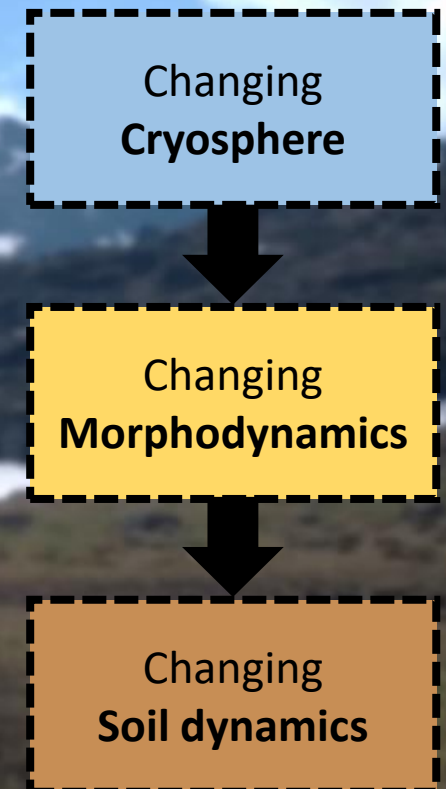
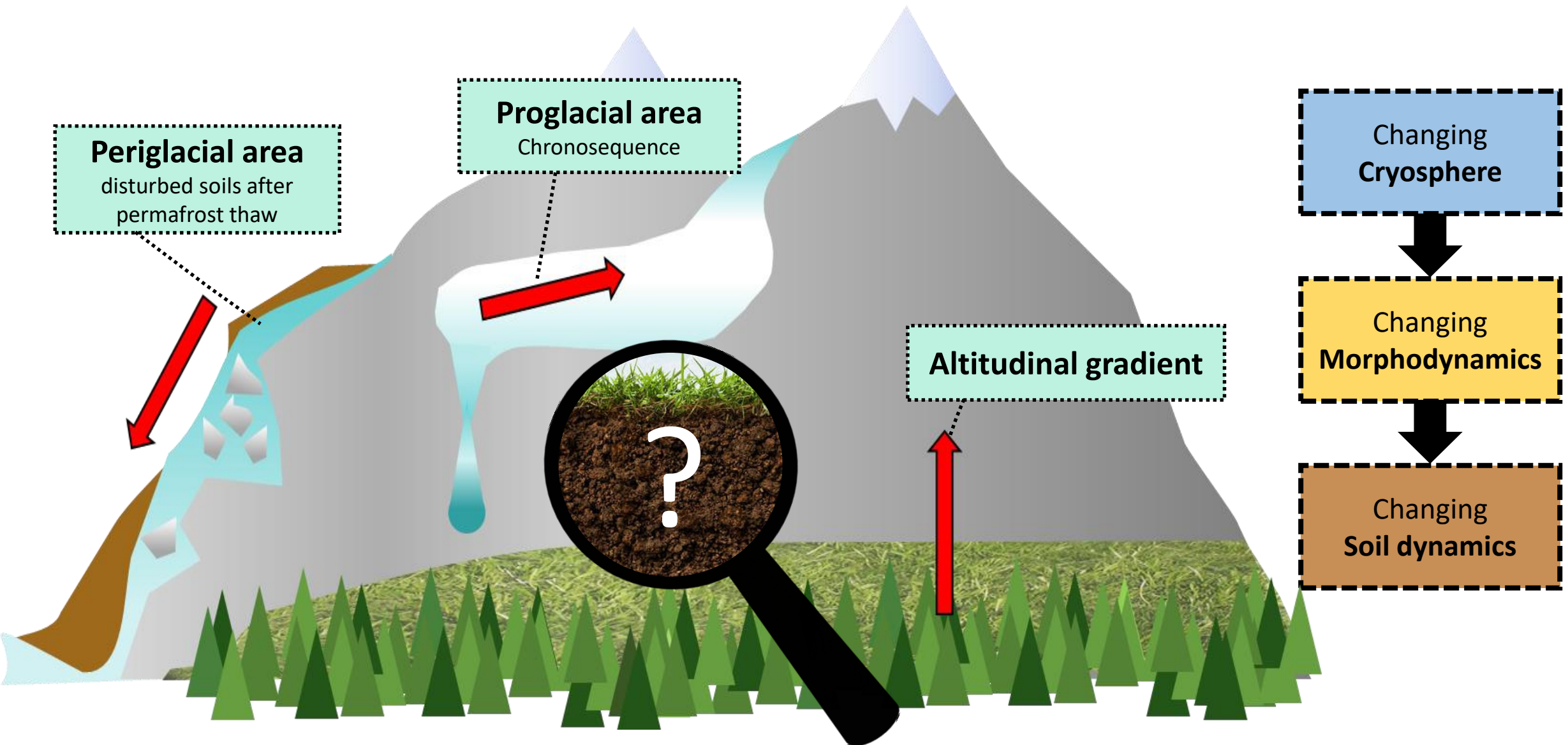


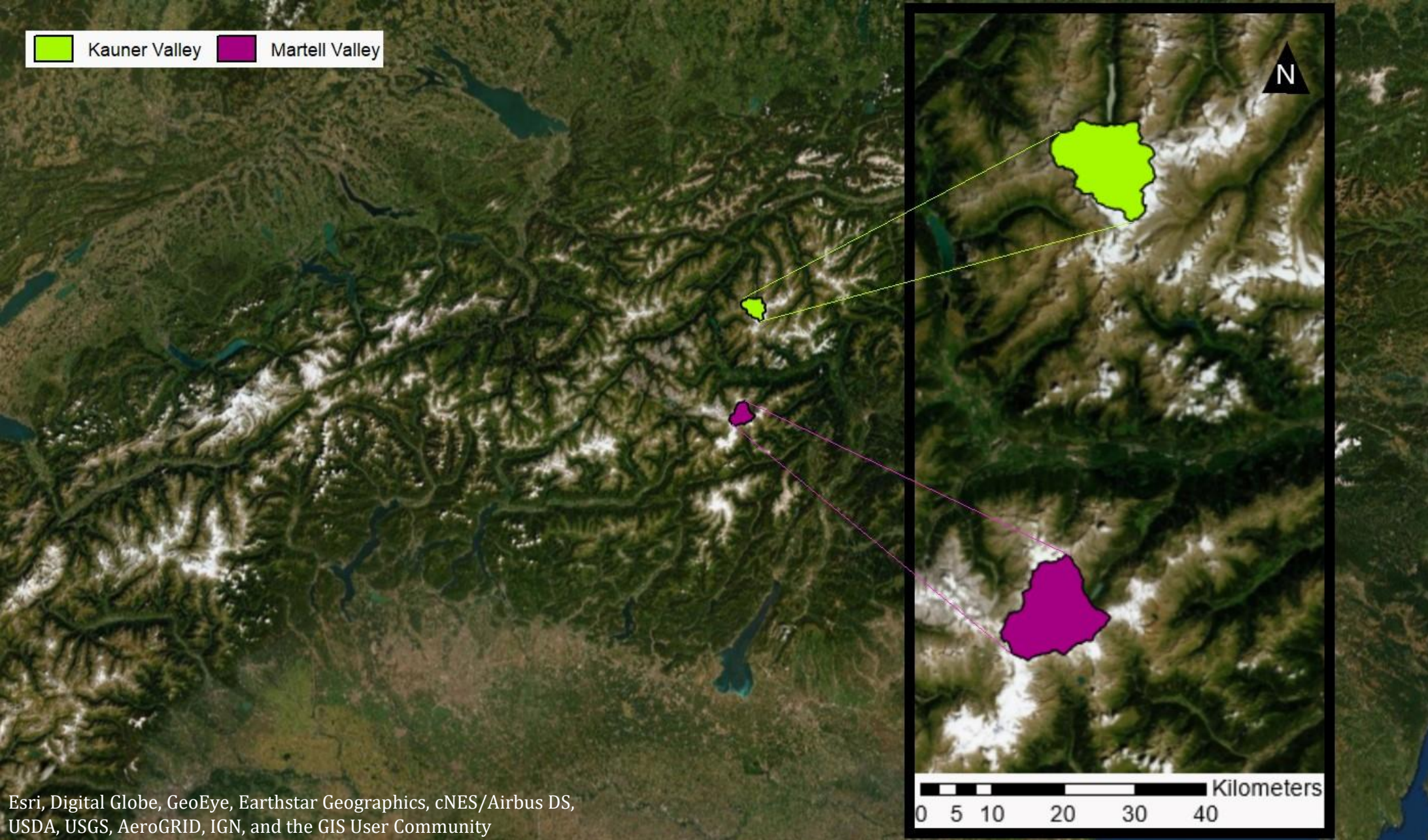
High mountain soils in a changing cryosphere

Müller, Svenja; Knoflach, Bettina; Deisenrieder, Bettina;
Illmer, Paul; Keller, Lars; Stötter, Johann; Geitner, Clemens

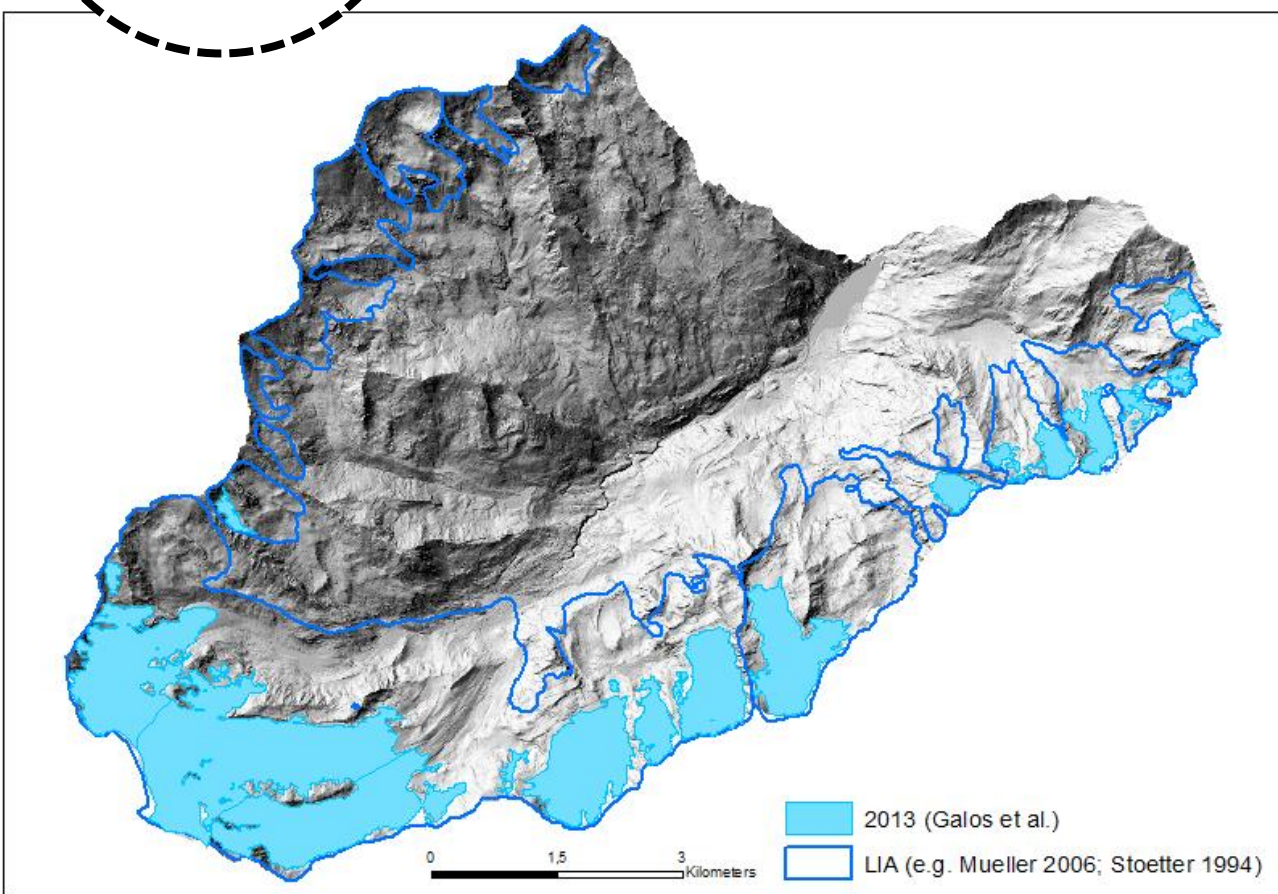




Study sites in the Central Alps: Upper Kauner and Martell Valley



Esri, Digital Globe, GeoEye, Earthstar Geographics, cNES/Airbus DS,
USDA, USGS, AeroGRID, IGN, and the GIS User Community



Which morphodynamics are caused by the changing cryosphere?

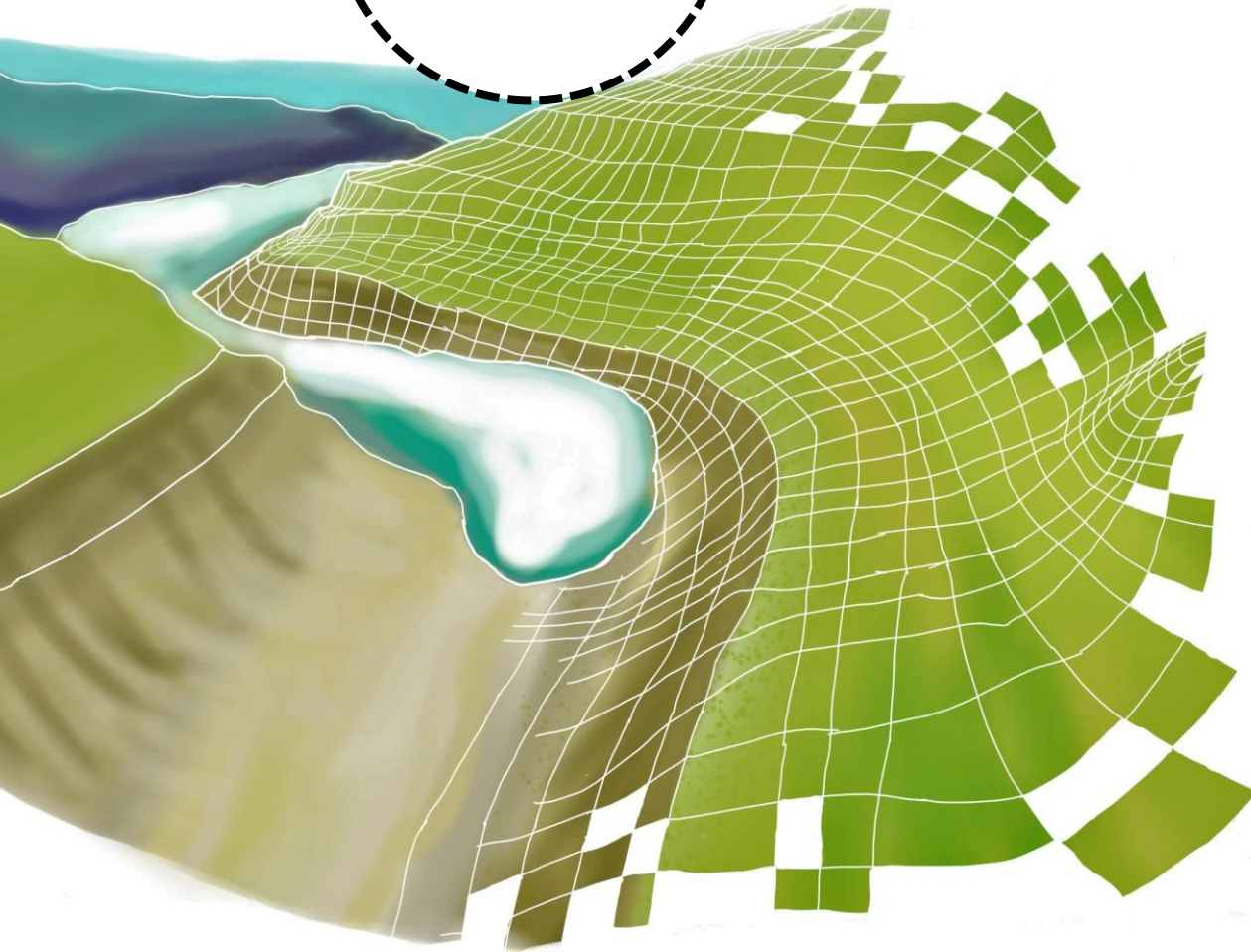
Spatial and temporal reconstruction of

- permafrost probability
 - glacier change
- since the LIA

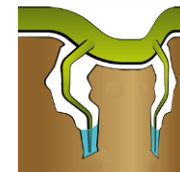
AOI: 62 km²

Glacier 2006: 20,6 km² (Fischer et al.)

Glacier LIA: 33,8 km² (Groß et al.)

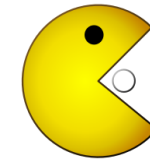


How are plant-relevant soil functions impacted by cryosphere-related geomorphodynamics?



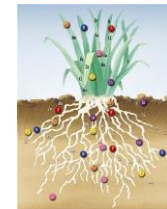
Soil microclimate

- Water potential
- Temperature



Functional diversity

- Enzyme activity
- Litter decomposition



Nutrient availability

- Ammonia
- Phosphorus
- DOC



Microbiome

- Biomass
- Activity







CryoSoil TRANSFORM