



Kartverket

Status

Establishment of a new core site in Ny-Ålesund

ILRS Conference, Annapolis October 2014



Photo: Bjørn Owe Holmberg

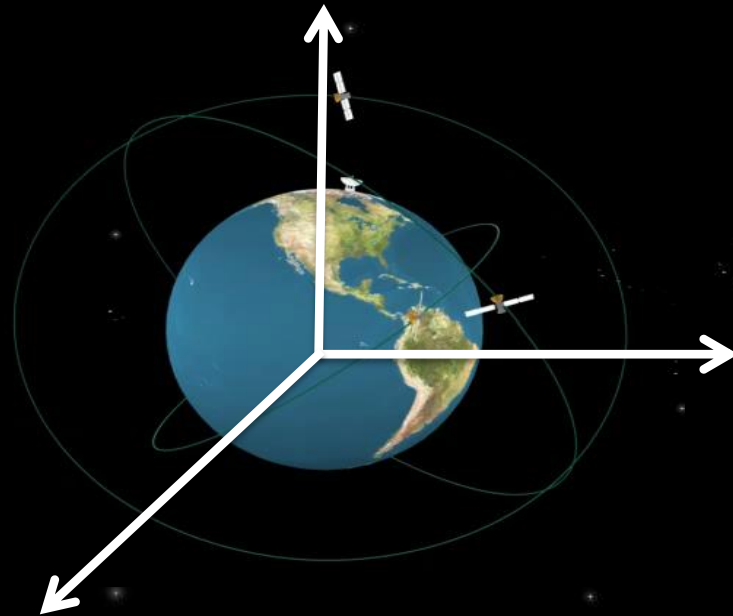
Motivation:

A global geodetic reference frame that supports the future needs for monitoring effects of climate change

The goal

Obtain a long term stable reference frame with an accuracy of 1 mm with an stability of 0.1 mm /year.

Improved precision and consistency in the orbit determination of earth observations satellites





Ny-Ålesund, October 2014

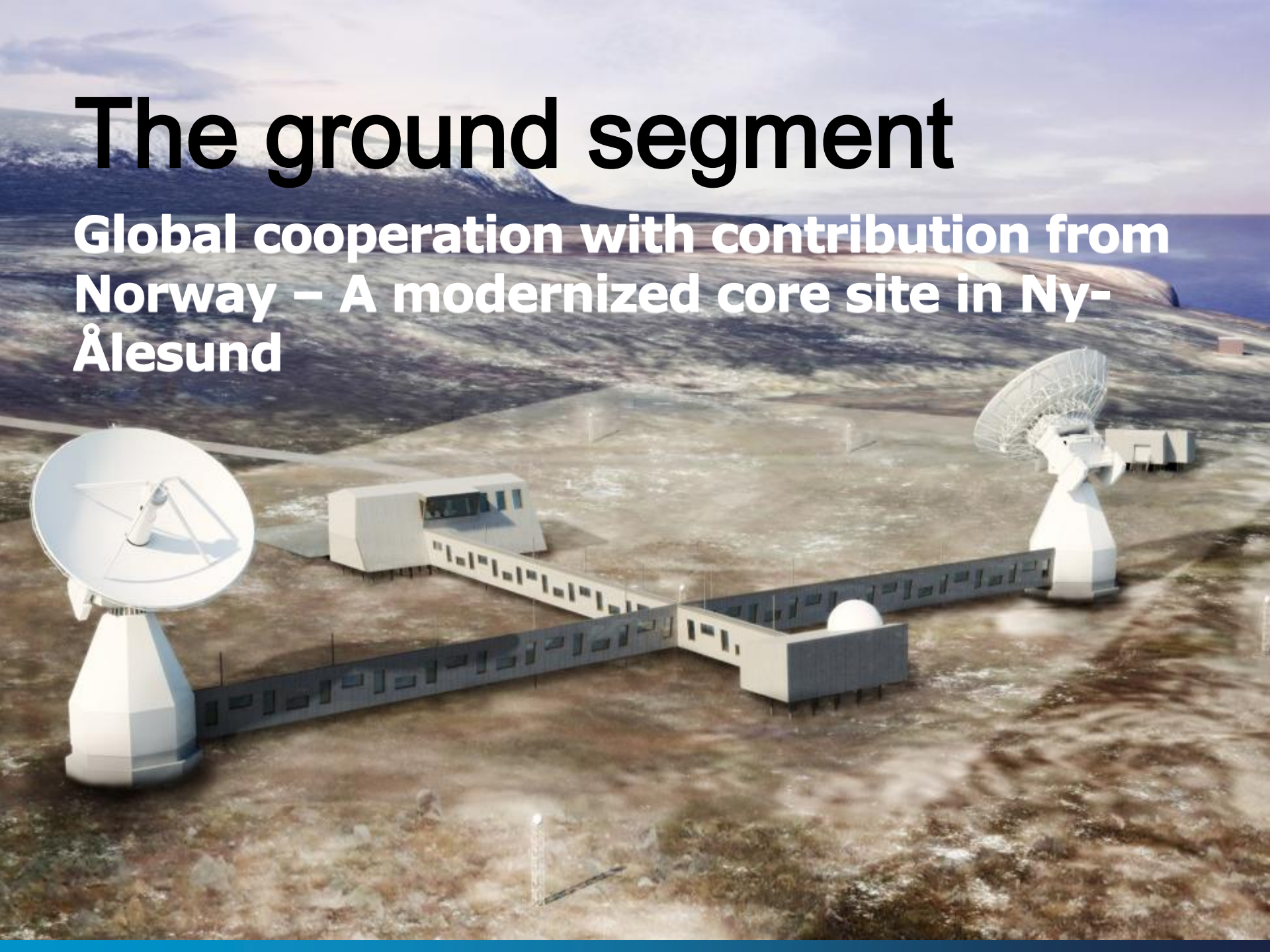
Photo: Bjørn Owe Holmberg

The space segment



The ground segment

Global cooperation with contribution from Norway – A modernized core site in Ny-Ålesund



The analysis segment

Global cooperation with contribution from Norway – Combined computations in Geosat



December 2011: The Norwegian Government decided to turn the Geodetic Observatory in Ny-Ålesund into a GGOS core site



Photo: Bjørn Owe Holmberg

**....equipped with 2 VGOS telescopes,
SLR, GNSS, Doris, gravimeter and
tide gauge.**



The new station area, October 2014



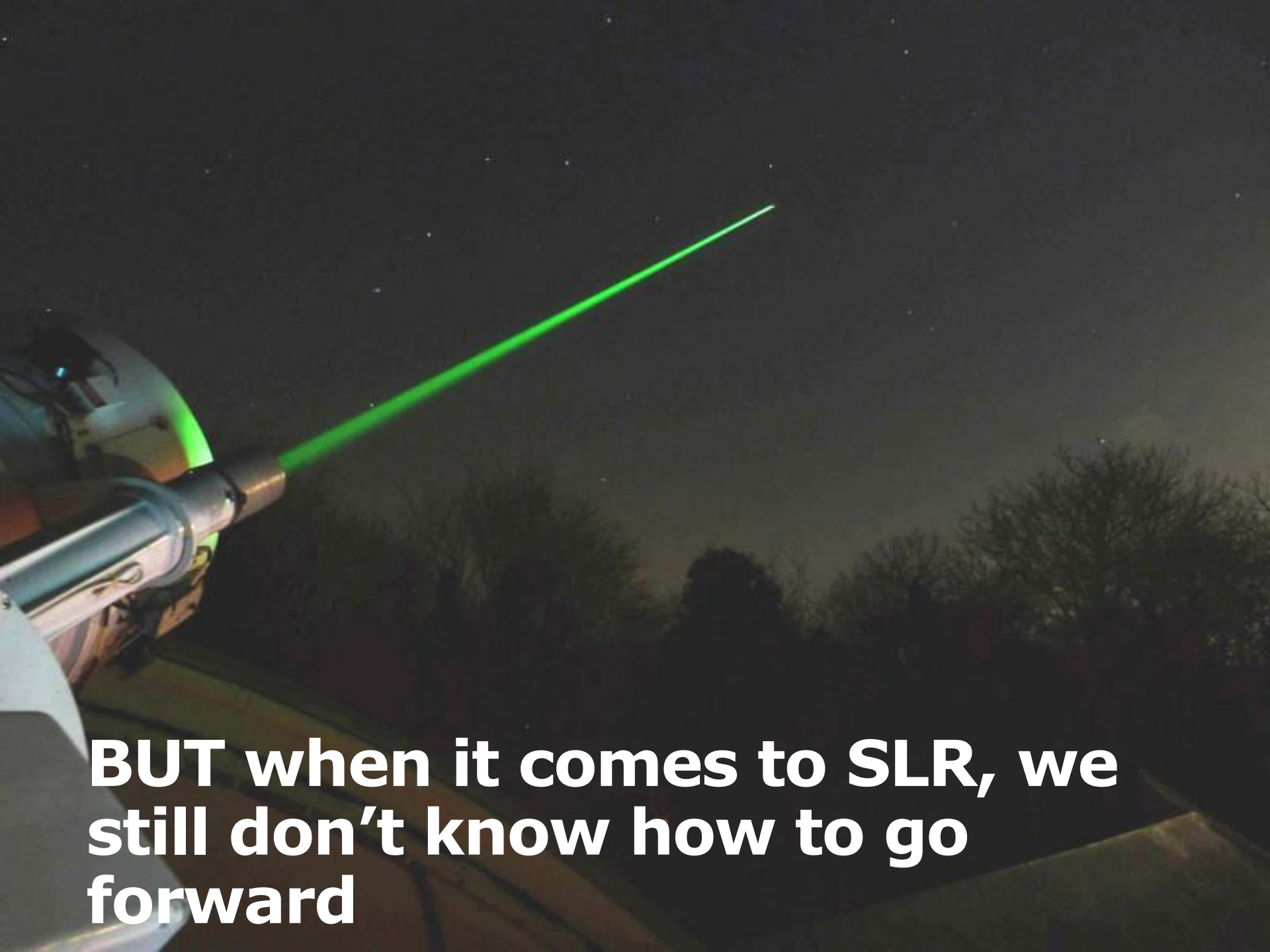


Start of construction, October 2014

Foto: Bjørn-Owe Holmberg

Accordant to current planning the VGOS telescopes will be in operation from 2018



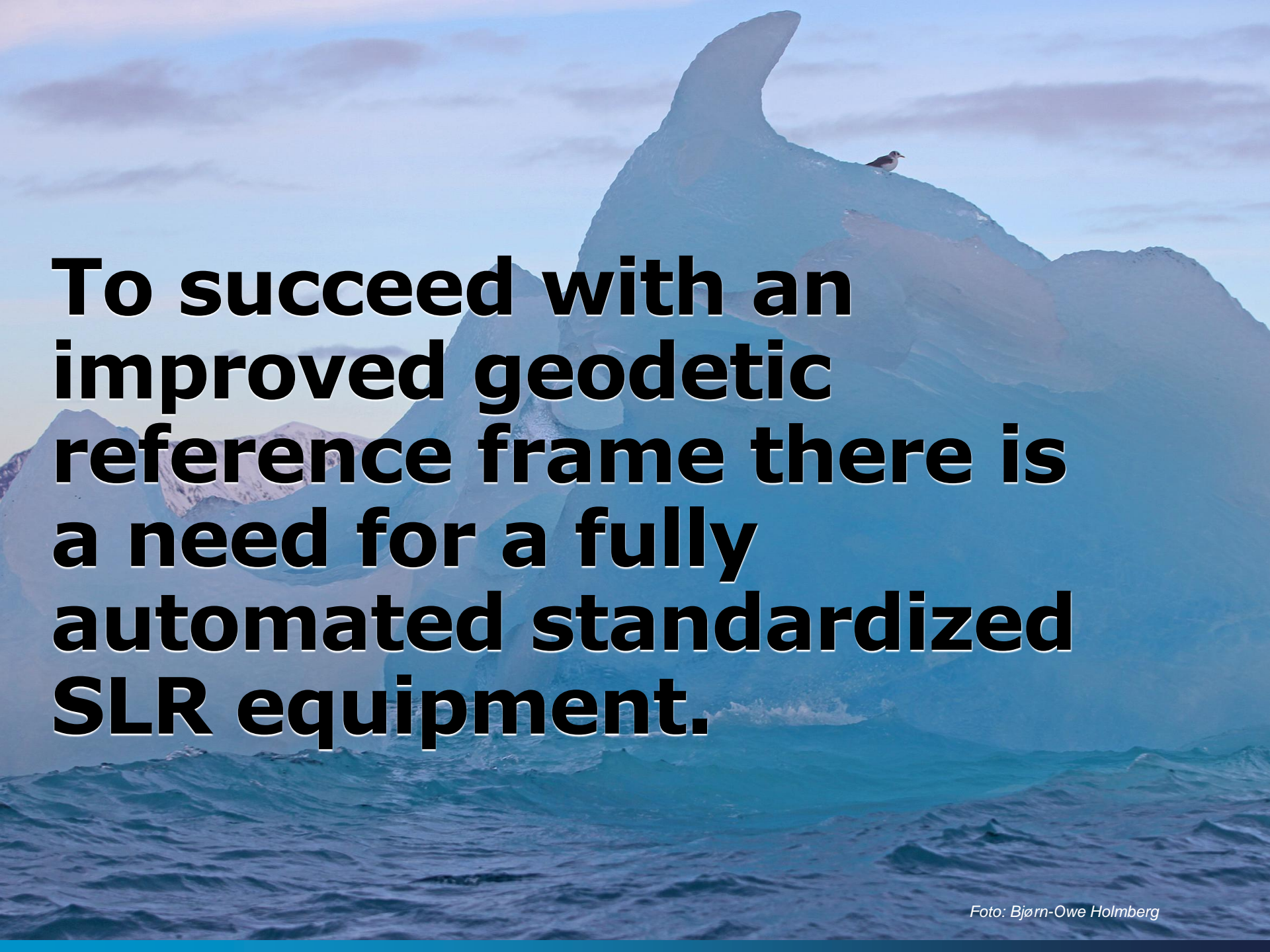


BUT when it comes to SLR, we still don't know how to go forward

Challenges:

- Ny-Ålesund is a remote place
- A SLR fundament will be in place from autumn 2015
- The funds for the SLR equipment is currently available
- That fully automated equipment that we need is not available, and we do not know when that will happen





To succeed with an improved geodetic reference frame there is a need for a fully automated standardized SLR equipment.