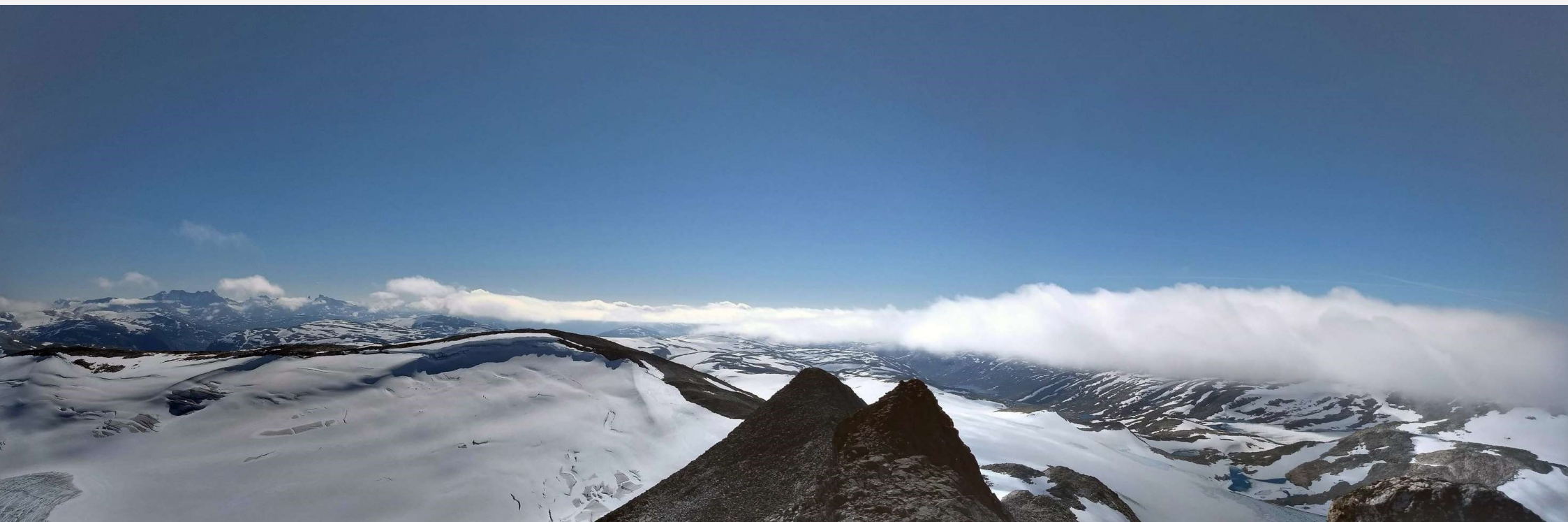


National report, Norway 2024



Positioning service

We are constantly increasing the number of our real-time positioning service (CPOS) users.

- The Norwegian Mapping Authority (NMA) now has more than 5000 unique users.
- Other private companies that base their services on the CPOS system have more than 15,000 unique users.
- We have also broadened our PGS network, now encompassing over 300 stations.



NVE uses CPOS for bathymetric mapping. Photo: Line Dale, NVE.



A LEAP TOWARDS
SAE L4 AUTOMATED
DRIVING FEATURES

A photograph showing several white autonomous trucks driving across a large suspension bridge. The bridge has a massive concrete pillar in the foreground. The background shows a forested landscape under a clear sky. Navigation arrows are visible in the top left and right corners of the image.

MODI project will pave the way for the mass adoption of highly automated freight vehicles through demonstrations and by resolving barriers to the rollout of automated transport systems and solutions

MODI ACCELERATES THE INTRODUCTION OF HIGHLY AUTOMATED SOLUTIONS TO IMPROVE EUROPEAN LOGISTIC CHAINS



5 use cases across Europe driven by business challenges.

MODI comprises **five use cases**, each describing a part of the **logistics supply chain**. The project will focus on understanding and overcoming the regulatory barriers and infrastructure shortcomings on the **motorway corridor** for public roads.

34
ORGANISATIONS

8
COUNTRIES

5
USE CASES

42
MONTHS

28M €
BUDGET

Hybrid Positioning Service (HyPos)

Hypos is a public-private collaboration between the Mapping Authority, Sintef, Telia, and Ericsson. The project is part-financed by the Research Council of Norway. The aim is to develop an accurate, scalable service for position determination in real-time, with greater coverage and higher redundancy than before.

- 1) Develop a new scalable method for broadcasting GNSS correction data.
- 2) Use the telecommunications network's 5G as an independent source for position determination.
- 3) Develop a new hybrid positioning service using both GNSS Correction (1) and 5G broadcasting (2).

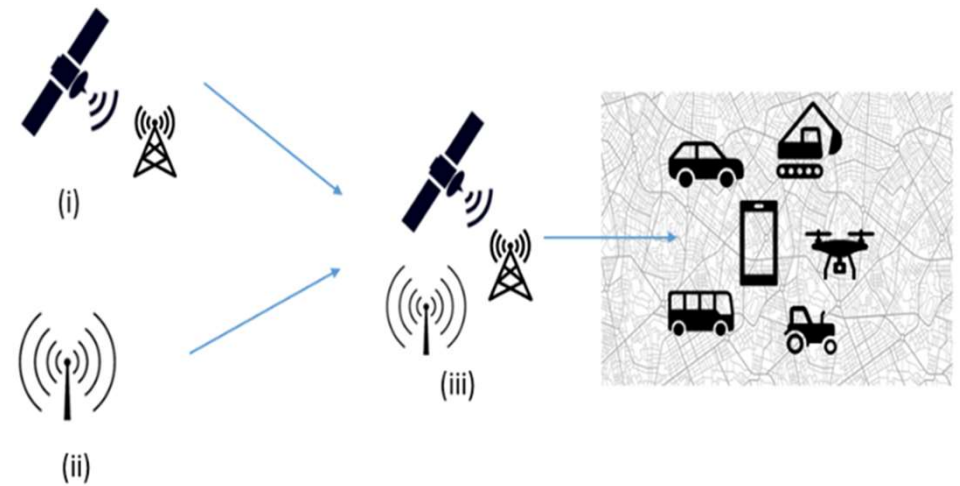


Figure (i) GNSS with the Norwegian Mapping Authority's GNSS infrastructure, (ii) mobile network, (iii) hybrid positioning service.

New transformation platform

A new transformation platform will be available online in 2024, where coordinates between the different reference frames can be transformed. The service will include:

- Single transformation
- File transformation supporting the most common formats used for geographical information

Finn riktige koordinater

Her kan du raskt og enkelt regne om koordinater fra ett koordinatsystem til et annet.

Fra koordinatsystem

Referansesystem	Koordinatsystem	Høydesystem	Sone
Koordinat	Koordinat	Høyde	Tid

Til koordinatsystem

Referansesystem	Koordinatsystem	Høydesystem	Sone
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Transformer

Transformerte koordinater

Koordinat	Koordinat	Høyde
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The VLBI scale issue in ITRF2020

The increasing uplift in Ny-Ålesund can partly explain the VLBI scale issue in ITRF2020 due to mass changes (melting glaciers).

The uplift in Ny-Ålesund for a 5-year moving window has doubled since 2000

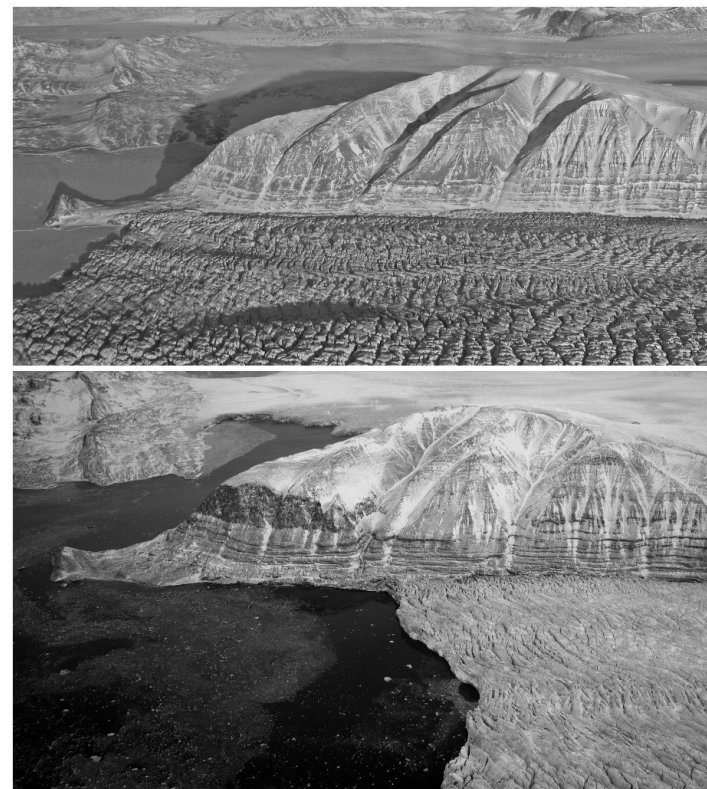
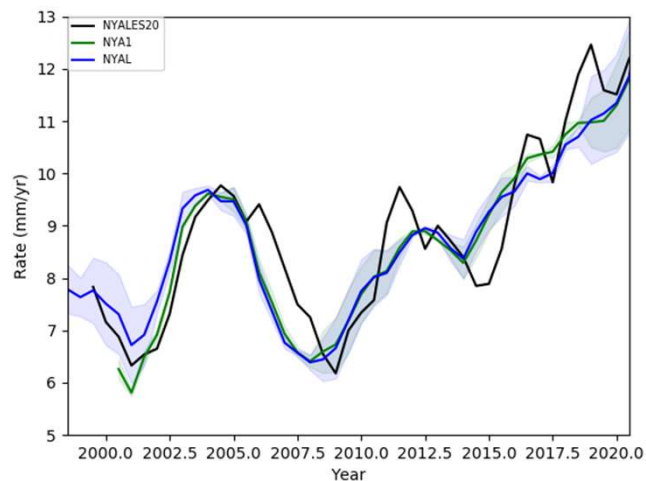


Photo: Bjørn-Owe Holmberg