

Svalbard **Rock Vault**

MOTIVATION

Svalbard's geological record offers unparalleled opportunities to decipher deep-time paleoclimate variations. Research and coal exploration boreholes have penetrated numerous stratigraphic areas of interest unfortunately not all such material is easily accessible. The Svalbard Rock **Vault** initiative aims to safeguard existing material, and act as a hub for future deep-time paleoclimate research in Svalbard.

THE SVALBARD ROCK VAULT

The Svalbard Rock Vault (SRV) initiative was initiated by the University Centre in Svalbard (UNIS) and the Norwegian coal mining company Store Norske Spitsbergen Kulkompani (SNSK) in 2018 in order to safeguard geological material in turbulent times in Svalbard. UNIS and SNSK both own significant amounts of drill core material, and are in addition aware of numerous other data sources of both drill cores, samples and archive material. An open workshop was held in Longyearbyen in September 2018 with key stakeholders with relevant research history in Svalbard, and a follow up pilot project, SRV2020, is running from 2019 to summer 2021 with the aim to:

- safeguard the geological heritage (e.g., drill cores) from Svalbard from being lost during the turbulent times associated with a rapid decrease in coal mining activity

- facilitate geoscientific co-operation on Svalbard through allowing better access to physical geoscientific material as well as geoscientific data as

- both for existing data sets and also for data sets originating from future research activity on Svalbard, in particular deep-time paleoclimate studies as exemplified by the P-T boundary research drilling at Deltadalen

WHY TAKE CARE OF CORES?

Drill cores are expensive - SNSK's material for instance is worth 600 million NOK, while UNIS' material cost about 100 million NOK. Taking care of both drill cores and associated data (reports, geochemical analyses, subsurface data etc.) is crucial in order to:

- Safeguard valuable material
- Avoid unnecessary double-sampling
- Foster and facilitate additional research
- Bring together international geoscientists working with Svalbard Environmental considerations
- Allow geoscientific research about restricted areas
 - Reduce environmental impact
 - Training, education and outreach
- Enable good science due to reproducibility

How not to take care of cores...



How to take care of cores...



ndalen core storage, Longyearby



Filling the Svalbard Rock Vault: **Opportunities for deep-time paleoclimate studies**

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