

**Professor in
physical geography
Svein Olaf Dahl**



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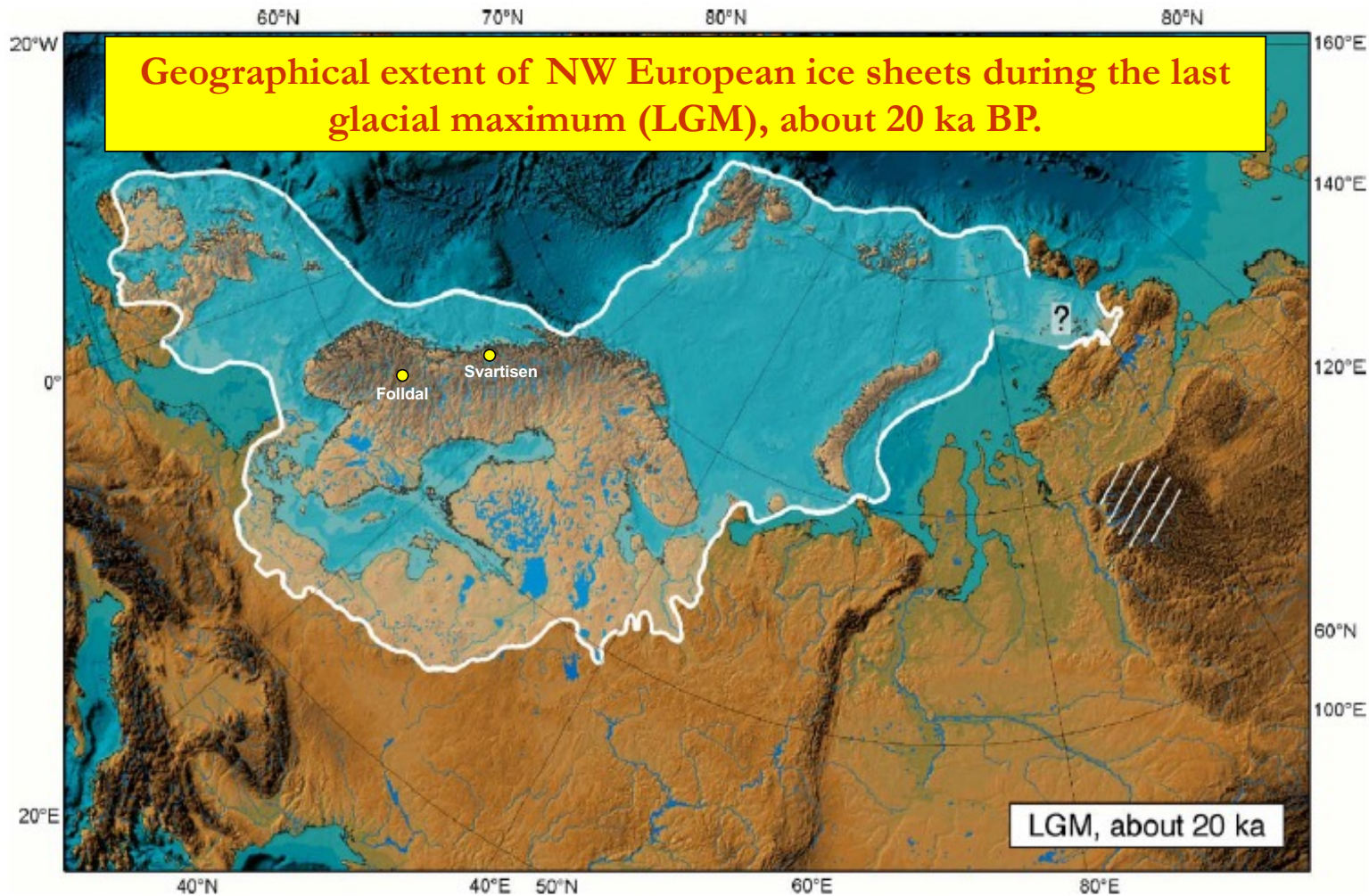
**Austerdalsisen at
Svartisen July
2020.
Photo: S.O. Dahl**

Research interests:

- Glacier fluctuations and glacier-climate interactions during the Little Ice Age, the Holocene, the last deglaciation, and the Weichselian are analyzed using lake sediments, aeolian deposits, stratigraphical investigations, and Quaternary geological mapping.
- Glacier-ocean interaction
- River floods / glacier lake outburst floods (GLOFs) and related sediments and landforms.
- Colluvial processes and related landforms
- Periglacial processes and related landforms.

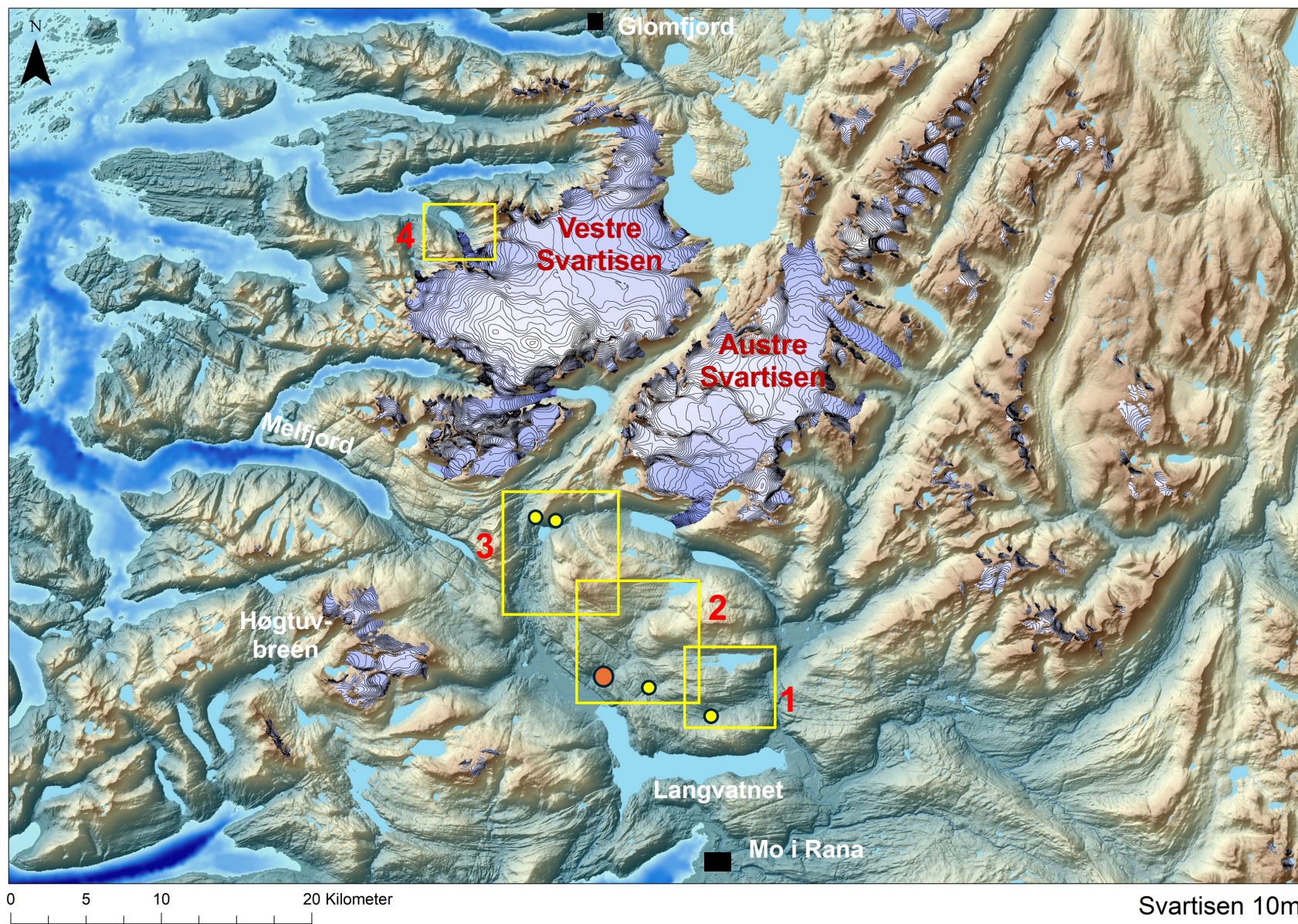
**New master projects in physical geography
autumn 2025**

Svein Olaf Dahl



After Svendsen et al. (2004)

Overview map showing
localization of new master
projects in physical
geography autumn 2025 -
Svein Olaf Dahl



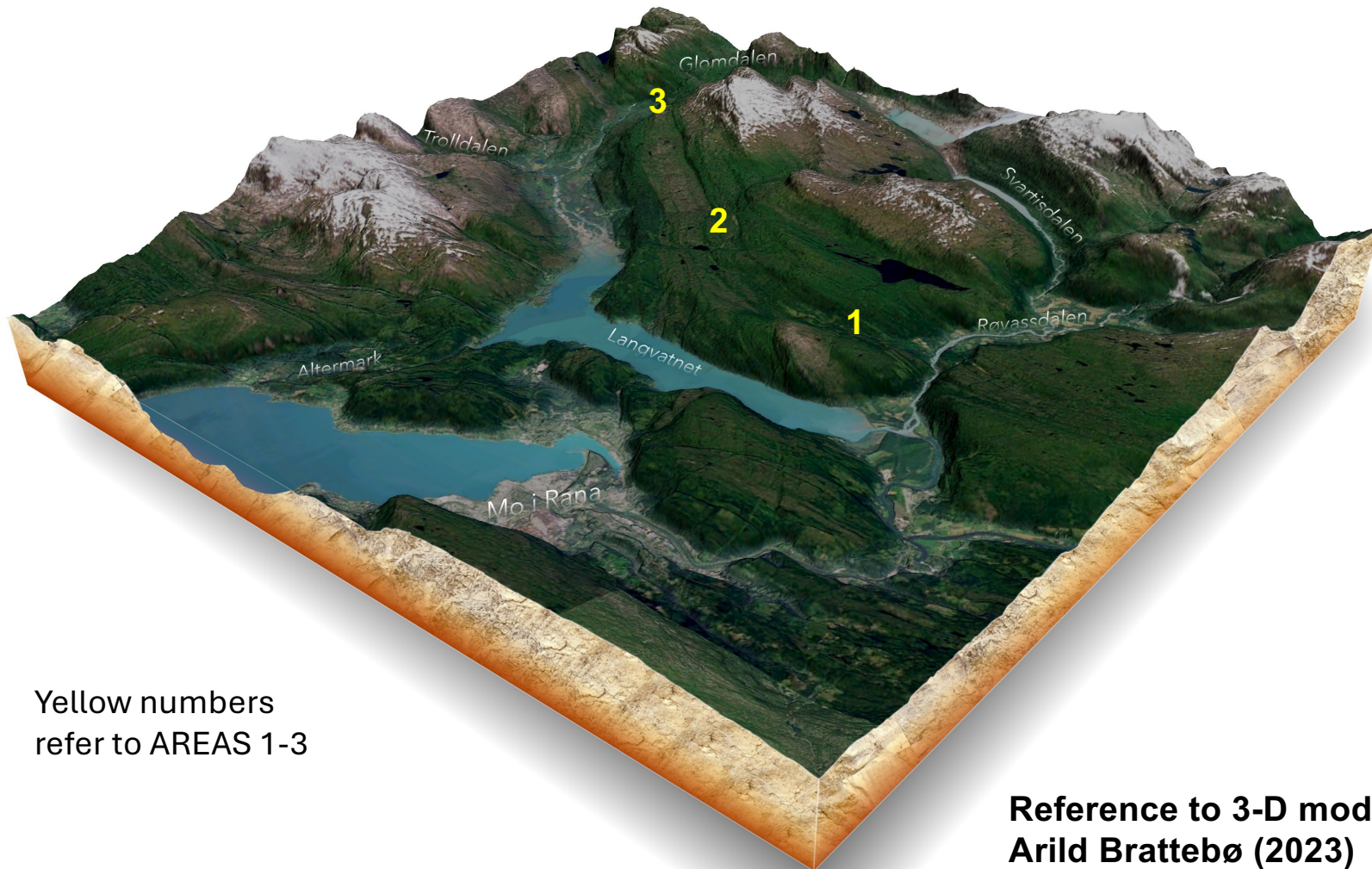
Svein Olaf Dahl:
New potential master projects in physical geography at Svartisen Autumn 2025:

1. Bjørnvassdalen
=> **1** master project
2. Ramså-Svanåvatnet-Raudsandaksla
=> **1** master project
3. Glomdalsvatnet – lower Vesterdalen
=> **1** master project
4. Engabreen – glacial ripping - origin of «Hanibal rock»
=> **1** master project

● «Field station»

● Lake/bog to be cored

3-D overview of area with master projects in physical geography north of Langvatnet, south of Svartisen



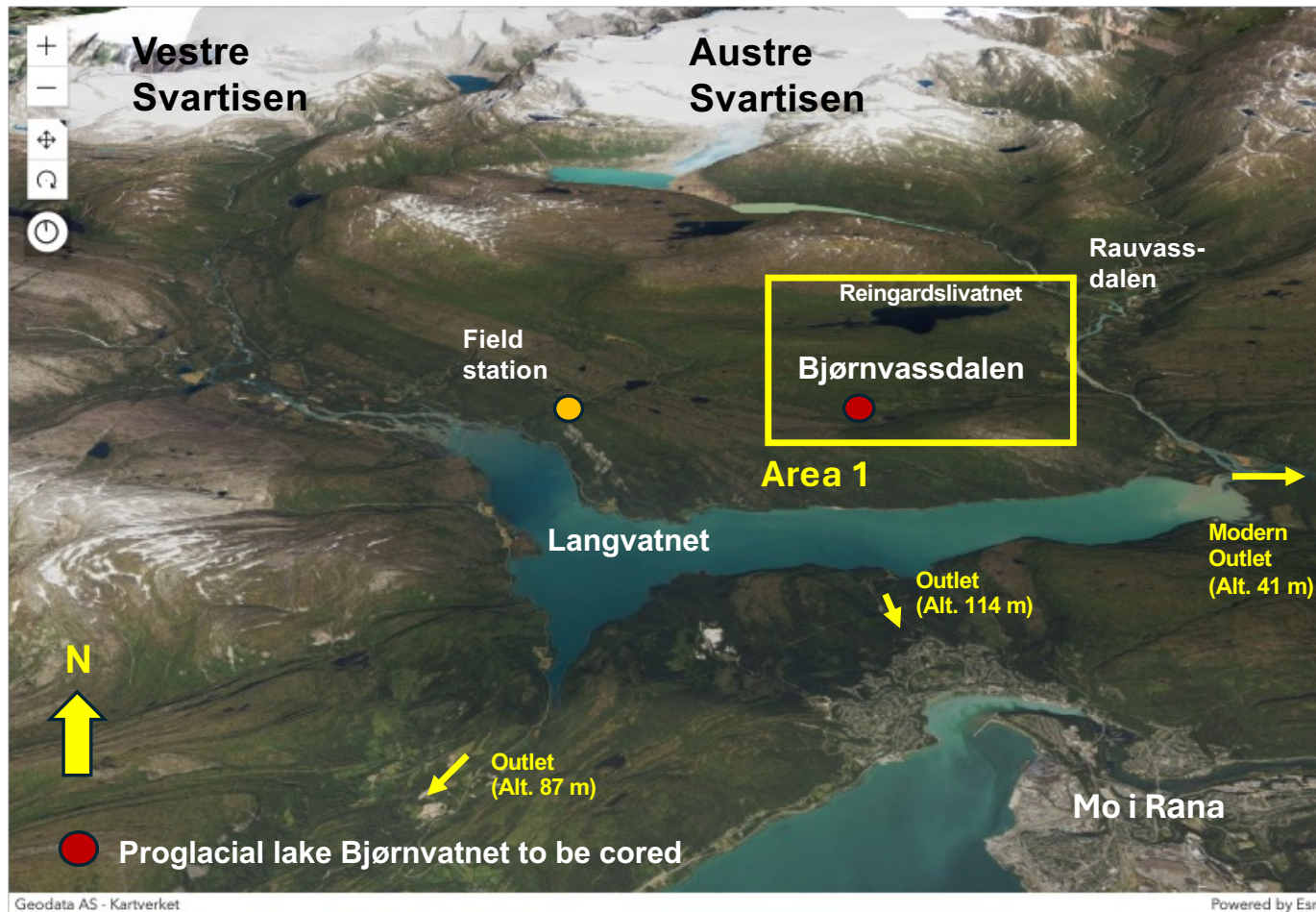
Yellow numbers
refer to AREAS 1-3

Reference to 3-D model:
Arild Brattebø (2023)

One master project in physical geography:

Glacier, climate and sea level history in Bjørnvassdalen S-SE of Svartisen.

Supervisors: Svein Olaf Dahl (Svein.Dahl@uib.no) & Kristian Vasskog



Methods: LIDAR, air photos GIS, drone, Quaternary geological mapping, coring, sedimentological/stratigraphical investigations. Fieldwork ca. 3-4 weeks. Car an advantage.

Dating: AMS 14C dating,

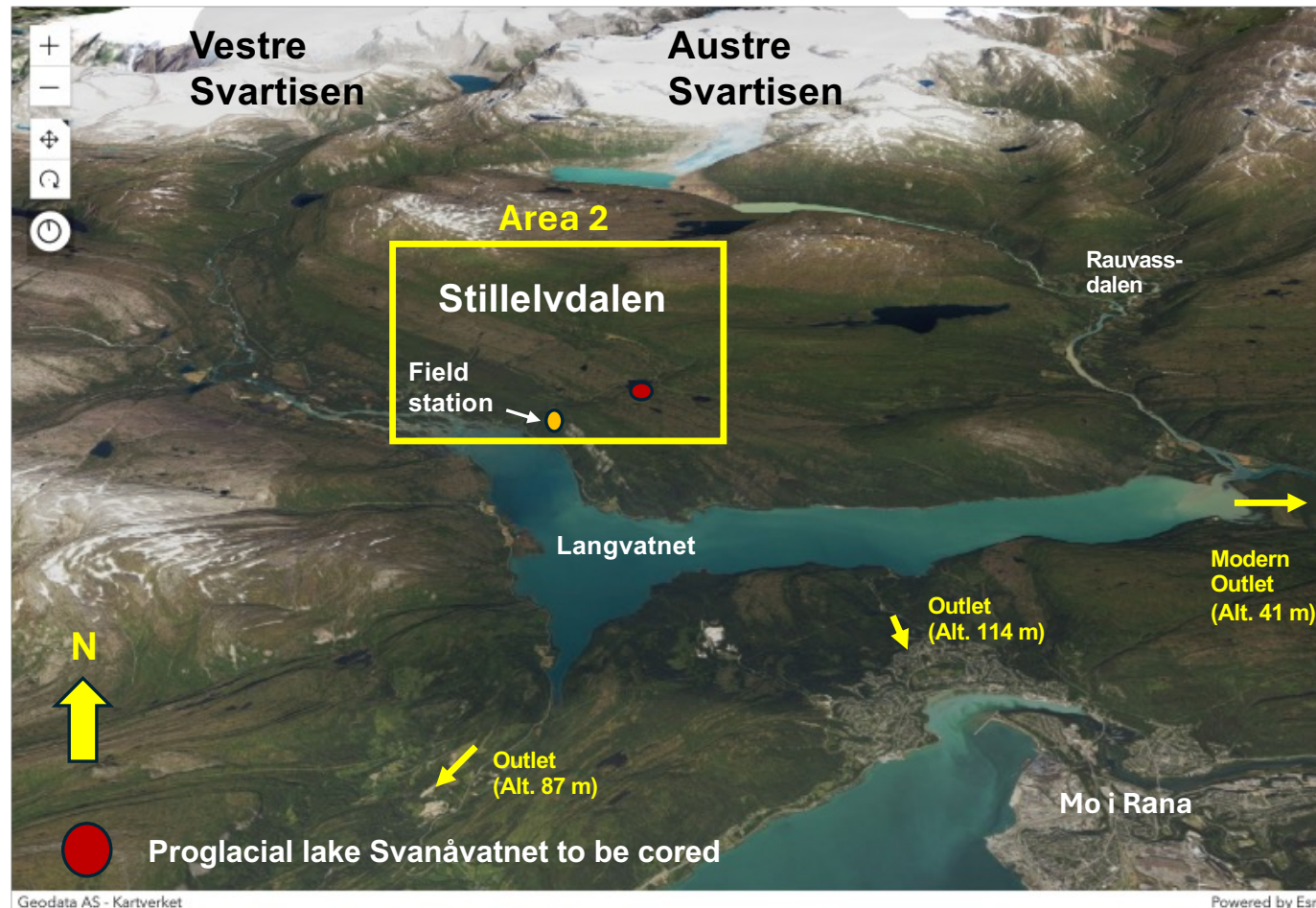
Main Objectives:

By use of Quaternary geological mapping of marginal moraines/ glaciofluvial deltas/glacio-lacustrine sediments, multi-proxy sediment analysis and dating of sediment cores from proglacial lake, reconstruct glacier/climate fluctuations and sea-level history during the early- to mid Holocene in Bjørnvassdalen-Reingardslivatnet towards Rauvassdalen.

One master project in physical geography:

Glacier and climate history in the Ramså-Svanåvatnet-Rausandaksla-Stillelvdalen area S-SE of Svartisen.

Supervisors: Svein Olaf Dahl (Svein.Dahl@uib.no) & Kristian Vasskog



Methods: LIDAR, air photos GIS, drone, quaternary geological mapping, coring, sedimentological/ stratigraphical investigations. Fieldwork ca. 3-4 weeks. Car an advantage.

Dating: AMS 14C dating,

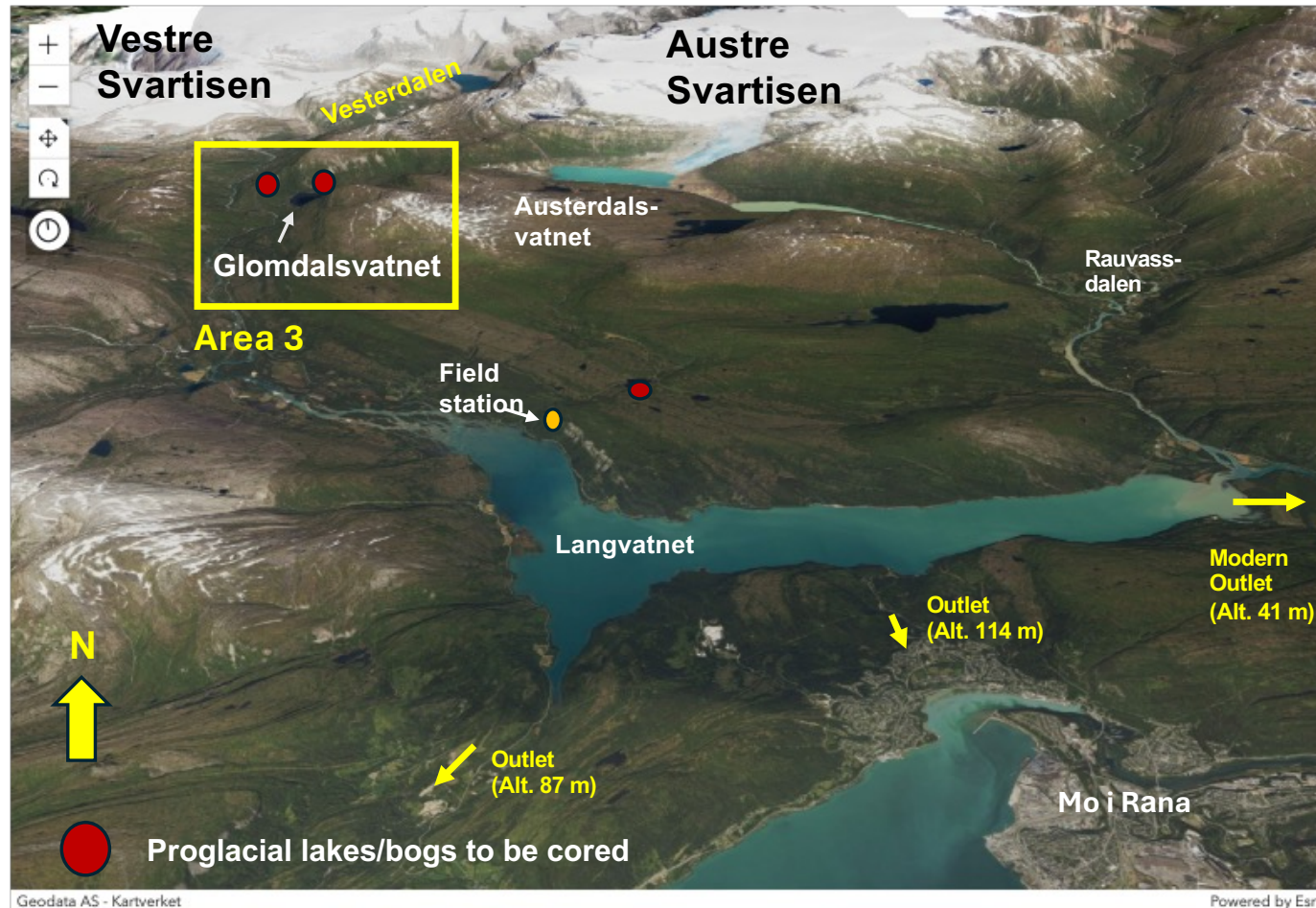
Main Objectives:

By use of Quaternary geological mapping of marginal moraines/ glaciofluvial deltas/glacio-lacustrine sediments, multi-proxy sediment analysis and dating of sediment cores from proglacial lake, reconstruct glacier and climate history during the early- to mid Holocene in the Ramså-Svanåvatnet-Rausandaksla-Stillelvdal area.

One master project in physical geography:

Glacier and climate history in the Glomdalsvatnet-Vesterdalen area South of Svartisen.

Supervisors: Svein Olaf Dahl (Svein.Dahl@uib.no), Rannveig Skoglund & Kristian Vasskog



Methods: LIDAR, air photos GIS, drone, quaternary geological mapping, coring of bogs and lakes, sedimentological/ stratigraphical investigations. Fieldwork ca. 3-4 weeks. Car an advantage.

Dating: AMS 14C dating

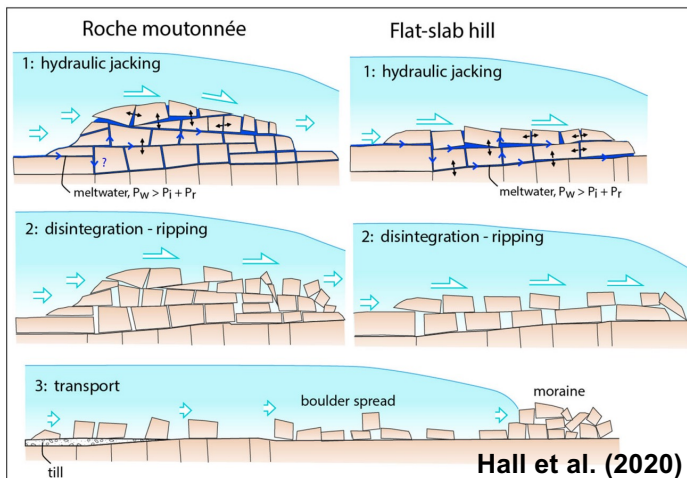
Main Objectives:

By use of Quaternary geological mapping of marginal moraines/ glaciofluvial deposits, multi-proxy sediment analysis and dating of sediment cores from proglacial lakes and bogs, reconstruct glacier and climate history during the early-, mid- and late Holocene in the Glomdalsvatnet-Vesterdalen-Austerdalsvatnet area.

One master project in physical geography:

«Glacial ripping» and the origin of «Hannibal Rock» («Kaiser Wilhelm II Stein») in the Engabreen glacier foreland, Vestre Svartisen.

Supervisors: Svein Olaf Dahl (Svein.Dahl@uib.no), Rannveig Skoglund



The «Hannibal Rock» («Kaiser Wilhelm II Stein») is part of Engabreen's outermost «Little Ice Age» terminal moraine. It may be associated with the first local settler, Hannibal, who lived on the farm Storsteinøren. The advancing glacier destroyed the farm.

Sunniva Svendsen for scale.
Photo: Svein Olaf Dahl

Methods: LIDAR, air photos GIS, drone, historical evidence, quaternary/rock geological mapping, and provenance studies. Fieldwork ca. 3-4 weeks. Car an advantage.

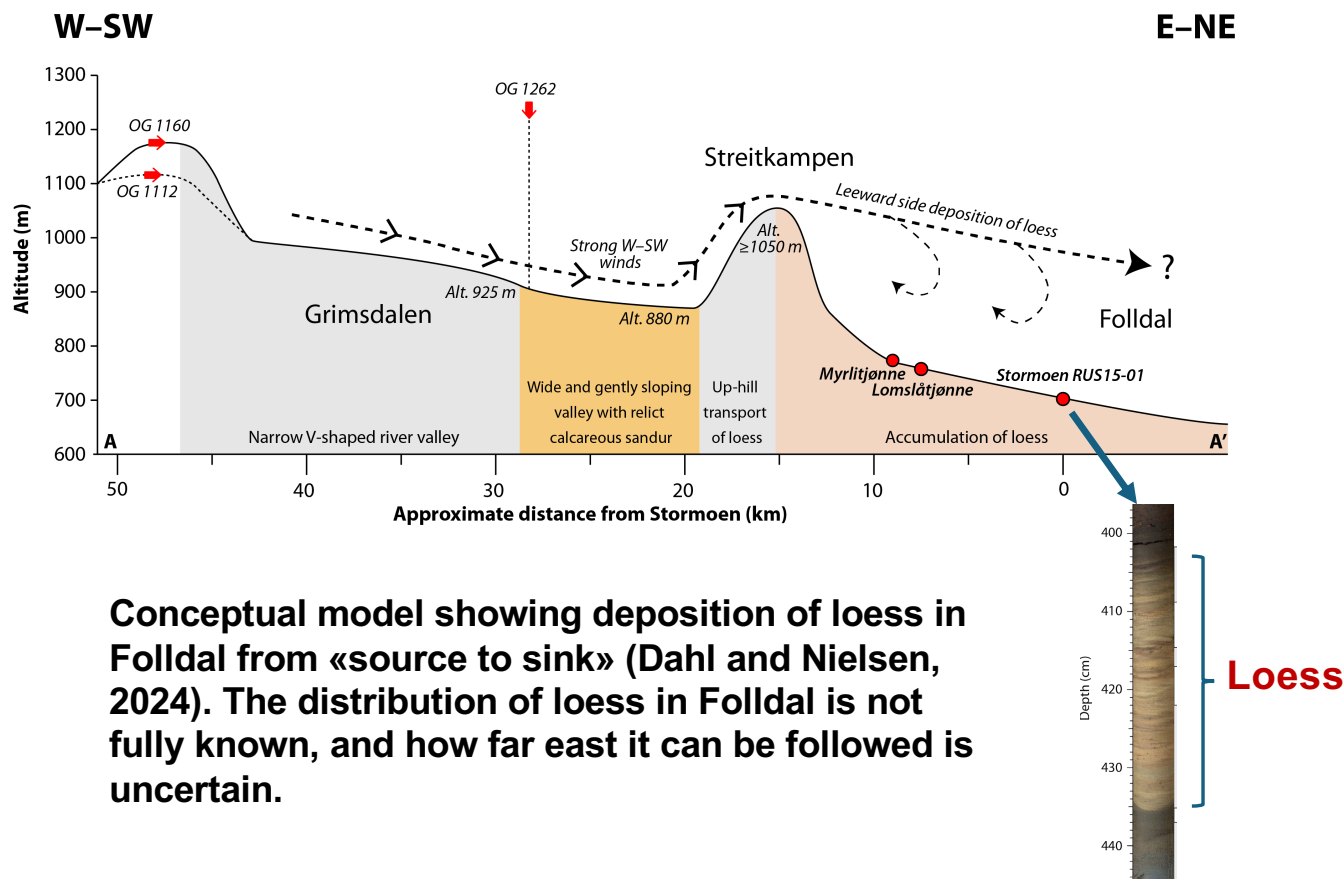
Dating: Lichenometry, historical evidence, 14C dating

Main Objectives: Using Quaternary and rock geological mapping, provenance studies, and dating, investigate the effect of «glacial ripping» and the possible origin of «Hannibal Rock» in the glacier foreland of Engabreen, Vestre Svartisen.

One master project in physical geography:

The Holocene distribution and timing of loess deposition in Folldal, Innlandet, east-central southern Norway

Supervisors: Svein Olaf Dahl (Svein.Dahl@uib.no), Pål Ringkjøb Nielsen



Conceptual model showing deposition of loess in Folldal from «source to sink» (Dahl and Nielsen, 2024). The distribution of loess in Folldal is not fully known, and how far east it can be followed is uncertain.

Methods: Quaternary geological mapping, provenance studies, stratigraphy/logging, Russian peat coring, sediment proxies (Loss-On-Ignition (LOI), Dry Bulk Density (DBD), XRF, grain-size distribution etc.

Fieldwork ca. 3-4 weeks.

Car an advantage.

Dating: ^{14}C dating, OSL-dating

Main Objectives:

Using Quaternary geological mapping, provenance studies, section logging, bog coring, and dating to investigate the deposition, distribution and timing of loess accumulation in Folldal, Innlandet, during the Holocene.