Kartverket

BaseMap Specification
INSPIRE – Antwerpen
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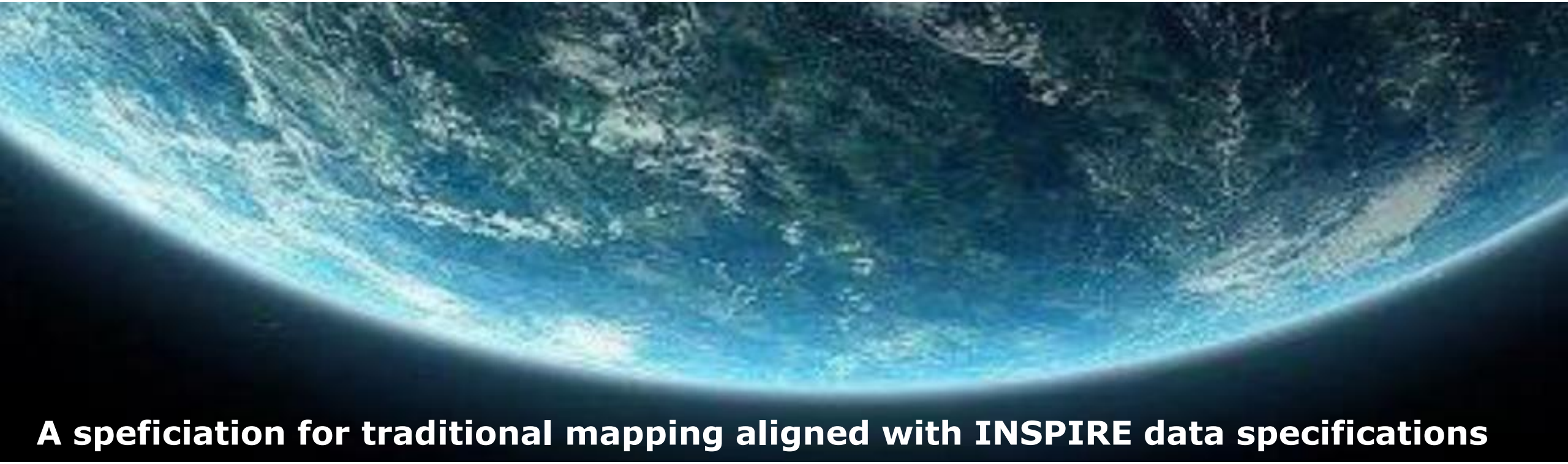


A speficiation for traditional mapping aligned with INSPIRE data specifications

Outline

- Objectives – EEA and Norway Grants
- Why another specification?
- BaseMap specification theme/content
- Architecture
- UML model structure
- Modelling technics
- Tools
- Achievements and lessons learned

Objective – EEA and Norway Grants

The basis for the Grants scheme is the EEA Agreement, which forms the foundation of Norway's cooperation with the EU.

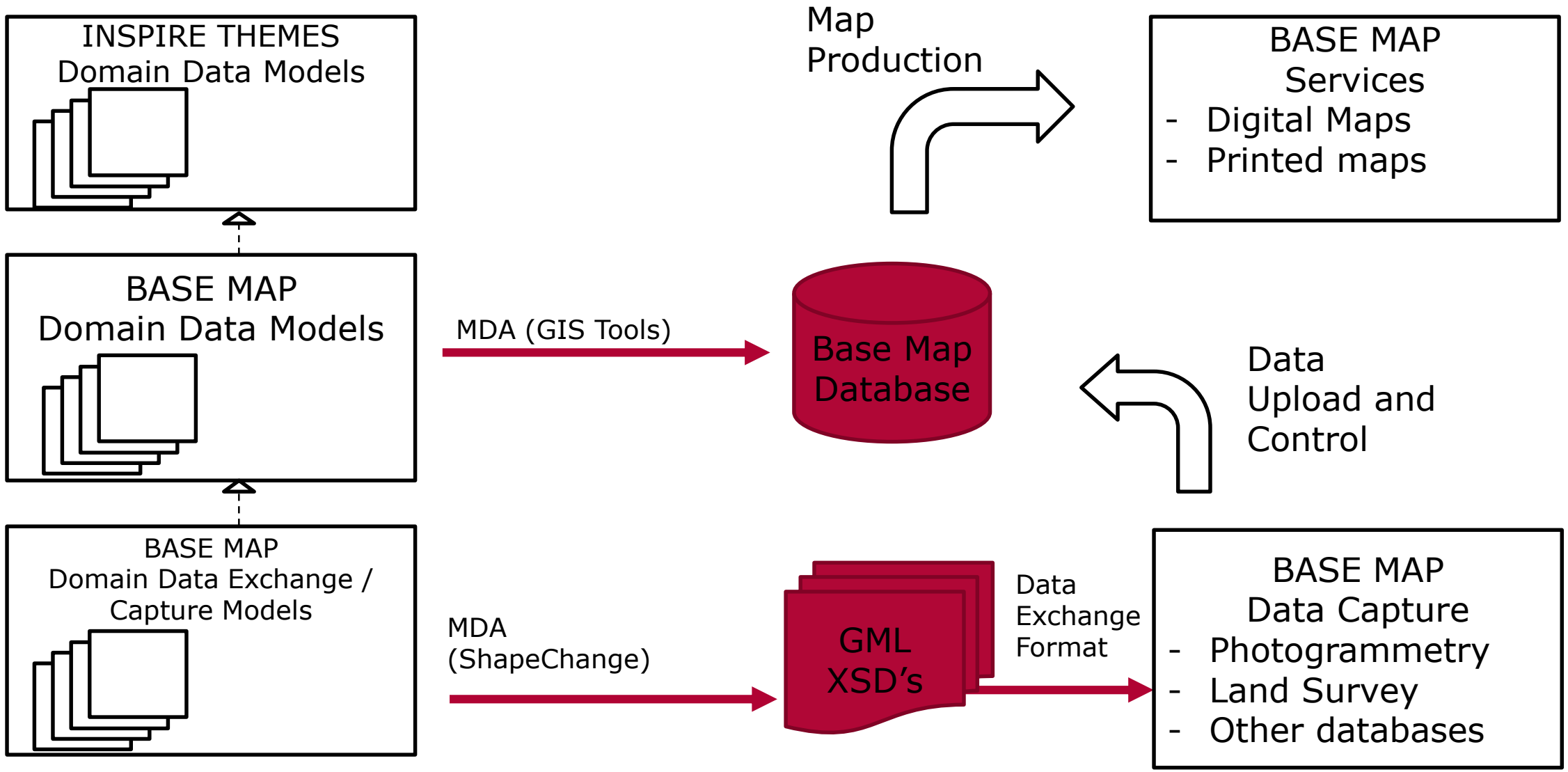
The EEA Agreement includes a common goal to work together to reduce social and economic disparities in Europe. Norway contributes towards this goal through the Grants scheme.

Spatial data is a substantial part of the Norway Grants. For the coming years, approximately 14M€ will be applied in Europe and globally where establishment of primary base map data is a component (particular countries in the eastern part of Europe).

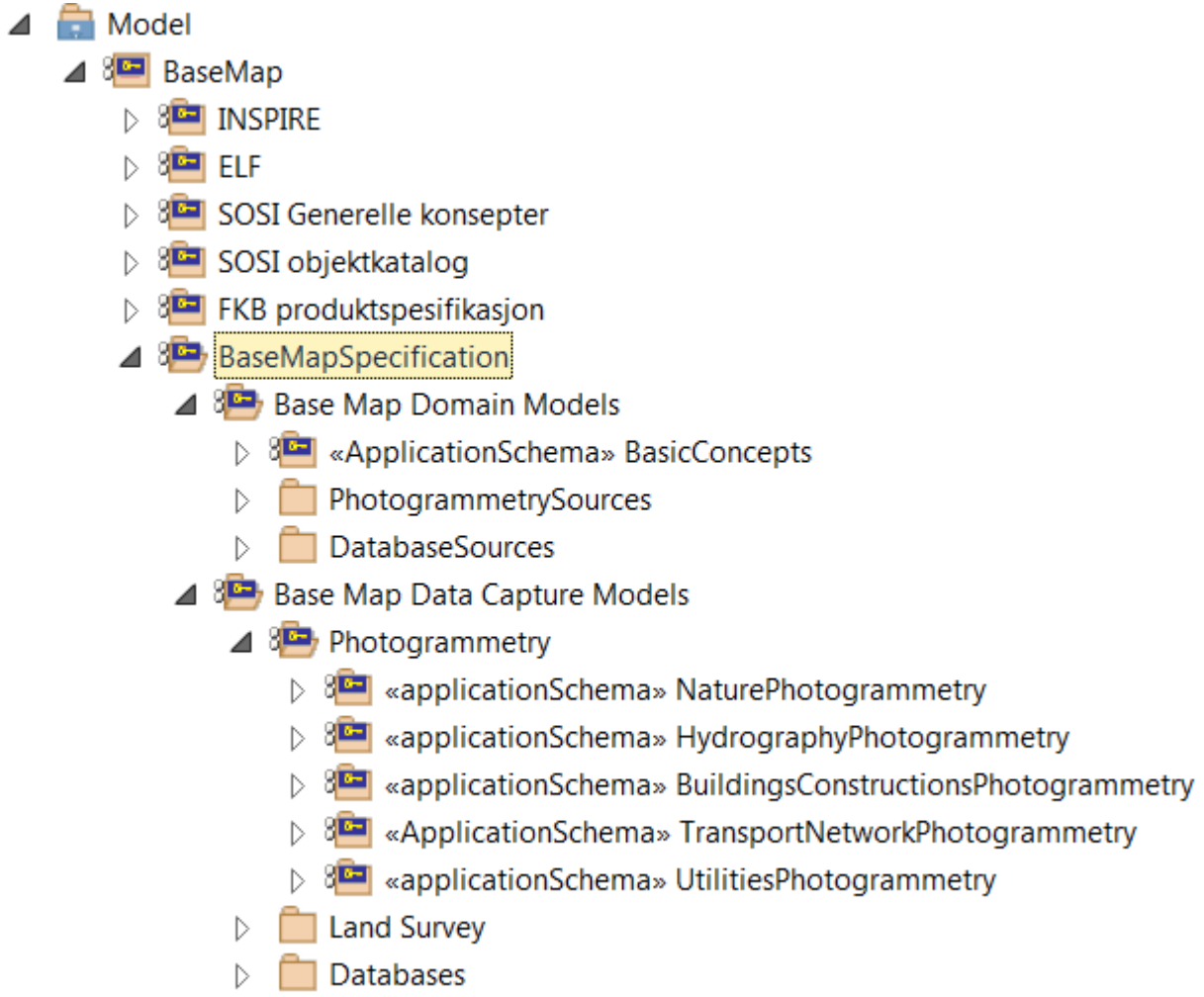
BaseMap Specification – Why another specification?

- Framework for new map production countries mainly in the eastern part of Europe, but also other parts of the world where applicable.
- Applies the Norwegian experience in traditional map production and aligning this with the INSPIRE data specification for the relevant themes.
- Is not INSPIRE compliant (only what you can register from aererial photos), but could be extended at national level to be INSPIRE compliant.
- Will increase the amount and availability of data that could be used to fulfil the INSPIRE legislation.
- Based on experience from existing projects internationally and identified user requirements).

Architecture



UML model structure



European Location Framework (BRUKER VI NOE HERFRA??)

Generic concepts applied in FKB

Feature catalogue / Feature concept dictionary (BRUKES DENNE?)

Norwegian product specifications for large scale data

Full domain models

Domain independent basic concepts for all themes

Realizations of INSPIRE models

Full domain model for database generation (HVORFOR IKKE BARE DATABASE?)

Data capture models

Data product specification framework for photogrammetric data capture.

Base map specification themes for photo- grammetric production

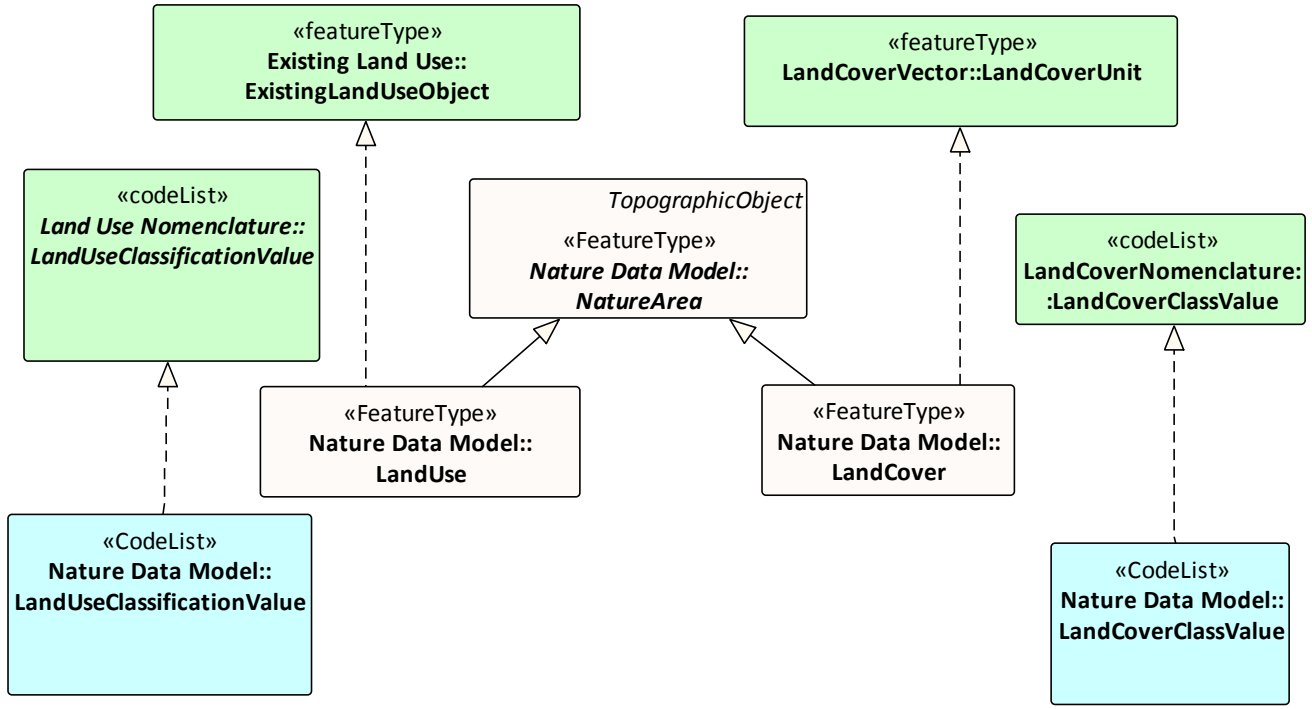
Extended model with features and semantics provided by other means.

Hvorfor har vi denne her, bør vel bare ligge til Domain models?

Modelling technics

Earlier projects of INSPIRE extensions have identifies tree main UML concepts:

- Subtype
- Realize ✓
- Redefine



Example of realizing features from INSPIRE Land Use

Tools

Tool	Function
Enterprise Architect (EA) with SVN subversioning	UML modelling
ShapeChange version 2.1.0.10 by http://www.interactive-instruments.de/	Generate GML applciation schema from UML model
Shapechange plugin for EA by arkitektum.no	GUI for ShapeChange in EA
GISTooles for UML by arkitektum.no	GUI for generation of ArcGIS, PostGIS, Geoserver, Degree databases and FME mapping
GML example generation by https://gmlgenerator.geonorge.no/	Generates XML example pseudo fil from xsd, to ease the understanding of the GML application schema
PostGIS/Geoserver database	Database for storing the datam according to the UML models.
SOSI model validation by Norwegian Mapping Authority	Validation of UML models according to ISO 191xx standards, plug-in to EA.

Achievements and lessons learned

STEINAR, KAN DU LEGGE INN LITT INFORMASJON OM RESULTATET FRA GEORGIA, GJERNE OGSÅ ANDRE LAND HVOR DETTE KAN RULLES UT.