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Norwegian INSPIRE implementation – some best practices

Olaf Østensen, Kartverket

INSPIRE conference, Ljubljana, 21-09-2015

Message from Norway:

«I am deeply sorry that we are unable to attend this conference due to other meetings and obligations we could not change.

I wish you all luck with the conference, and look forward to continued activities in the project supported under the EEA Grants!»

Olaf Magnus Østensen

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INSPIRE and Norway

INSPIRE implementation was simplified as a natural continuation of a long term national collaboration:

- Standardization from mid 80'ties
- Geovekst (collaboration across public sector) from 1995
- Arealis including the environmental agencies since 1996
- Culminating with Norway digital since 2005

Norway digital today is a formal collaboration under contract between all public sector institutions with an interest in geospatial information – users and producers

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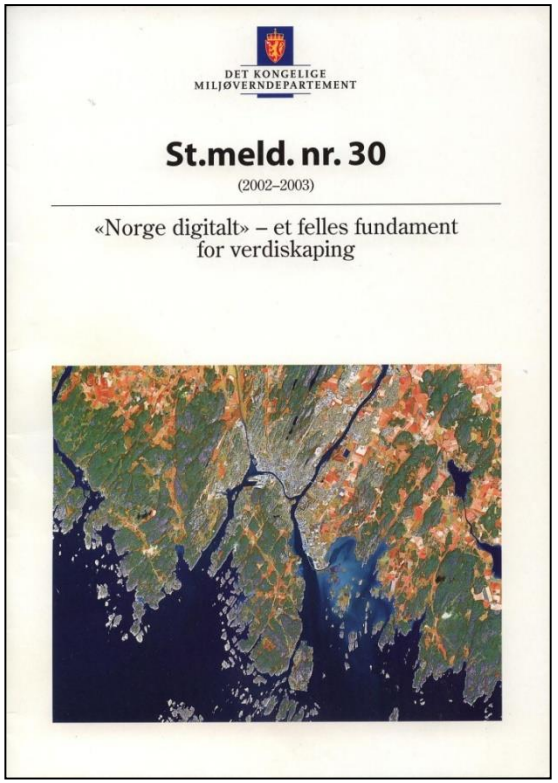
The start of the formal Norwegian SDI – the Parliamentary White Paper

«Norway digital» - a common fundament for value adding

The Parliamentary White Paper presented by the Norwegian government and accepted by the Parliament on June 18, 2003



Norwegian legal framework on NSDI

- White paper 2003
- Norway Digital 2005
- Governmental organisations – 600 parties
- Municipalities, counties, national organisations, ministries
- Geodata act 2010
- Geodata regulation 2012
- Our regulation points to the different Inspire regulations

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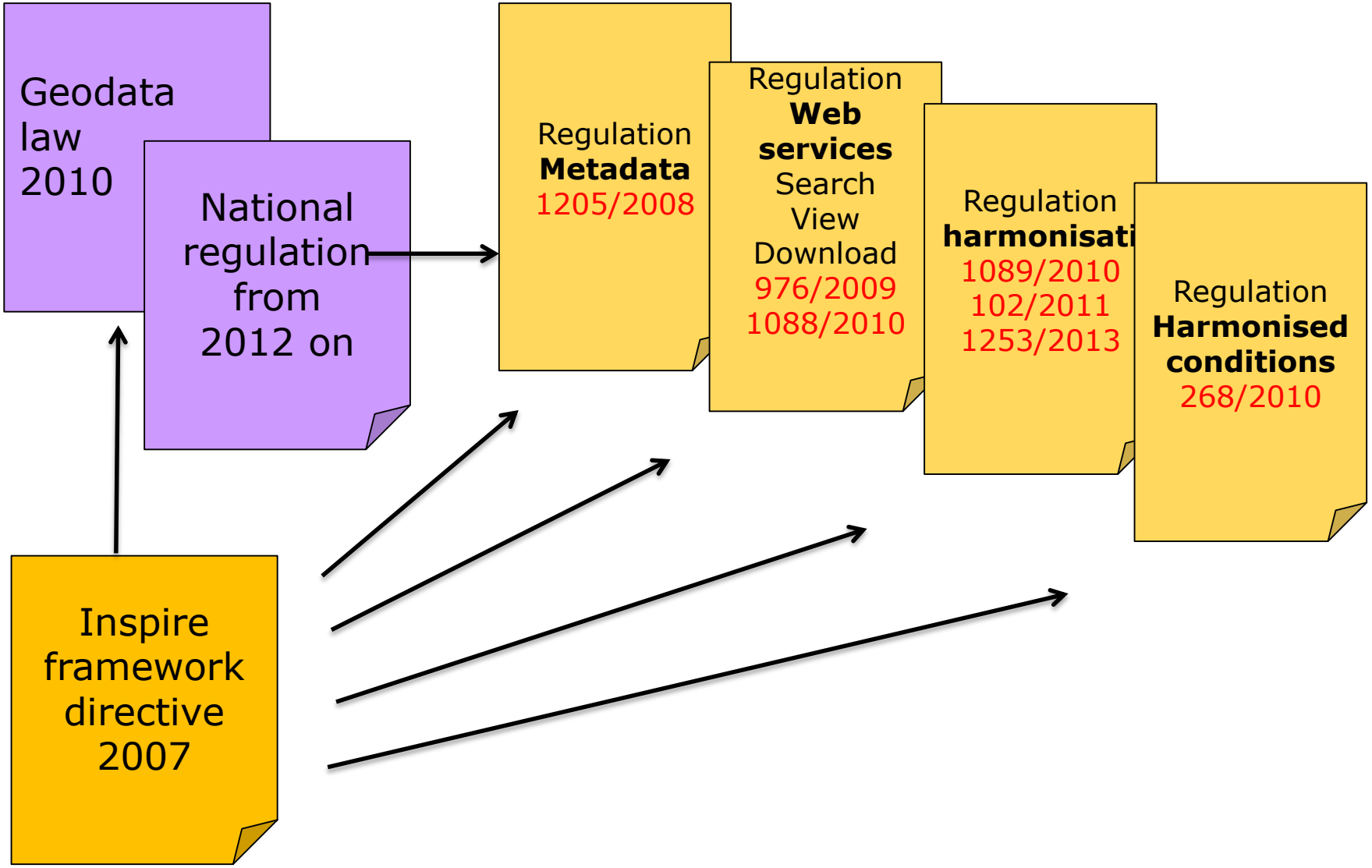
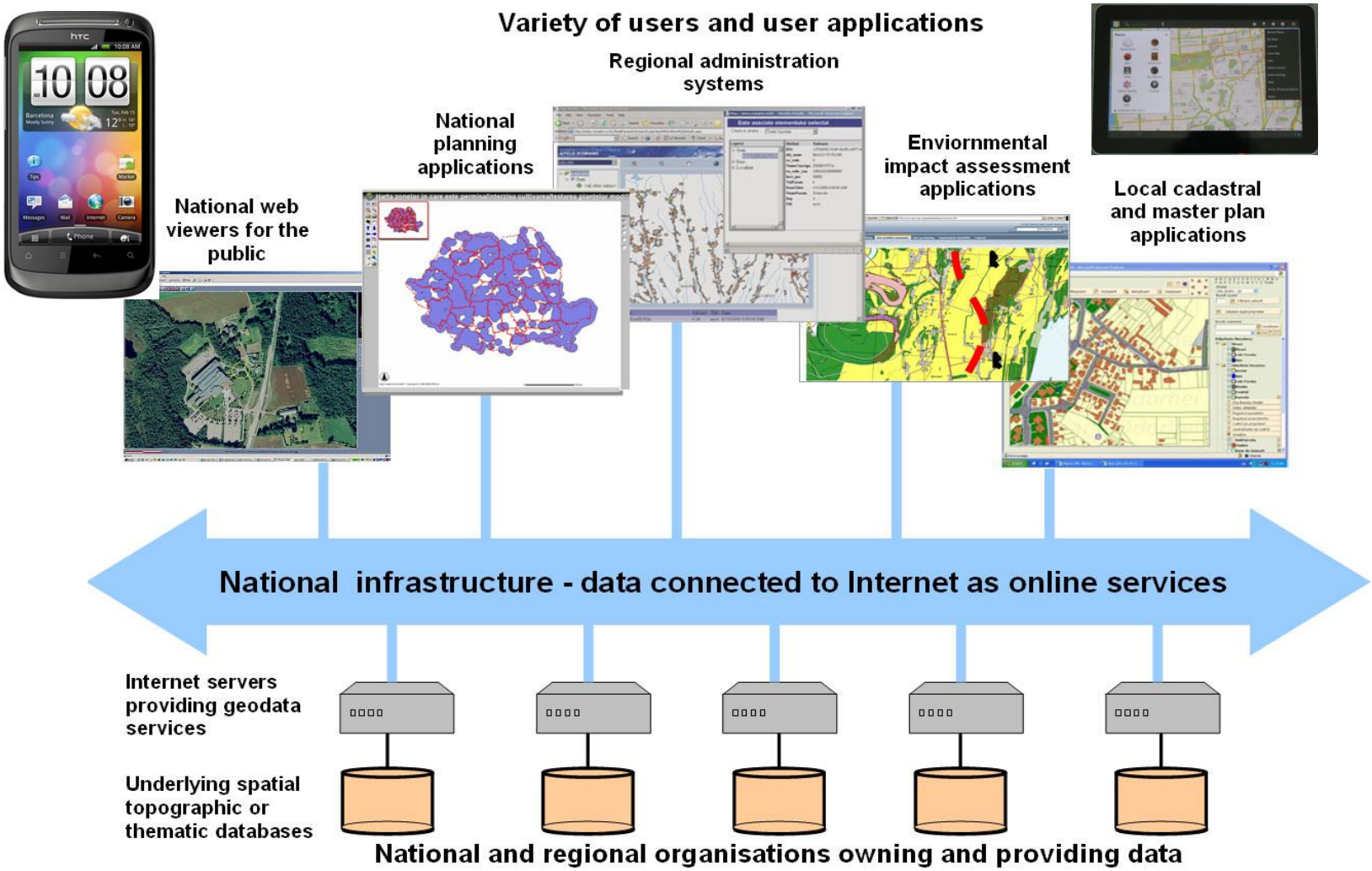
National law/regulation points to INSPIRE regulations



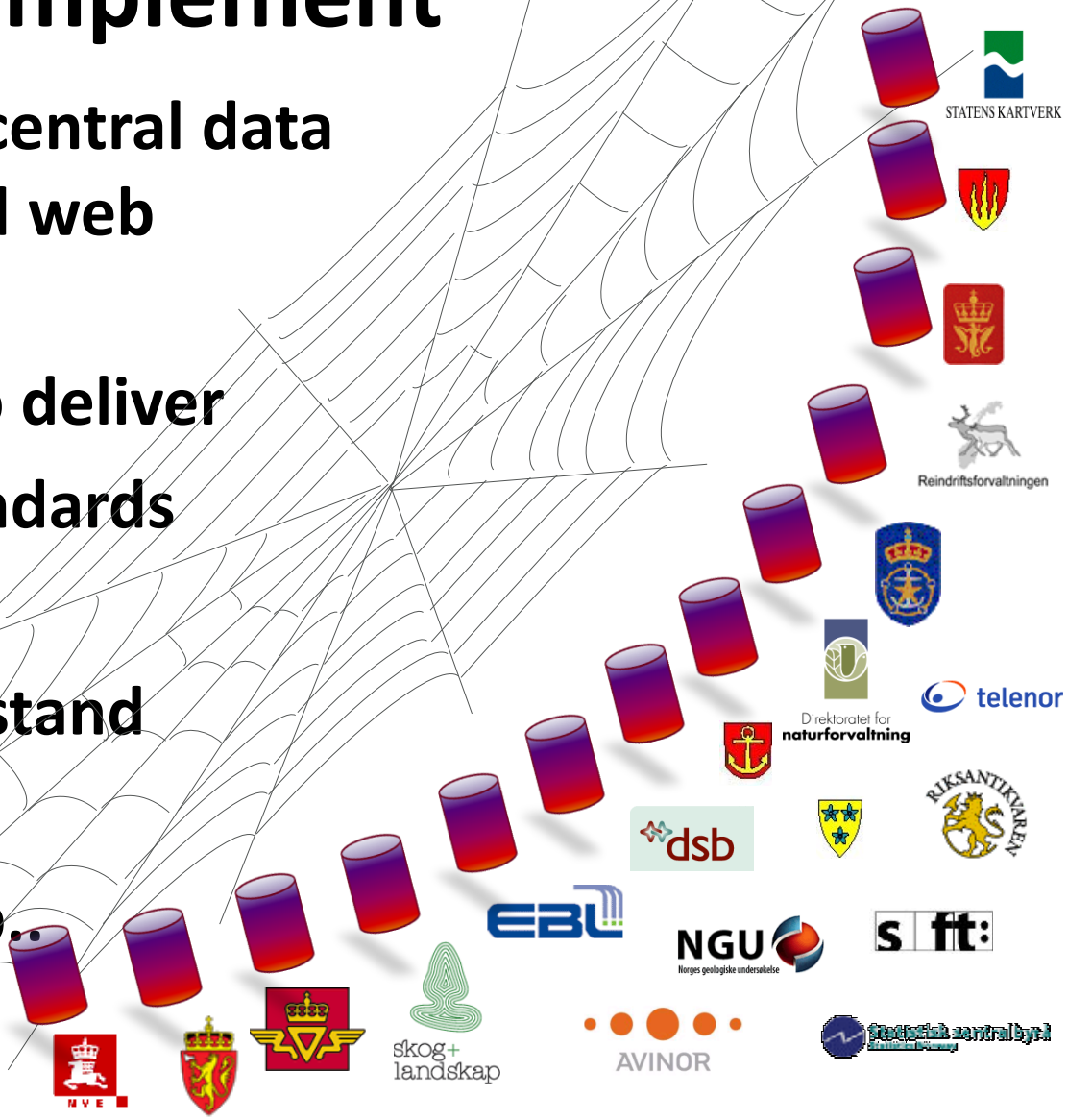
The NSDI a system of distributed responsibilities
- *offering harmonised services*



Decentralised - many organisations to implement

- We don’t have one central data base and centralised web service ”motor”
- Each organisation to deliver
- Need to stick to standards

- They need to understand
- They need guidance
- They need follow up.



Guidance and support

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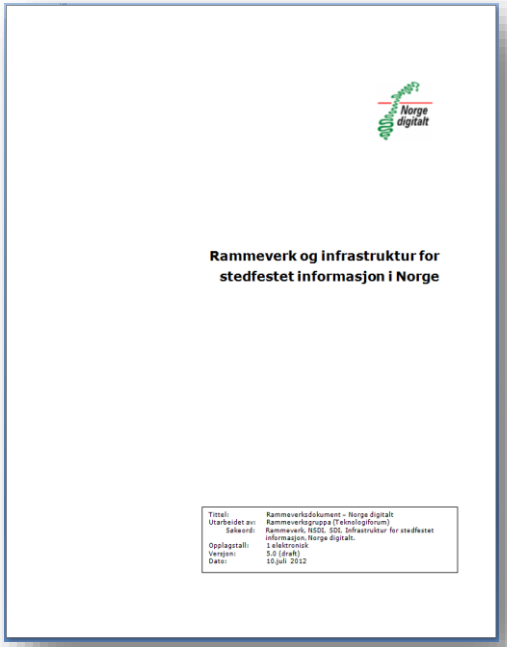
NSDI Tecnical framework document

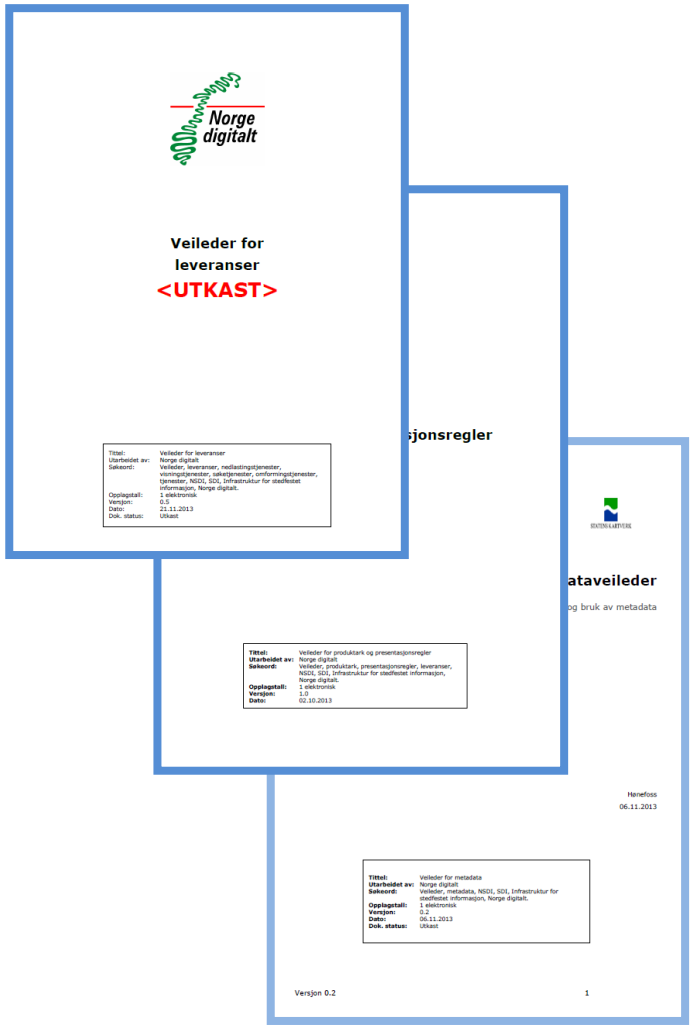
- Statements of the
  - Overall idea and architecture
- Technical requirements
  - Data sets, services, documentation
- Formal time schedule for requirements
  - What to be delivered when
- National adjustments and agreements
  - how do we understand Inspire
- Needs to be dynamic – things change…..
- Points to national guidance documents



Guidance documents
– how to deliver and use

- How to deliver data and services
- How to use data and services

- Guide: Metadata
- Guide: Product specification
- Guide: Factsheet and portrayal
- Guide: WMS
- Guide: WFS
- Guide: GML
- Guide Atom Feed
- Guide: SLD

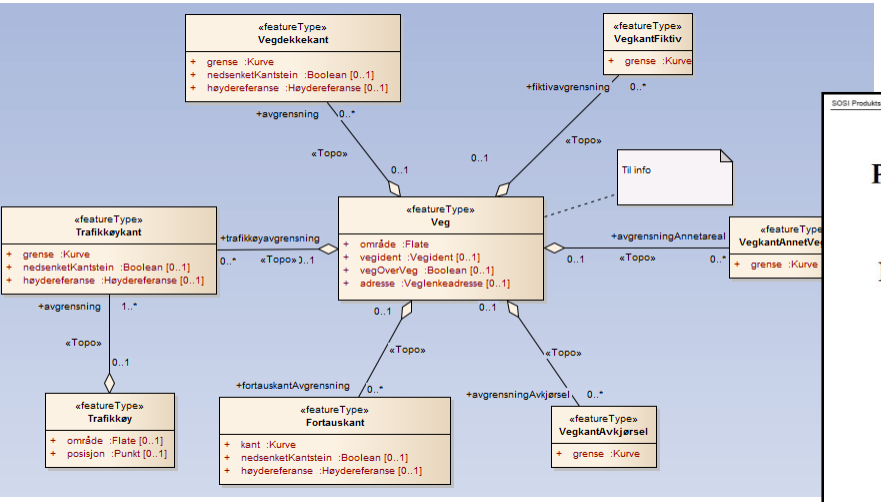


Technical workshops - annual programme

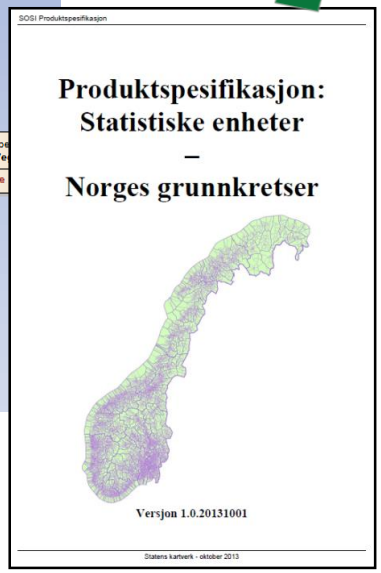
- Cources dependent on
  - Ready made guidance docs
  - Tools
- Courses autumn 2013-2015
  - Metadata og CSW
  - GML
  - WFS
  - Harmonisation

Data modelling – model driven approach

Data model using UML



Full product specification
According to ISO 19131



Deriving INSPIRE services

… and other products

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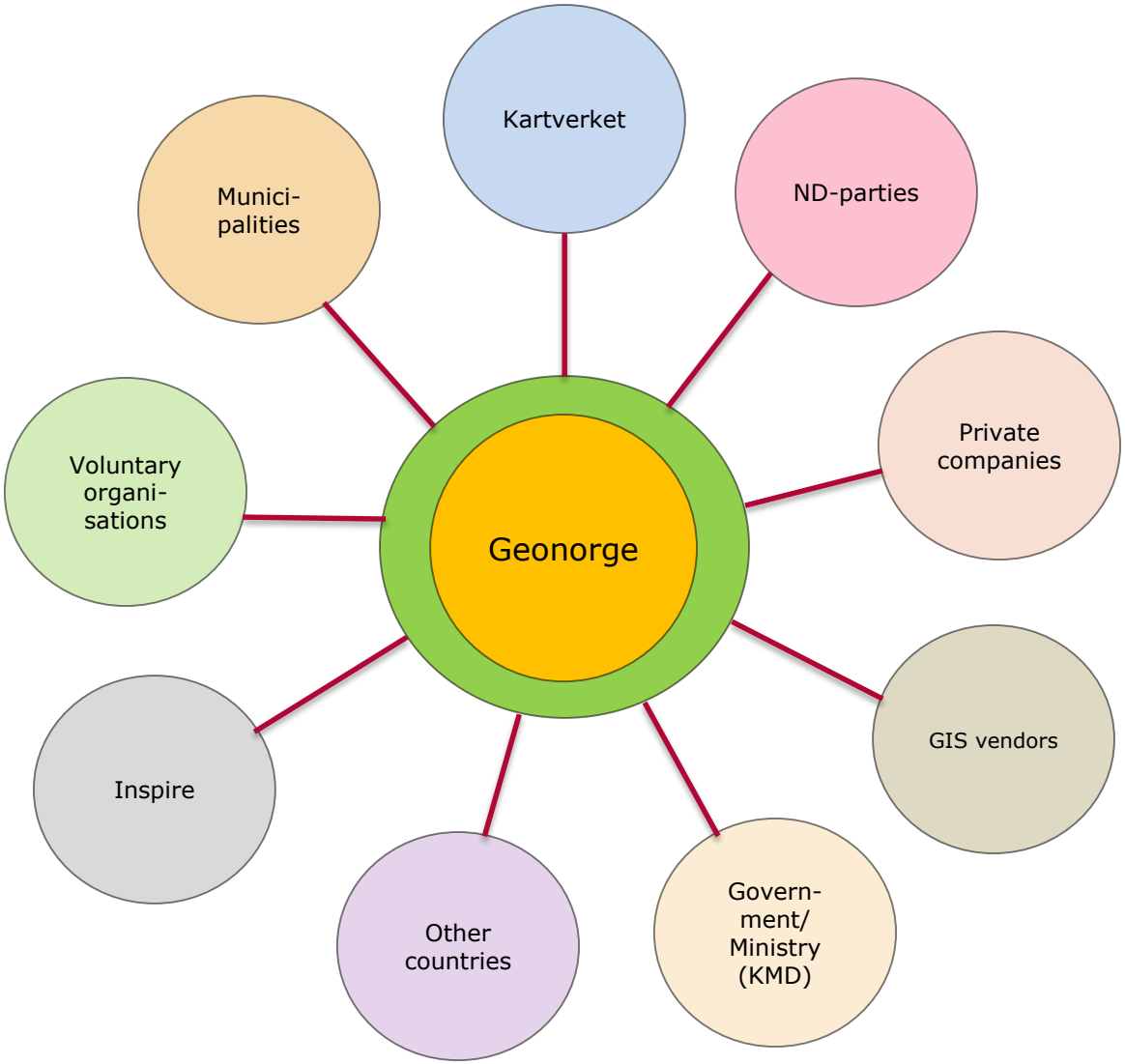
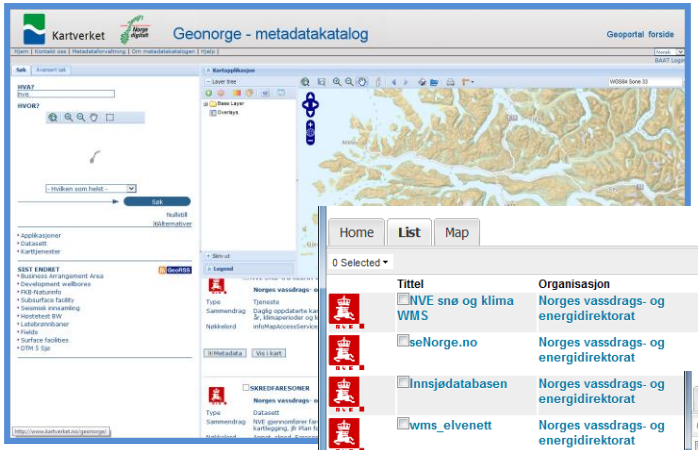
Clients and applications

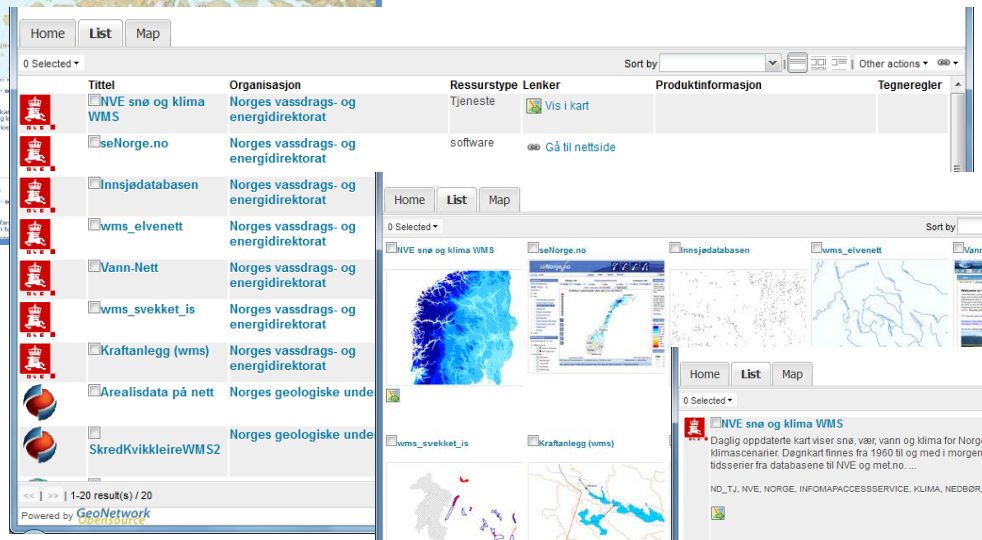
The Geoportal = the Hub

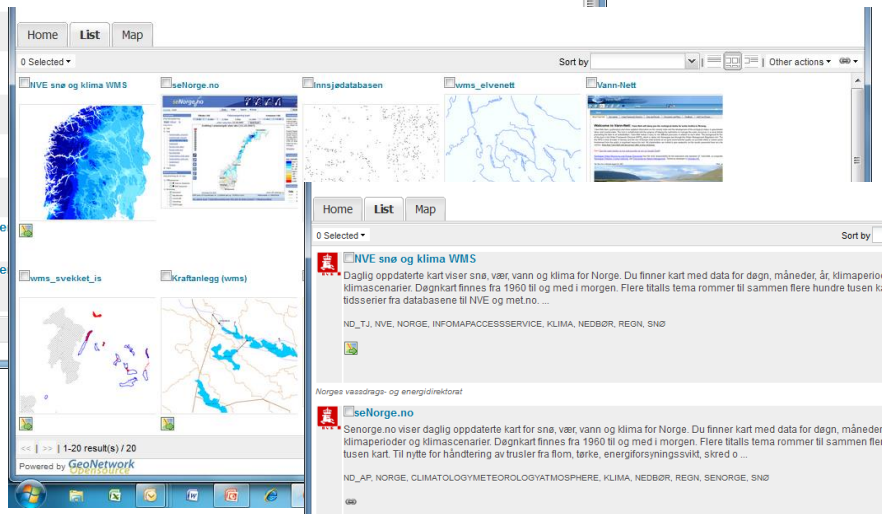


National geoportal project 2014-2016

New development project – catalogue, registry, map viewer, tools, AAA, ….







User friendly

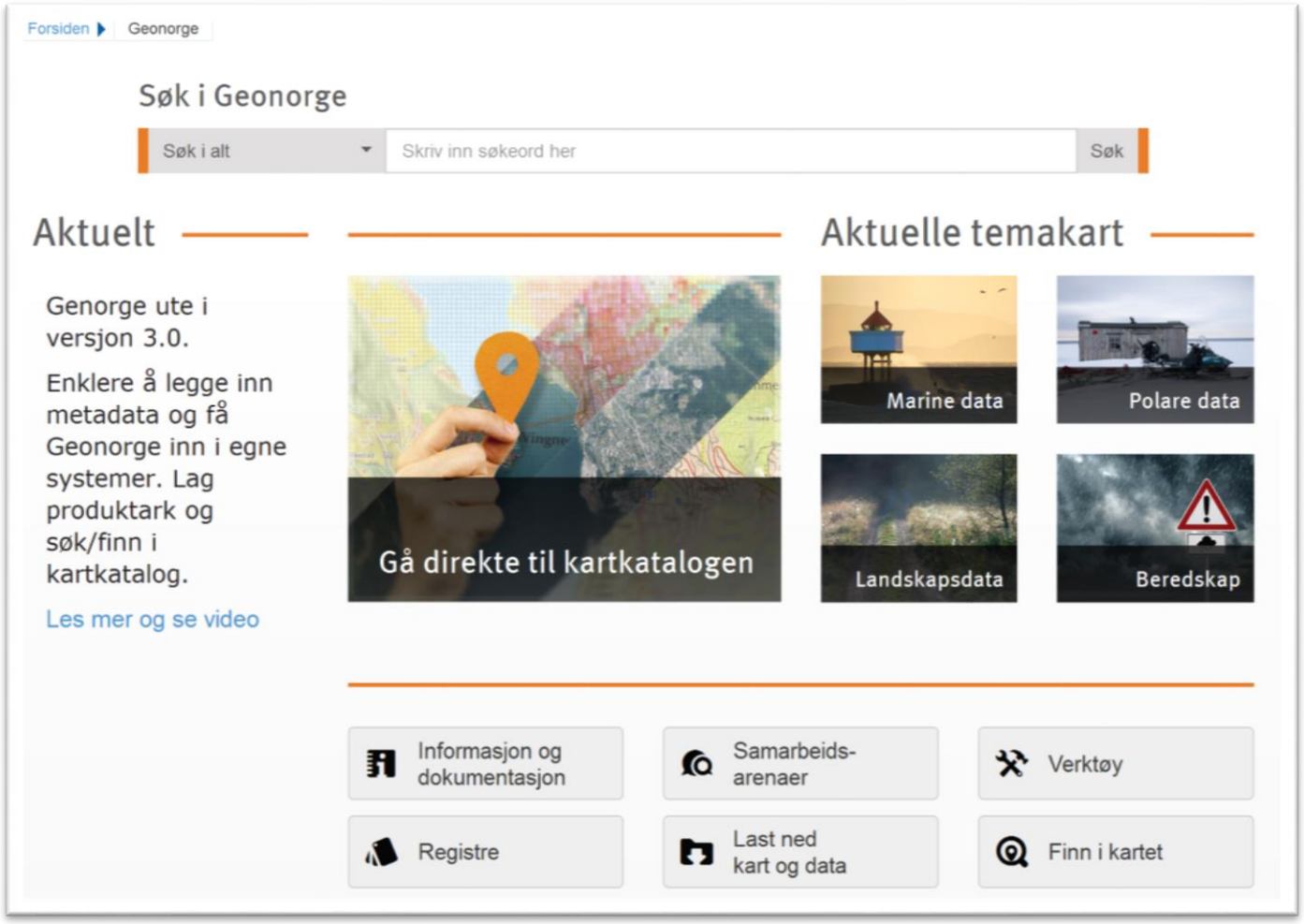
Maps, lists and filters

Links between related

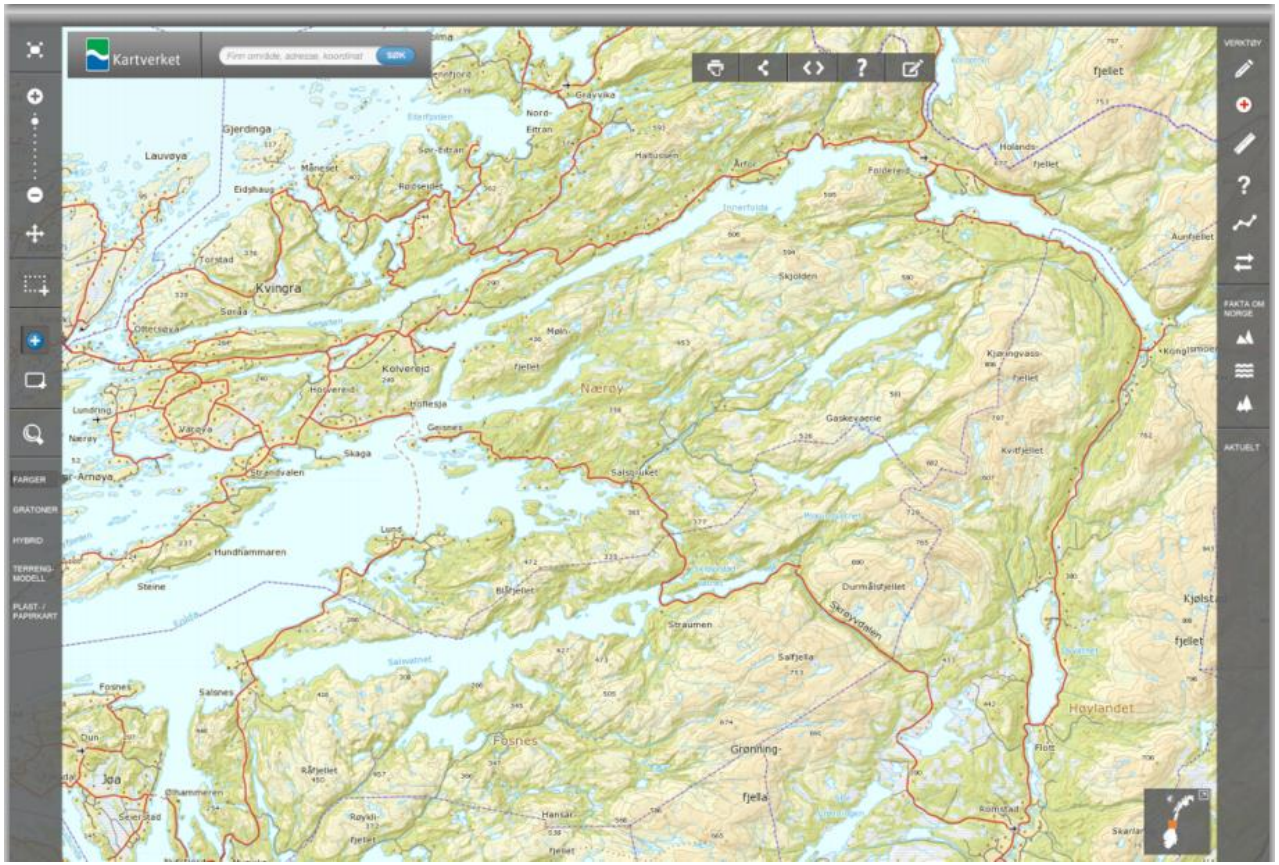
”All” existing

Detailed

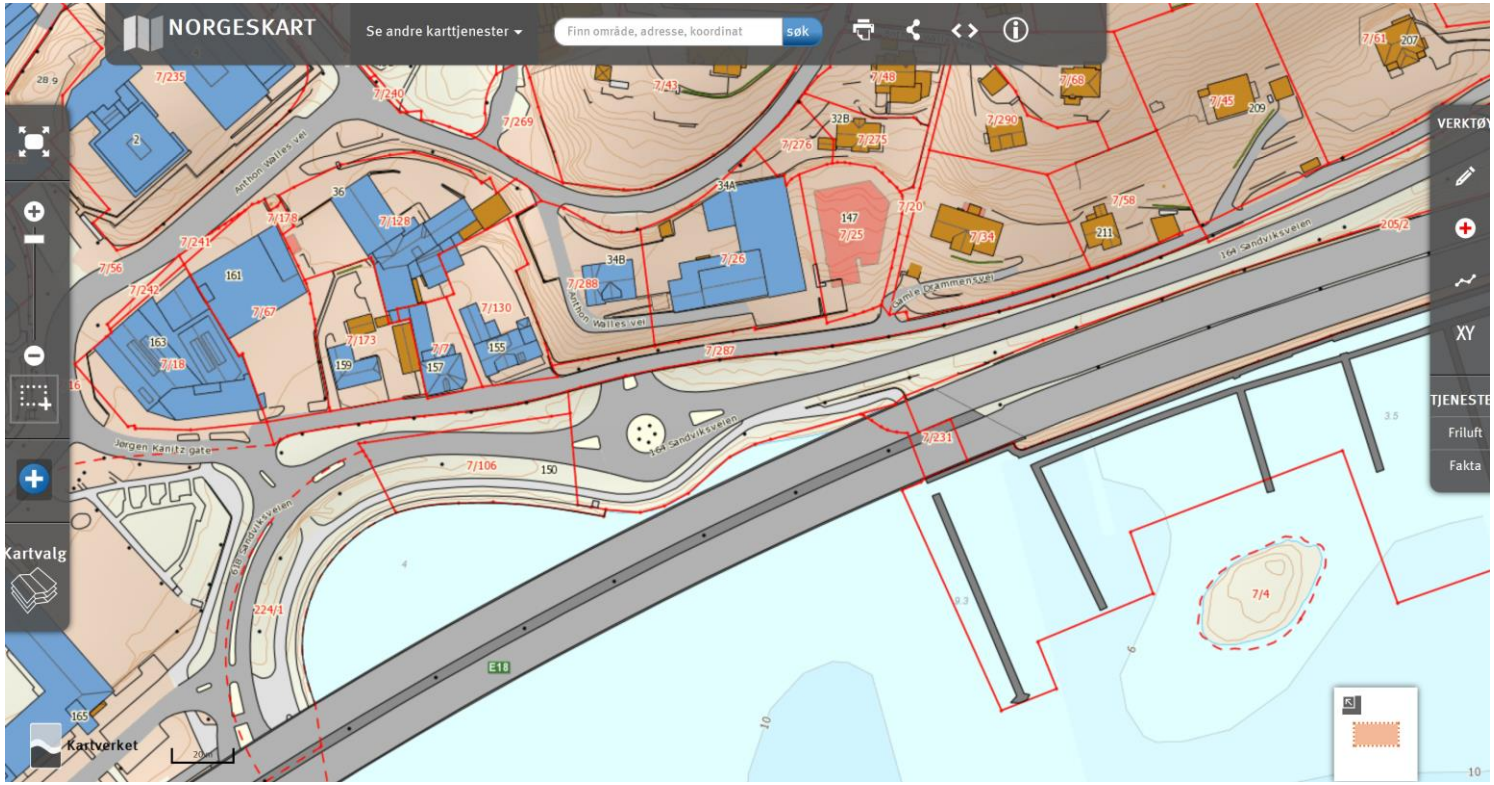
Geoportal – Geonorge.no



Norgeskart.no
– Kartverket's viewing client



Includes addresses, bathymetric data in sea (depths from sea charts)

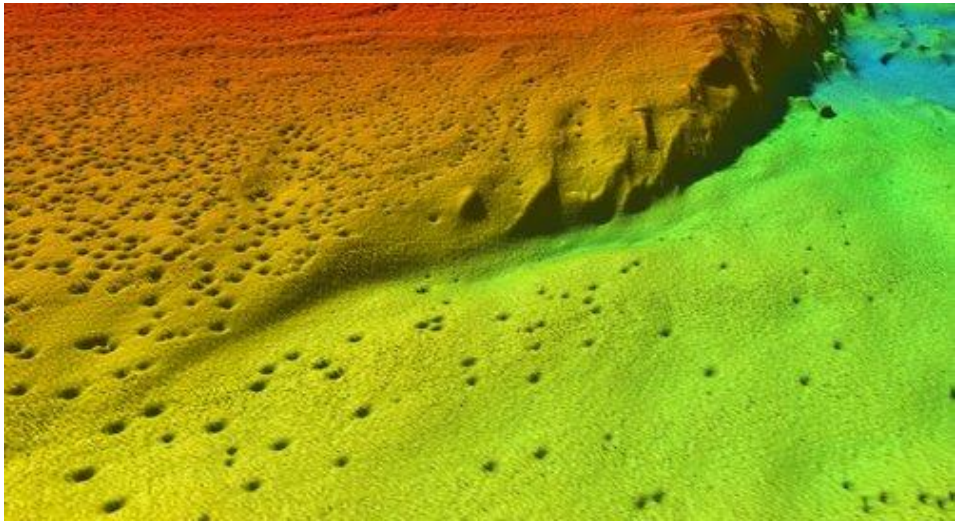


Services

Web Service development and maintenance

Laserdata/3D data

RDF



INSPIRE services and more …

View

WMS

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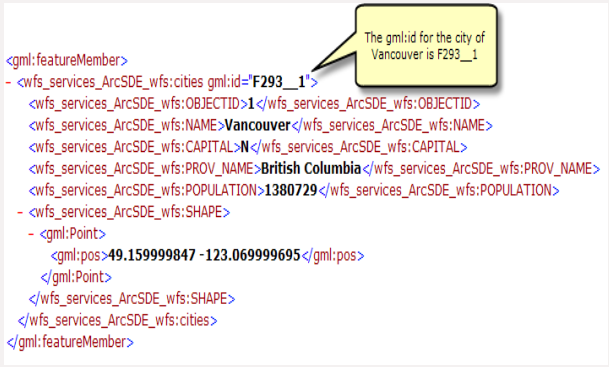
Download

WFS



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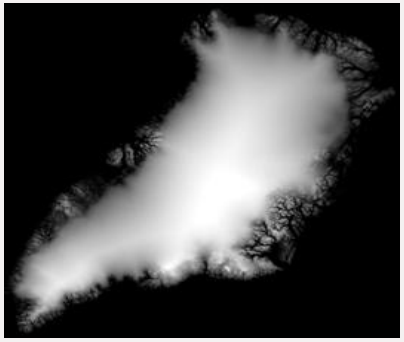
WCS



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Other WS

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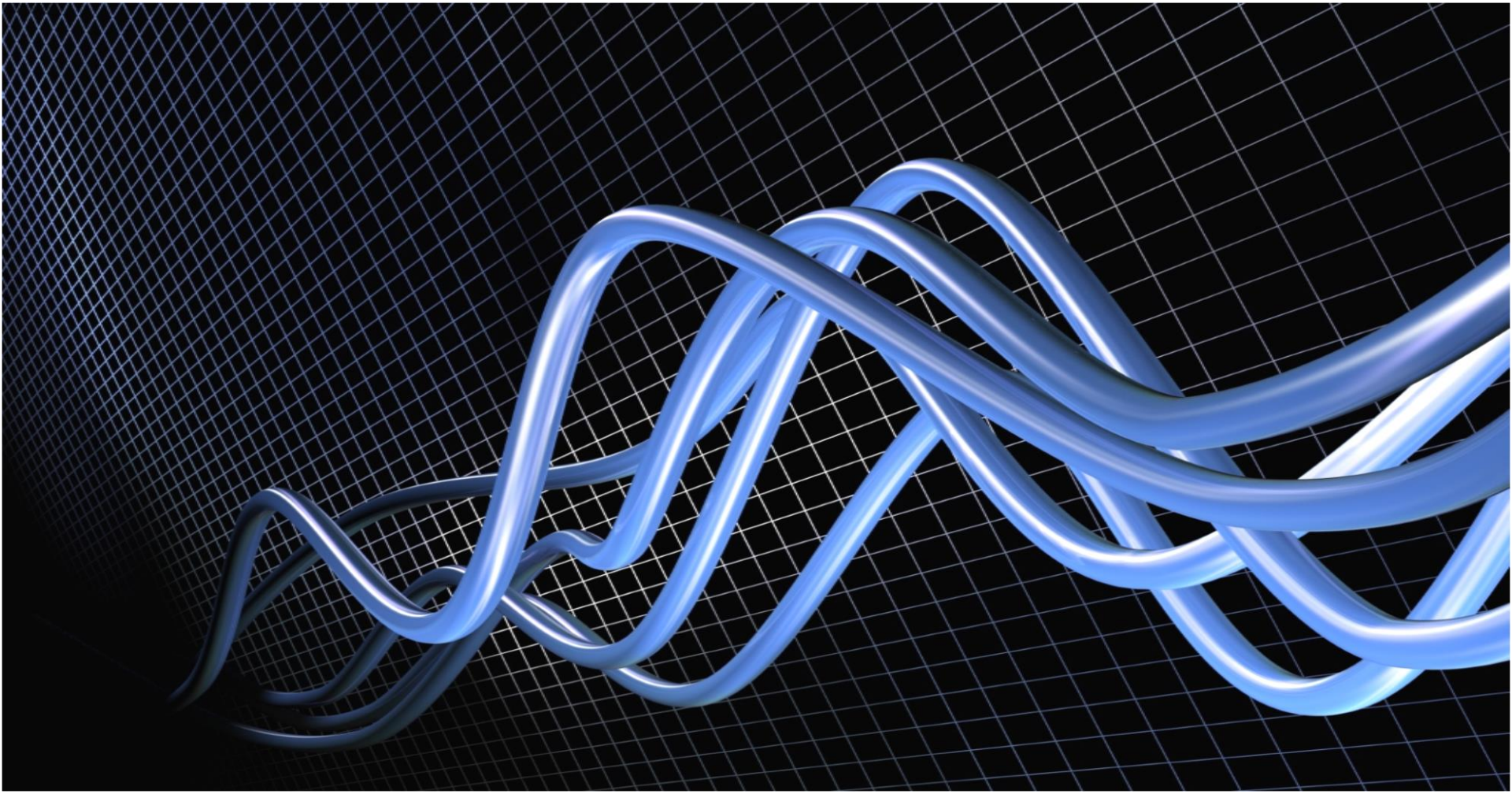
Infrastructure



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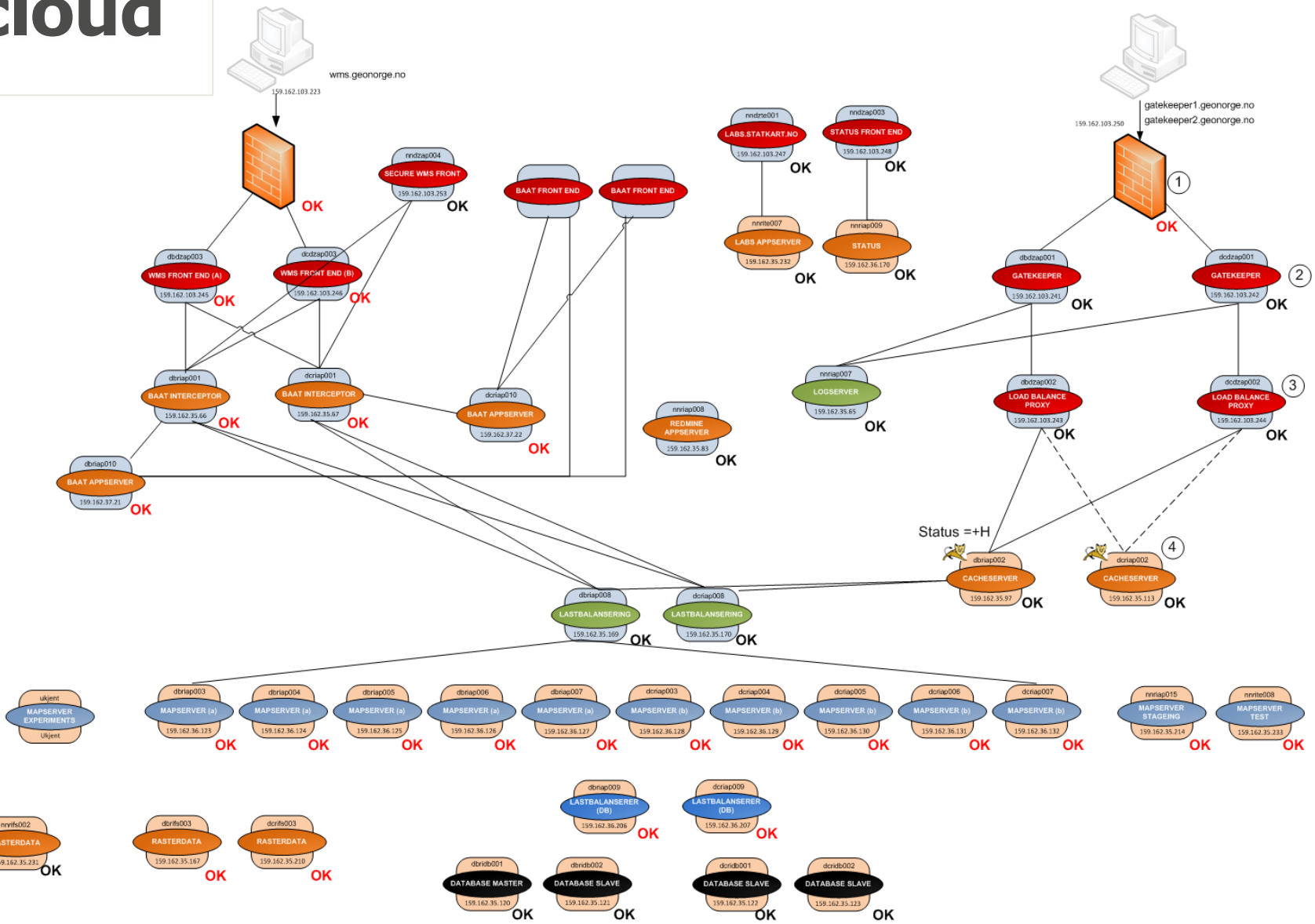
MapServer

GeoServer

deegree

Organised as a private government cloud



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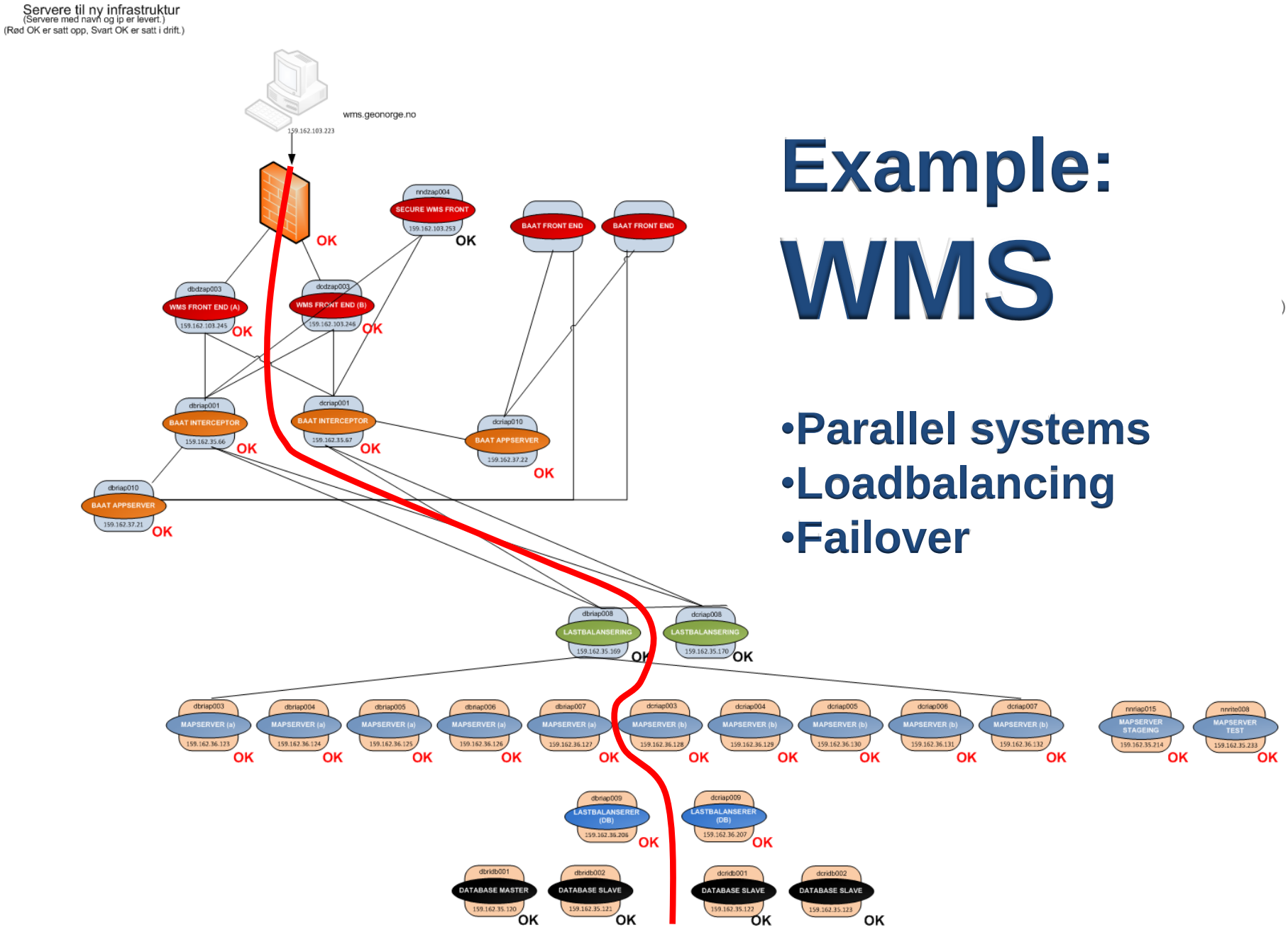

Example: WMS

- Parallel systems
- Loadbalancing
- Failover

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Status today

- The new, modern geoportal in operation – covering metadata far beyond INSPIRE requirements
- Hundreds of wms services covering almost all the 34 INSPIRE themes
  - Operated by the individual agencies
- WFS downloading services emerging – The European Location Framework project – ELF – a driving force

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Summary – success factors

- Based on a more than 20 years of close collaboration in public sector – and private!
- Standards were developed with participation from the full community
- A *wms* infrastructure introduced already from 2000 and onwards
- Supporting activities – guidance documents, courses, collaboration fora
- ***Key principle – involve the community on an equal basis!***

Thank you for your attention!

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