



Providing easier access to more up-to-date and quality-assured data in a centralised national database



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GEOVEKST cooperation



Est. 1992

- Municipalities
- The Norwegian Roads administration
- Agriculture administration
- Former public agencies for telecom and power supplies
- The Norwegian Mapping Authority
- Make standards and product specifications to meet all the members needs for geospatial data
- Establish and maintain mapping data
- Share the costs

BACKGROUND

Geovekst is the name of a Norwegian public cooperation for spatial data. The cooperation consist of the municipalities of Norway, The Norwegian Mapping Authority, The Norwegian Public Roads Administration and other public agencies. The cooperation was established in 1992. Former public agencies for telecom and power supplies are now privatized but are still part of the cooperation.

This cooperation is not based on laws. Every partner joins the cooperation for their own benefit.

FKB Product specification

(FKB = Felles KartdataBase => Common Mapping Database)



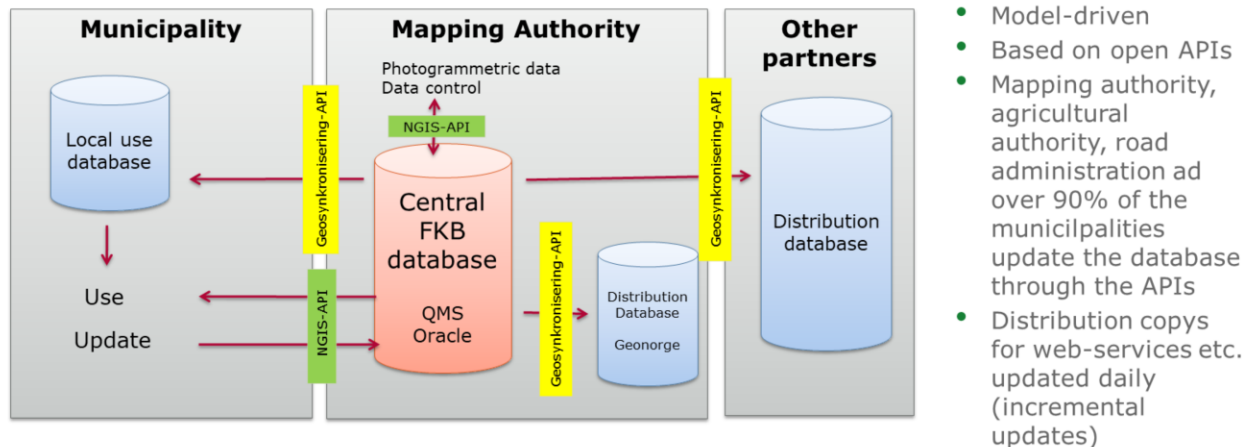
- FKB is a list of data specifications for detailed map data for different themes
- Geovekst are responsible for the FKB product specifications
- The data specifications is part of the Norwegian SOSI standard for spatial data. The SOSI standard is based on UML data models in compliance with the ISO principles.
- Most of the FKB-data is captured by photogrammetry from aerial photographs with pixel size from 8 – 25 cm.
- 2.5D data – new version with 3D (solids) in 2022 (?)

BACKGROUND

Geovekst are responsible for the FKB product specifications. FKB is a list of data specifications for detailed (topographic) map data for different themes. The principle of FKB is to meet all the members in Geovekst's need for detailed map data. The cost for establishing and maintaining the data is split to the members of the cooperation and all the members have full access to the data.

The data specifications is part of the Norwegian SOSI standard for spatial data. The SOSI standard is based on UML data models in compliance with the ISO principles. The FKB product specifications also consist of detailed instructions for photogrammetric construction of FKB-maps. Most of the FKB-data is captured by photogrammetry from aerial photographs with pixel size from 8 – 25 cm.

The central FKB database



- Model-driven
- Based on open APIs
- Mapping authority, agricultural authority, road administration and over 90% of the municipalities update the database through the APIs
- Distribution copies for web-services etc. updated daily (incremental updates)

THE CONCEPT

The central FKB database is based on two open APIs. This is the *NGIS-API* for updating the data in the database and the *Geosynkronisering-API* for synchronizing the updated data to copies. The municipalities are intensive updaters and users of the FKB-data and a part of the concept is that all the municipalities have a copy of the central database for their area.

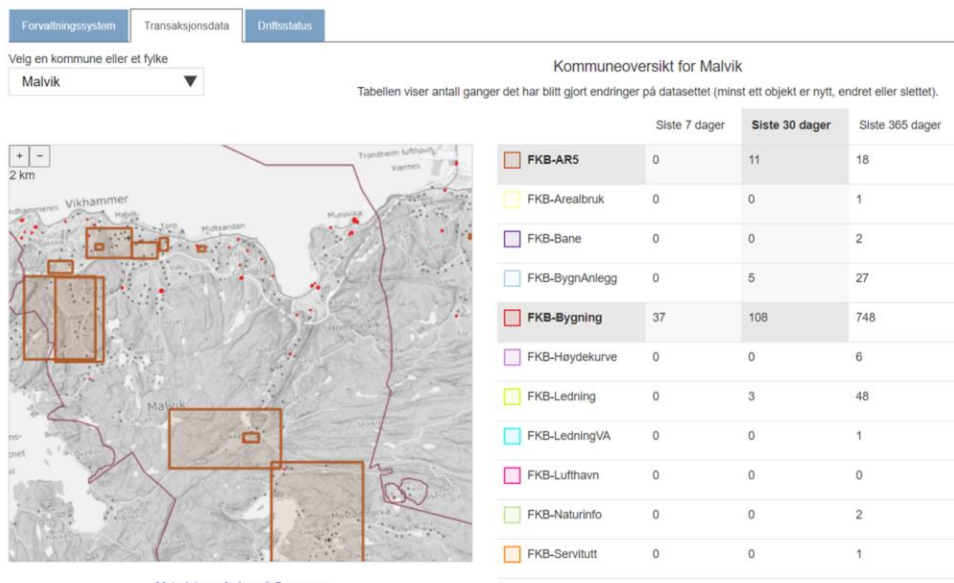
The central database itself is based on the software Quadri Map Server (QMS) which handles the mapping between the APIs and the database. The database is currently based on Oracle. The QMS software is developed in a partnership between Norwegian Mapping Authority and the company Norkart AS. The Norwegian Mapping Authority uses an own developed client software for updating the system while municipalities and other agencies can choose between client software from two competing software companies (Norkart AS and Norconsult Informasjonssystemer AS).

Model driven:

Both the APIs and the structure of the database are based on UML-models. This means that there is easy to extend the content of the management system simply by making a new UML data model and export setup information from the model.

Geonorge.no - The national geoportal

- Detailed metadata
- Access to data (services and downloading)



FKB-data is the core detailed basis geospatial data in Norway. Updated data from the central FKB database is a significant part of Geonorge.no. WMS-services and downloadable files containing FKB-data for each municipality is updated on a daily basis.

The national geoportal (English version): <https://www.geonorge.no/en/>