

Norway

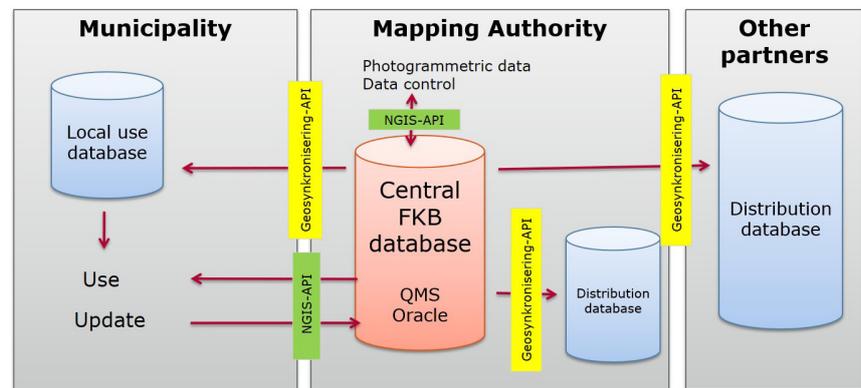
Providing easier access to more up-to-date and quality-assured data in a centralised national database

Directly updating detailed map data in a centralised national database is providing easier access to more up-to-date and quality-assured data for all in Norway.

The Norwegian State is investing in digitisation of public services and internal work processes to renew, simplify and improve management. Effective cooperation between state, municipal and private organisations has been crucial to establish a more effective and accessible management solution for the most detailed map data.

Until 2016, management of detailed map data was based on the exchange of files between municipalities and the Norwegian Mapping Authority. Each municipality updated their own database, while files they submitted once or twice a year were saved to copy databases for further use by national agencies.

Today's solution, which is now entering its final project year, provides one centralised national database where municipalities update their data through an open API, based on the national standard for synchronising geographic information between computer systems to keep the



Showing the dataflow of the system. When municipalities update the central database using the NGIS API, the local copy is immediately updated using an API for geosynchronisation.

distribution systems up-to-date. This system is based on a model-driven architecture that requires data managed in the system to be extracted directly from Unified Modelling Language (UML) models in the data specifications.

Detailed map data includes nationwide data for terrain, water, land resource, land use, buildings, roads, railways, wiring and other structures. The work to collect and update detailed map data is organised through a collaboration between several public organisations which have a great need for data and are data producers. Partner institutions include municipalities, the Norwegian Mapping Authority, the Norwegian Public Roads Administration, agricultural authorities and power suppliers.

The collaboration is unique as participation is voluntary and based on individual partners' perceived benefit, not legal requirements. All the organisations involved can cooperate, regardless of their management level in the public hierarchy, to update map data into

one common central national database with multiple users connected at the same time. Services for accessing the data (WMS and download services) are updated daily so that all users have access to continuously updated data. The national geoportal is used to distribute data and services.