PHOTO: BJØRN-OWE HOLMBERG

**The Ny-Ålesund Geodetic Observatory was established in 1993. The Norwegian Mapping Authority (NMA) is in the process of upgrading the observatory in Ny-Ålesund to a core network station within the Global Geodetic Observing System (GGOS). This means to adapt to the VLBI2010 standard and to extend our activity to integrate SLR. The Norwegian government has allocated funds to the modernization of the observatory.**

# UPGRADING TO A CORE NETWORK STATION IN NY-ÅLESUND, SVALBARD

## Project Plan

The project plan is dependent on a final approval from the authorities. More details will be clarified in May 2012. So far the new antennas and the SLR are planned to be operational in 2018, and the old antenna to be removed in 2021.

PHOTO: BJØRN-OWE HOLMBERG

## Components

- VLBI2010 Twin telescopes
- SLR
- Absolute gravimeter point
- Super conducting gravimeter (existing)
- GNSS (existing)
- Tide gauge (existing)
- DORIS (existing, operated by AWI-IPEV)

## The Ny-Ålesund observatory plays a key role

As the only observatory so far to the north, the station in Ny-Ålesund enhances the level of precision both in the Arctic and for integrated global solutions.

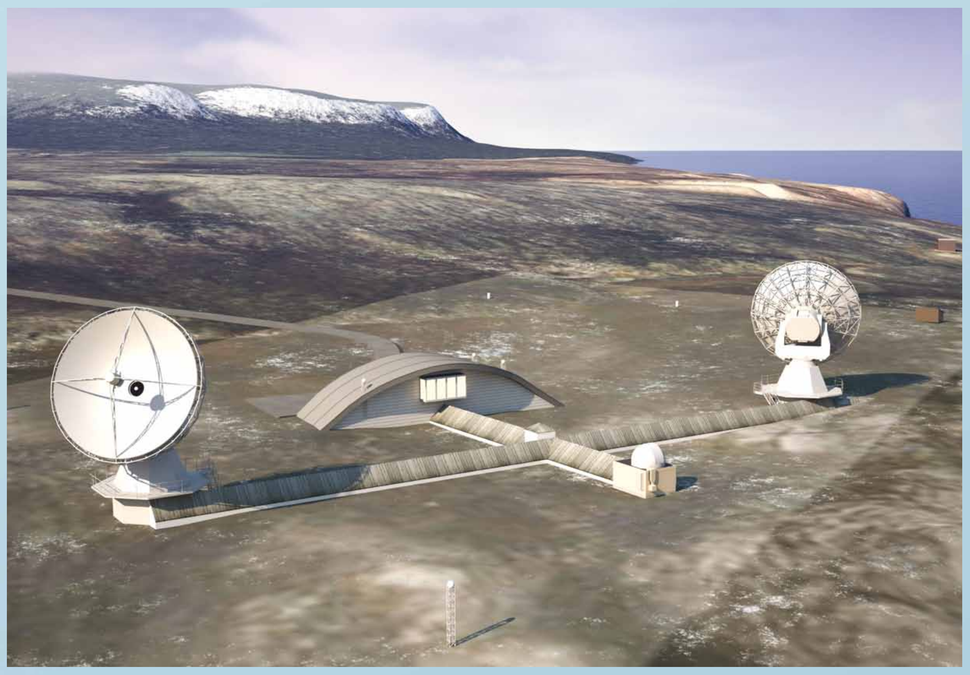
## Fiber optic cable

The Norwegian government has allocated funds to a fiber optic cable from Longyearbyen to Ny-Ålesund. One of the two landfalls is planned to be nearby the new site of the geodetic observatory. This is scheduled to be available in 2014.

## Ny-Ålesund – an international research base

Situated at 78° 55′ N, 11° 56′ E, Ny-Ålesund has since the mid sixties formed an international research community. The site comprises 11 permanent research stations and researchers from 20 countries. Ny-Ålesund is one of the world's northernmost settlements.
Distance from the Northpole: 1.231 km.

PHOTO: RAMBØLL



The Ny-Ålesund project will advance the Ny-Ålesund Geodetic Observatory to the status of a core network station. A fundamental or core station combines geodetic measurement techniques at one site. This approach is advanced by the Global Geodetic Observing System to reduce errors between the complementary geodetic techniques.


The observatory in Ny-Ålesund is the only one in the global network of such installations located so far to the north. An new core network station will make a particular contribution to increased accuracy in the high north, where the effects of climate change can be recorded earliest and most clearly.

NORWEGIAN MAPPING AUTHORITY