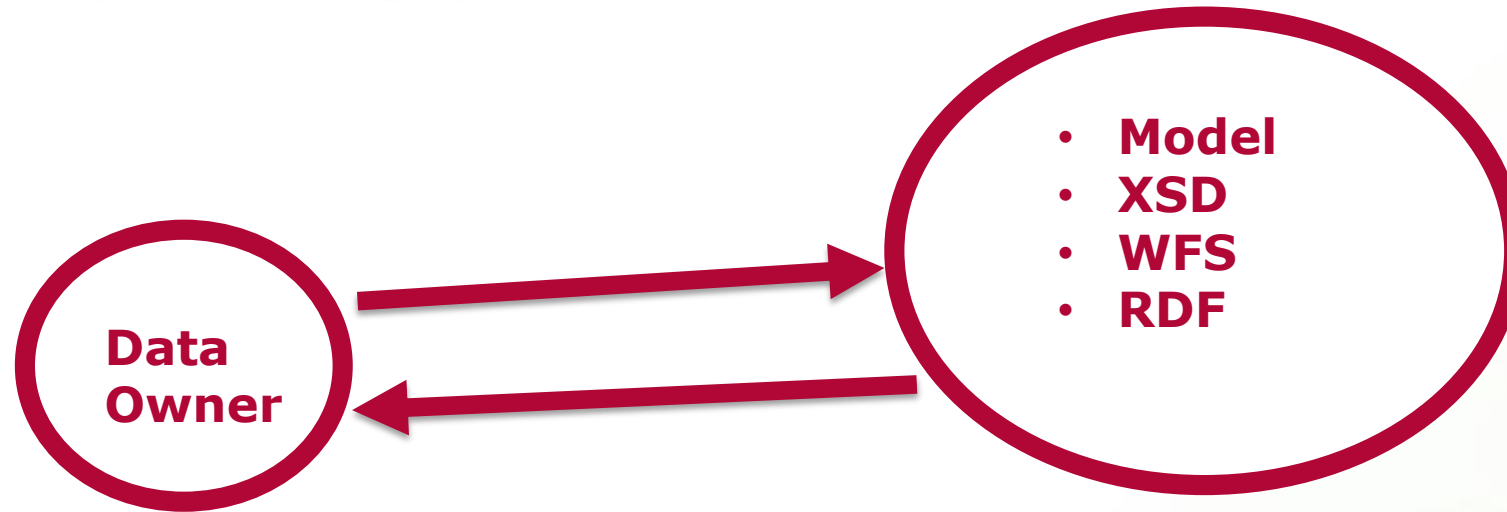
From the model to...

- **XSD**
- **DB**
- **WFS**
- **WMS**
- **RDF**



Test and Prod

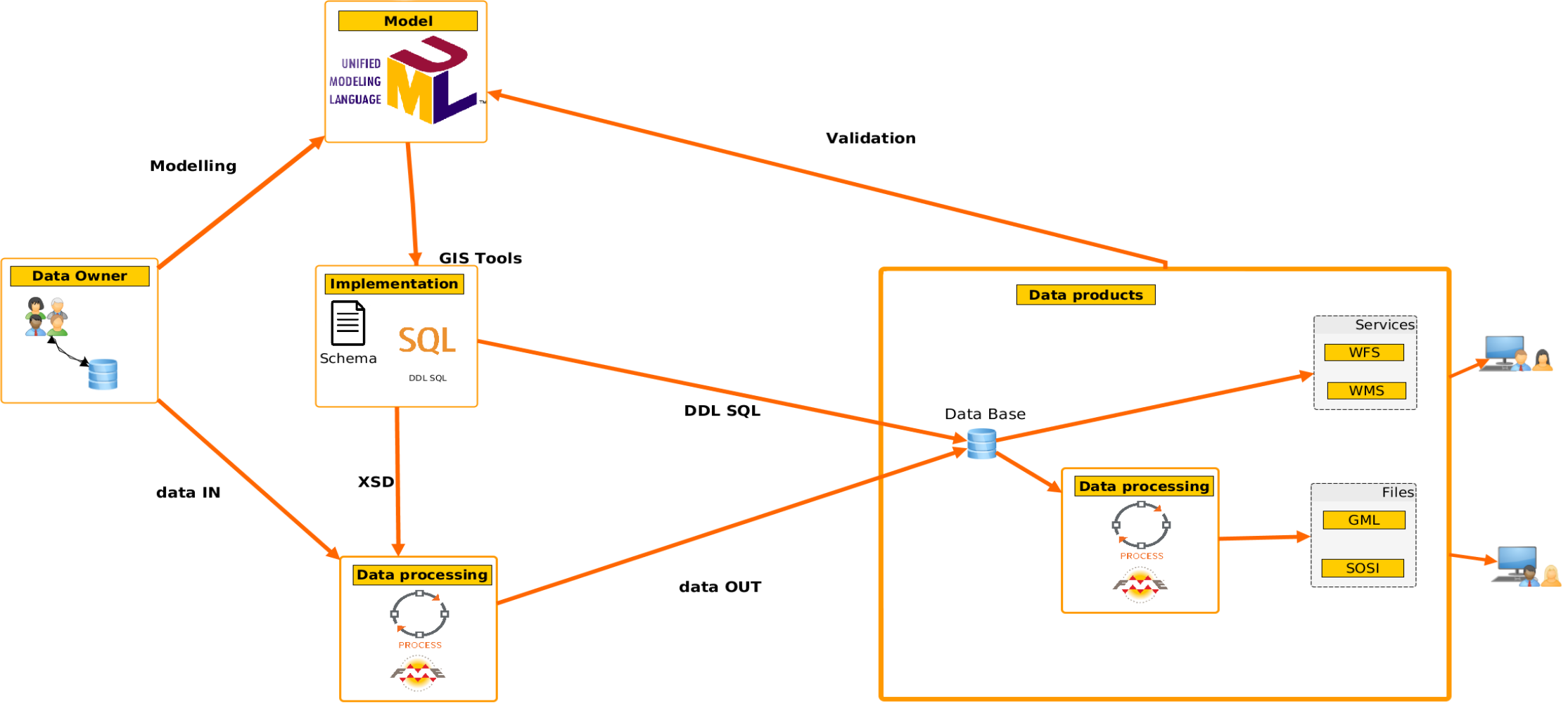
Test



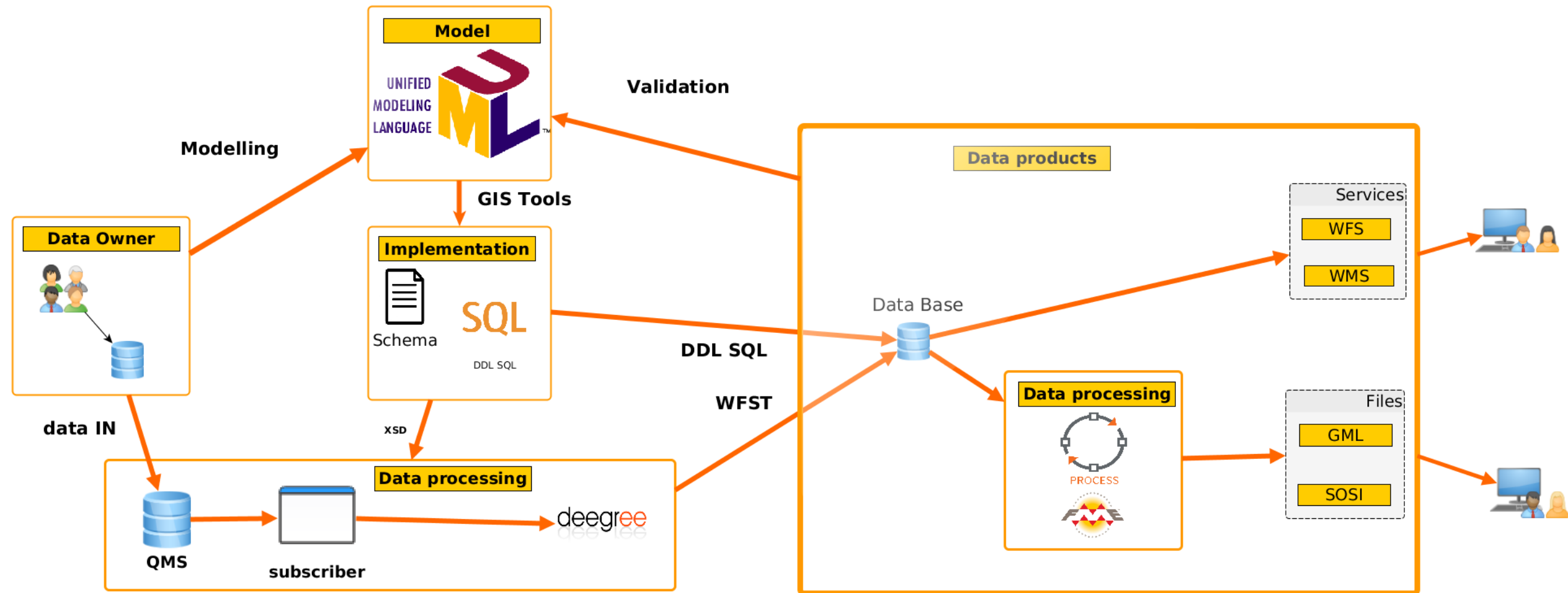
Prod

- Model
- XSD
- WFS
- RDF

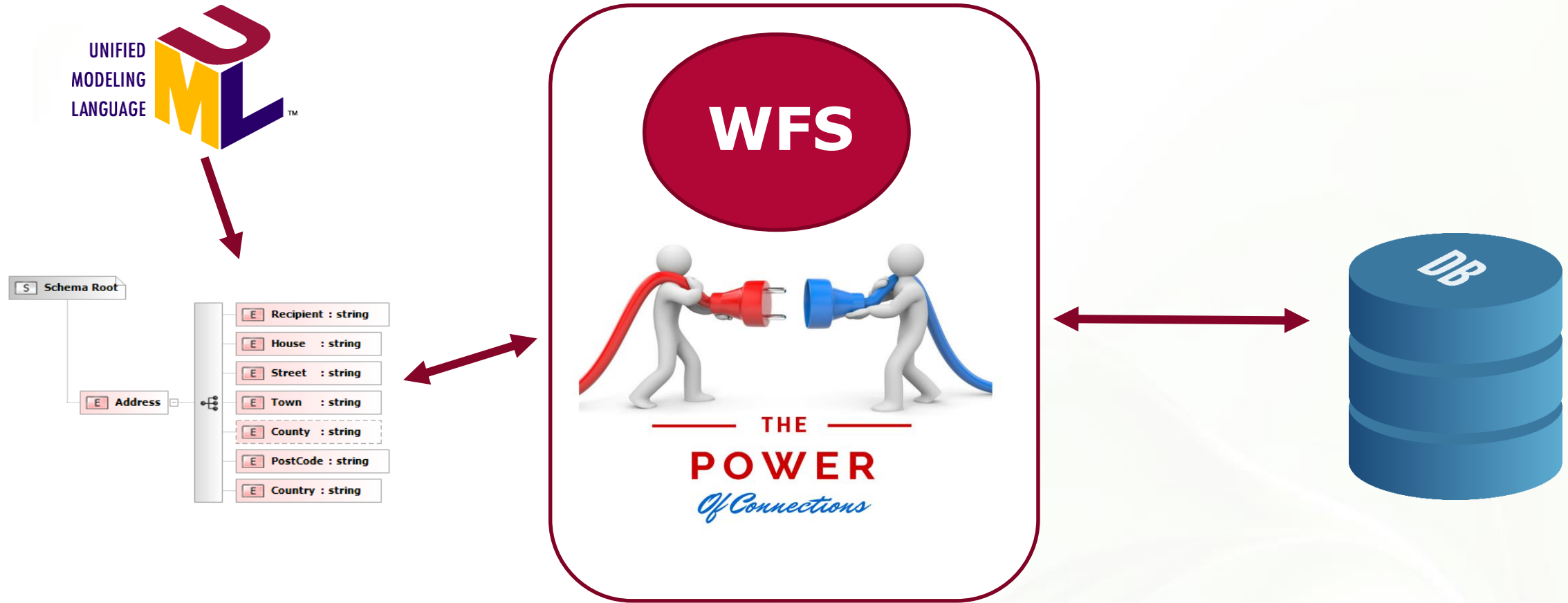
Model Driven Architecture in Geonorge



Model Driven Architecture in GEO Synchronization



Mapping file XSD - DB



GIS TOOLS

Modeling - Extensions

Shape Change

GIS Tools

PostGIS - Create database

Export SQL-script to file
 Export SQL-script and execute in database

Use SOSI-navn in database
 Create changelog for publisher (Geosynkronisering)
 Create subscriber infrastructure (Geosynkronisering)
 Create database constraints

Transliterate characters: æ=>e, ø=>o, å=>a

Set coordinate system

Filter on projection: All UTM NTM Other

Filter on vertical system: All NN2000 NN54 None (2D)

Coord. systems (114): EUREF89 UTM sone 33, 2d

Validate model

Geometry datatypes: Allow Z values
 Replace all geometry types with {0}

Datatype for primary key: serial - integer med autogenerering

Datatype for local-id: text

Database settings

Hostname: nnrdb504
Port: 5432
Database: geonor01st
Username: fkb
Password:
Schema:

Help

Generate
Close

ShapeChange plugin

Select targets:

Make GML Schema (xsd) Make Excel mapping file Make JSON Schema
 Make external codelists Make FeatureCatalogue Make Ontology (RDF/OWL)

Transform
Close

Project properties Logg

EA project file: C:\shared\extra\joan\kt\w\geosync\SOSI_modellregister_JET40.eap

Name: FKB-BygnAnlegg 4.6

Namespace: http://skjema.geonorge.no/SOSI/produktspesifikasjon/FKB- tag: targetNamespace

xmlns: app tag: xmlns

Version: 4.6 tag: version

Encoding rules: sosi tag: xsdEncodingRule

Export GML: C:\shared\extra\joan\kt\w\geosync\XSD\

GML (Xsd): FKB-BygnAnlegg46.xsd tag: xsdDocument

Export codelists: C:\shared\extra\joan\kt\w\geosync\CL\

Export Excel: C:\shared\extra\joan\kt\w\geosync\Excel\

Export featureca: C:\shared\extra\joan\kt\w\geosync\FC\

Description: Spesifikasjonen beskriver bygningsmessige anlegg som ikke

Producer: Statens kartverk, http://www.statkart.no/

Settings
Help