

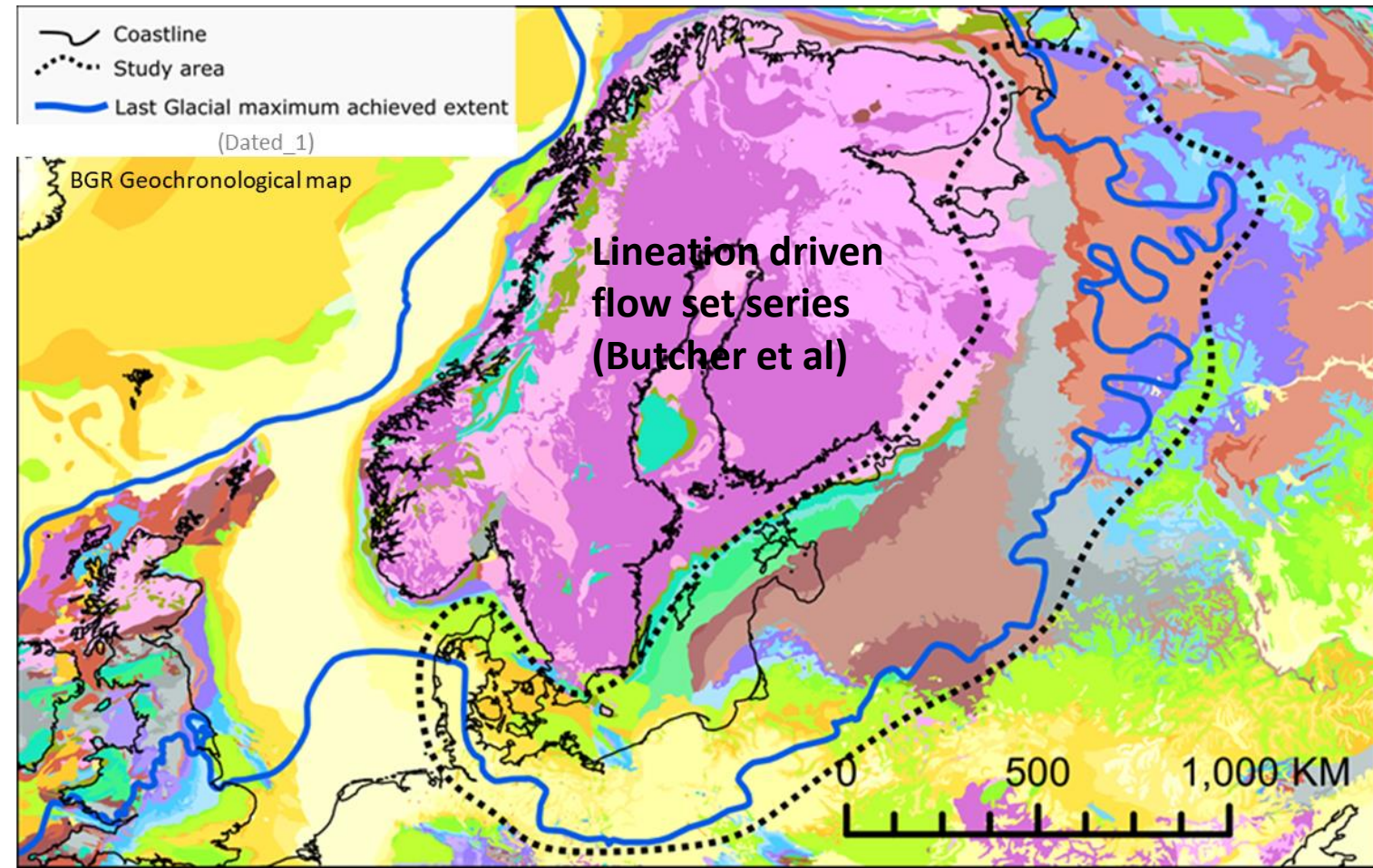
Spatially continuous landform driven reconstruction of marginal retreat dynamics of the Southern and Eastern sectors of the last Fennoscandian Ice Sheet, beyond the hard bedrock shield

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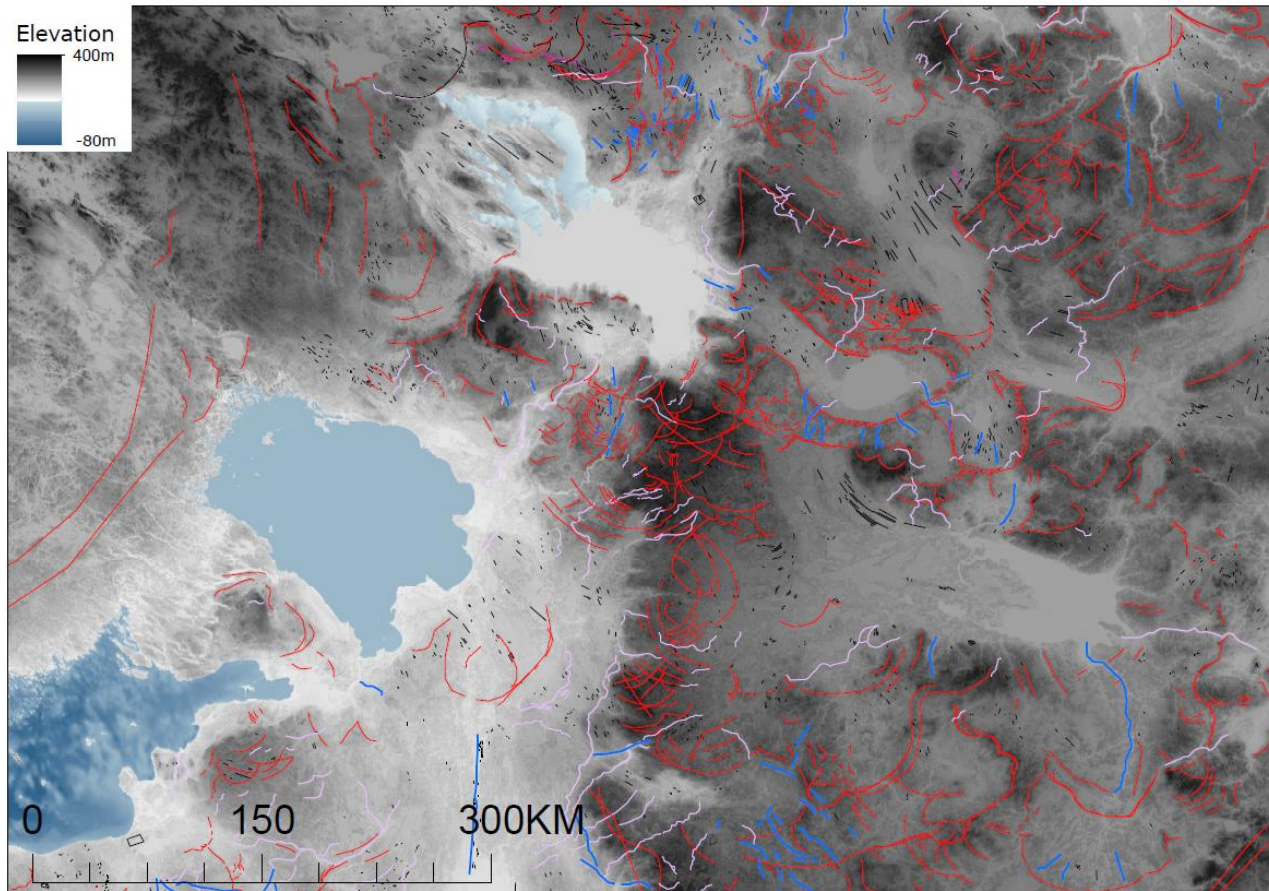
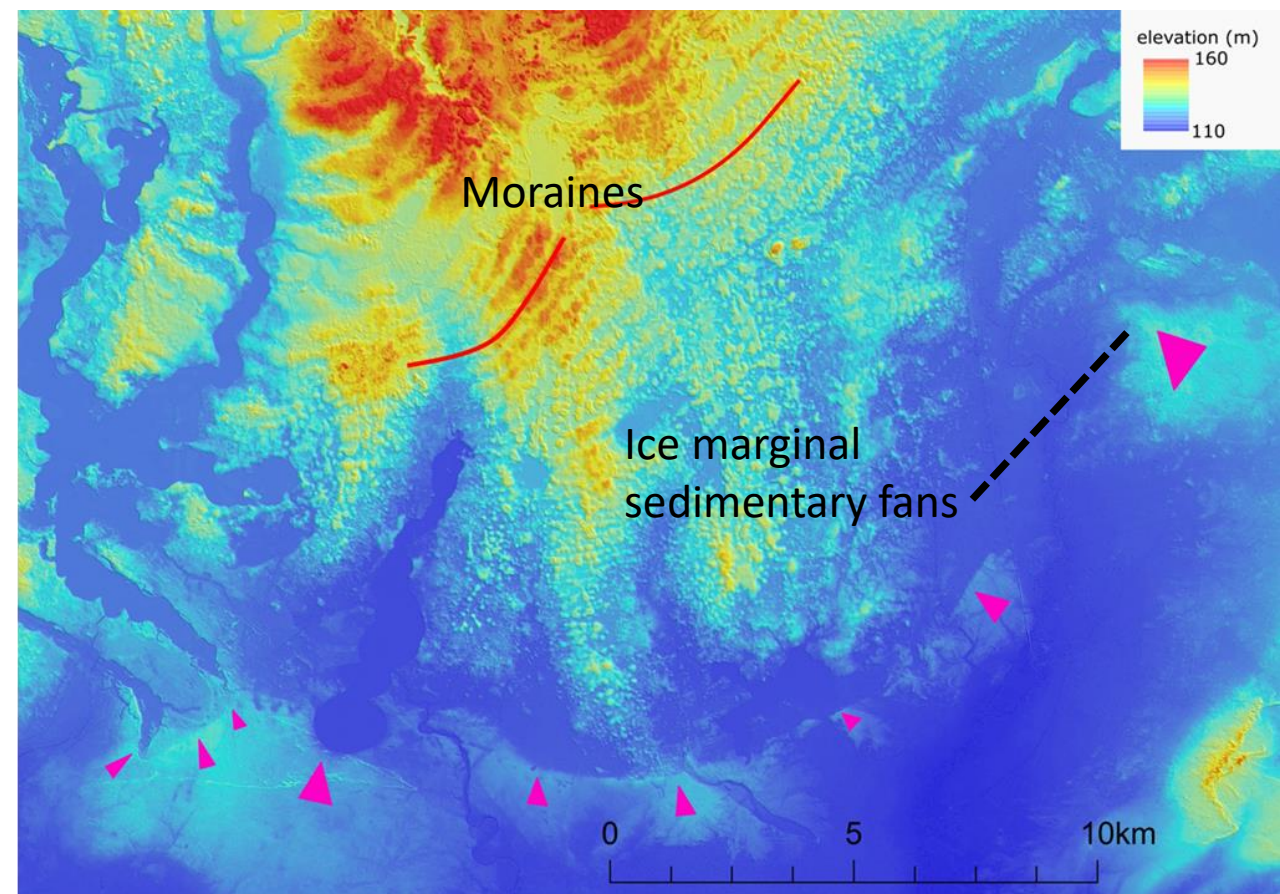
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- Aim: provide an ice sheet reconstruction for the modelling community
- First holistic landform-based ice dynamic map
- Study area has seen different levels of investigation
- Acts as a framework that might help integrate dynamics across this vast region
- Details of our reconstruction will need adjustment



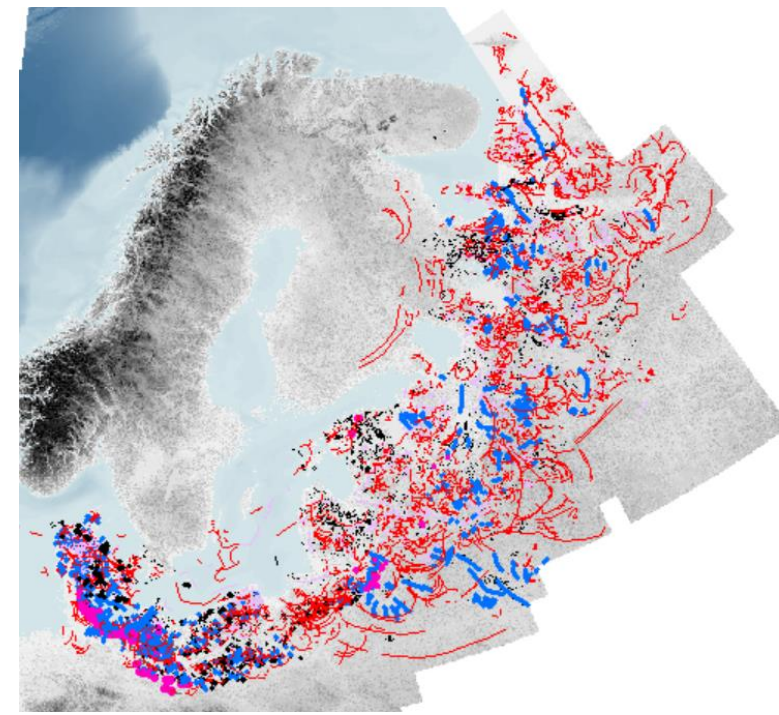
Mapping using symbology

- Mapping purpose is to capture ice dynamics over the vast region
- Mapping using symbology:
 - effective at different scales and DEM resolutions
 - rapid method



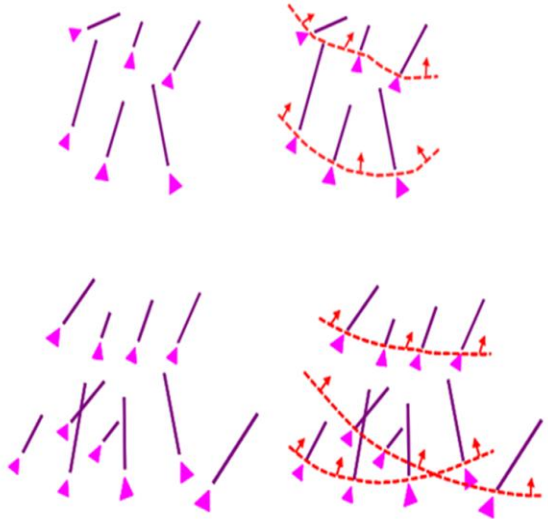
From landforms to reconstruction

- Complex landform record
- Work in sub regions and then connect them
- Use the patterns that links well between sub regions
- Iterative model building approach
- Protocols to deal with cross cutting and overprinting



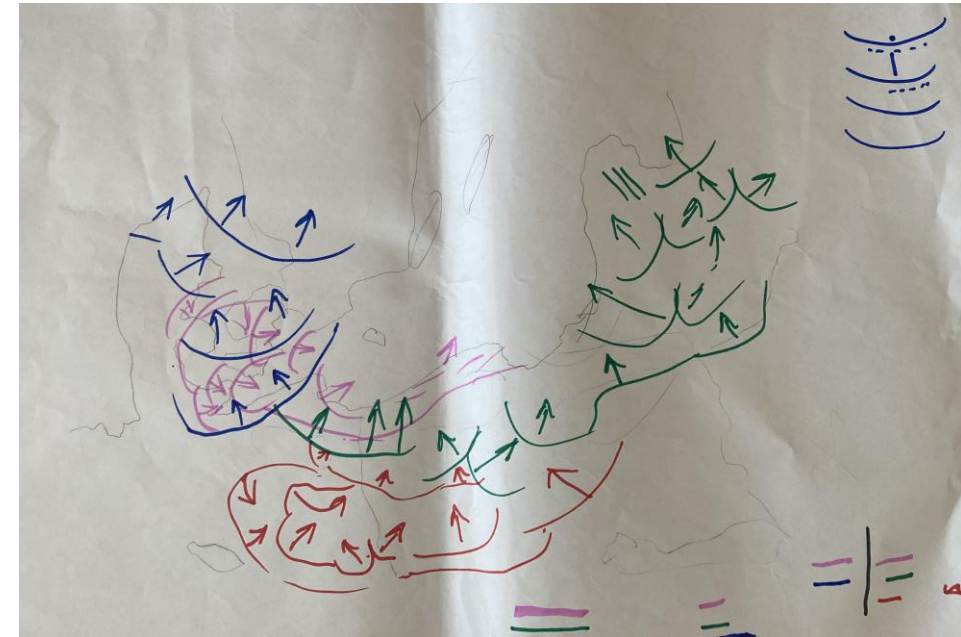
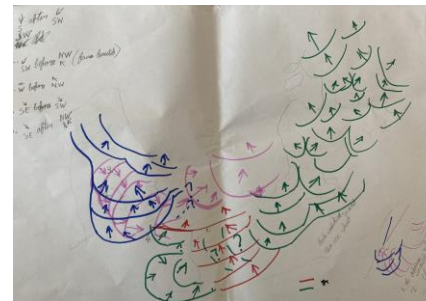
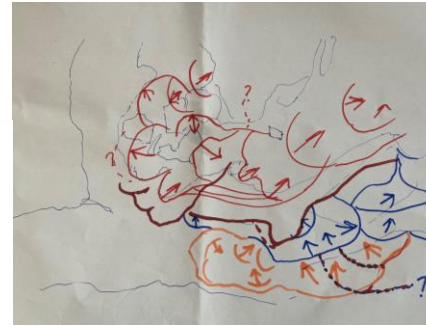
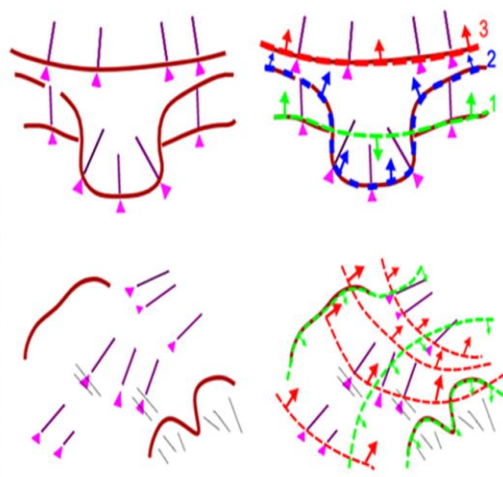
landforms

Interpretation



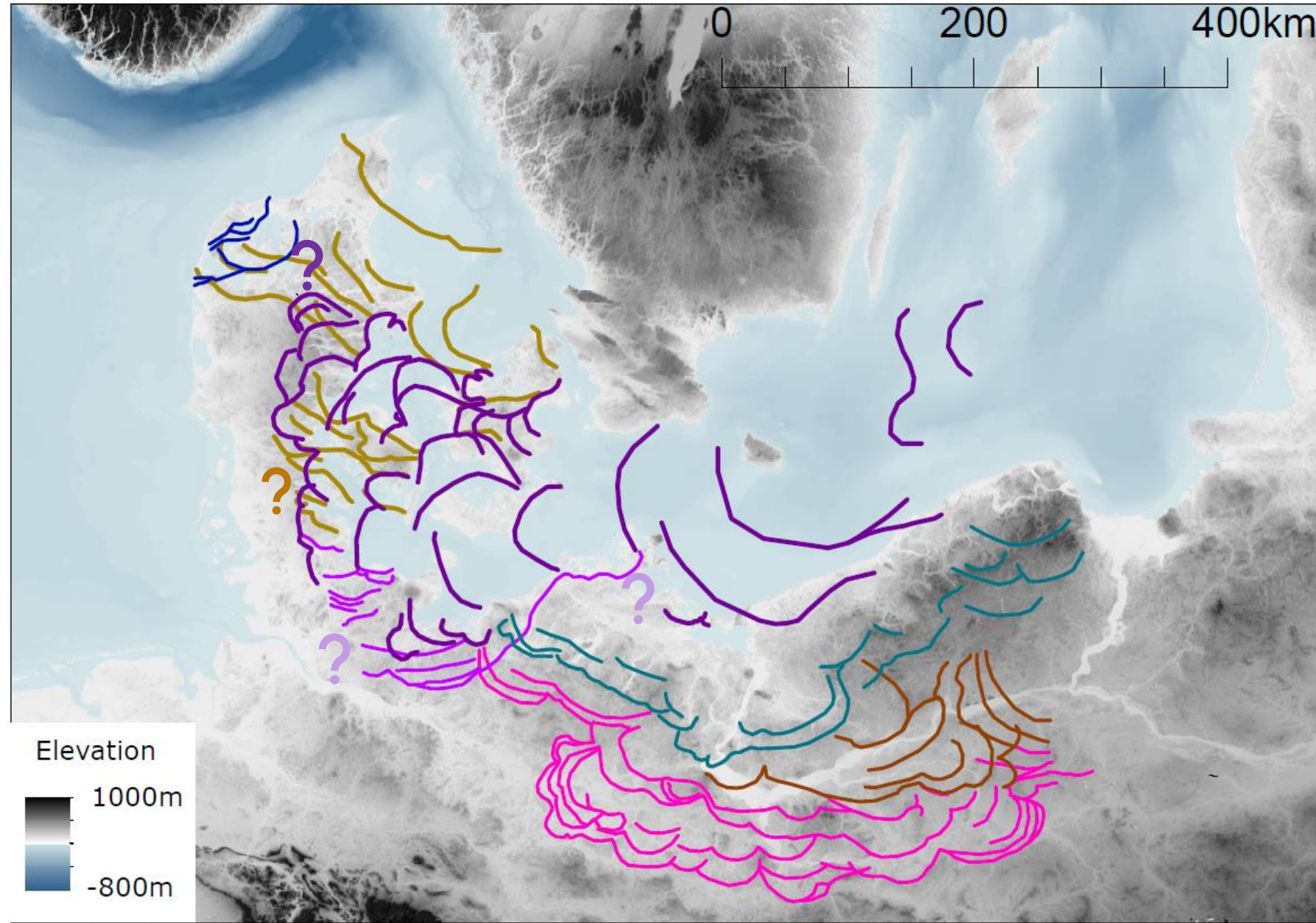
landforms

Interpretation



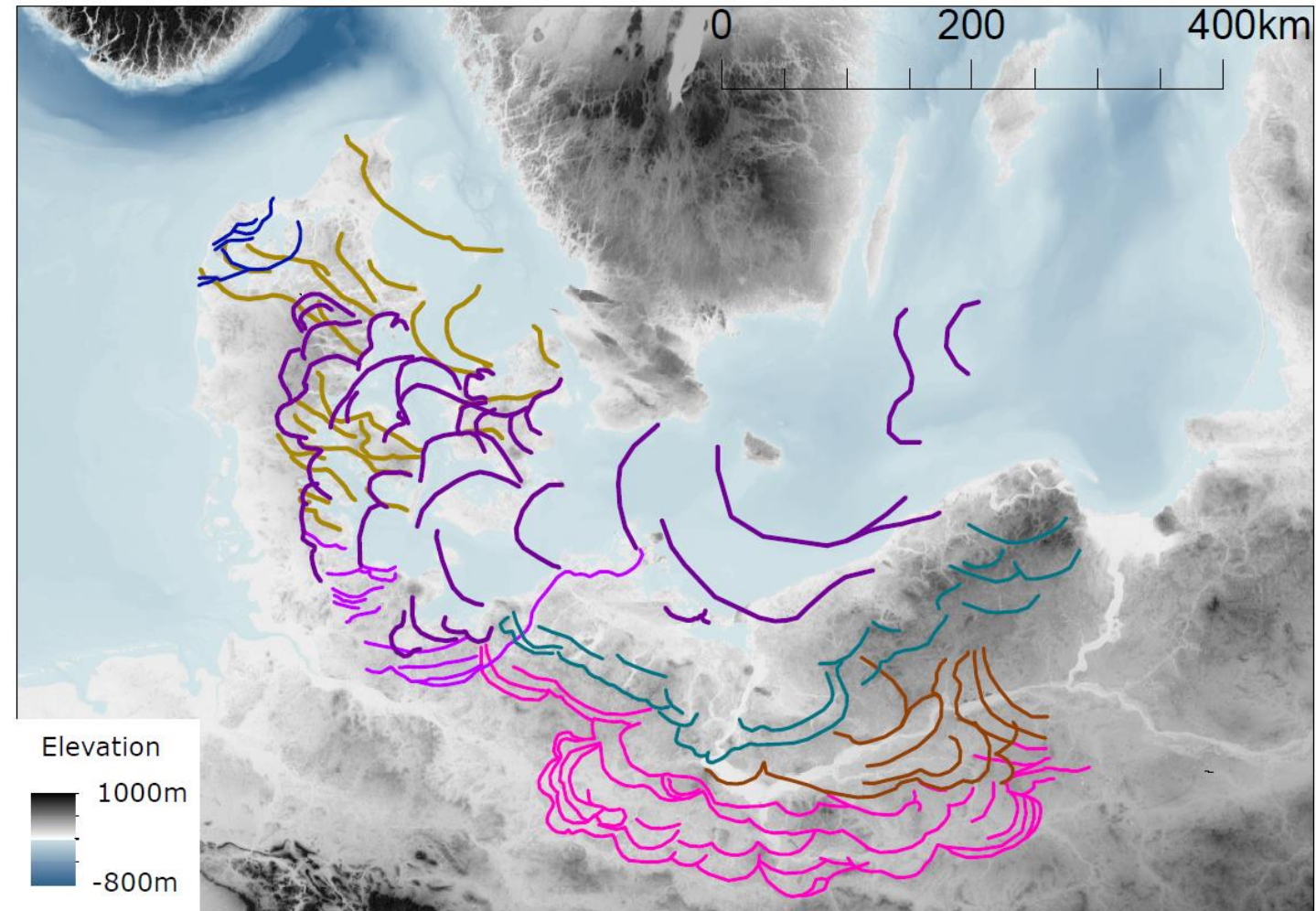
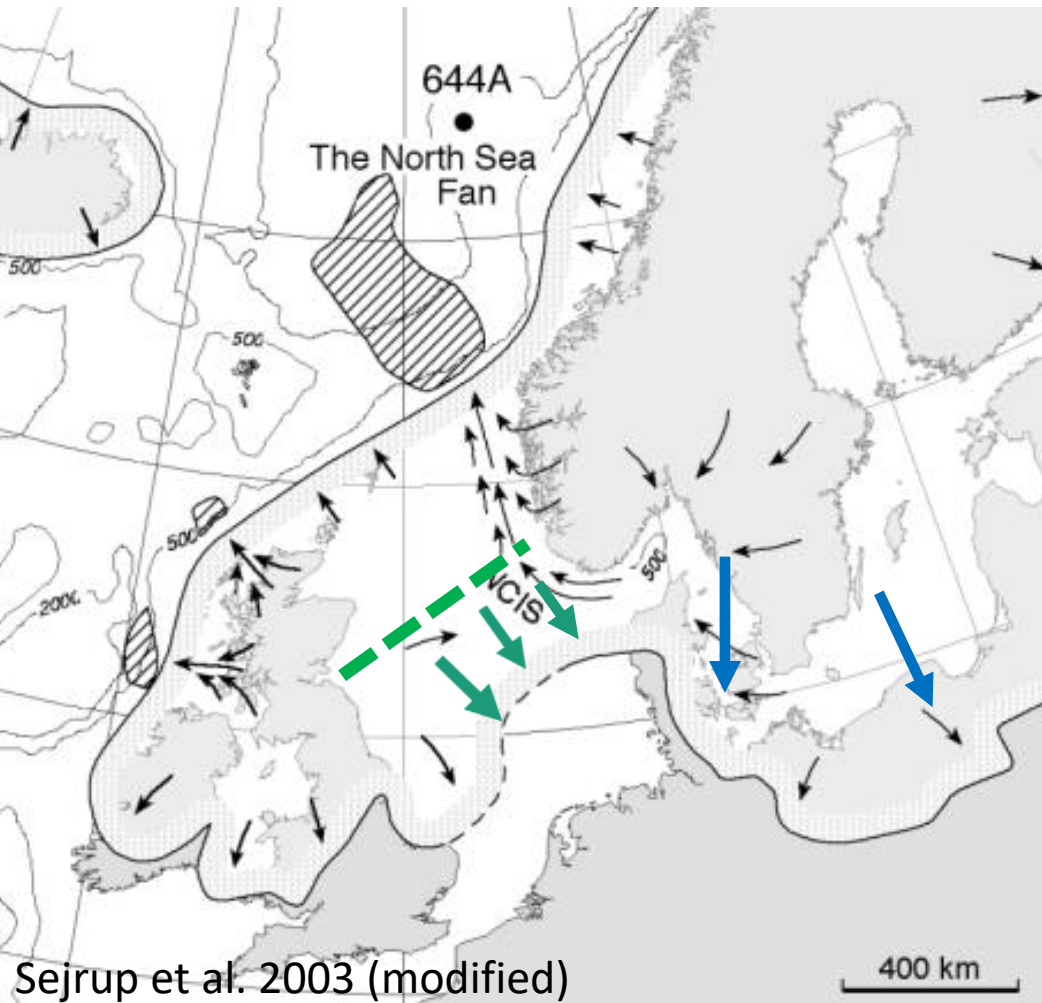
Initial ice dynamic patterns are emerging

- Initial patterns emerging in the South
- Major shifts in flow direction recorded in landform record
- What might explain this major shift in ice dynamics and orientation?



Could British-Irish and Scandinavian Ice Sheet confluence explain this large Change?

- **Confluence** = Gate closed, **ice flows South**
- No confluence = **Gate open, ice evacuated into North Sea**
- Possible ice dynamic explanation for the landform pattern observed
- Large region of the study area is currently being reconstructed



Determining the glaciological context of overprinting landforms

landforms

Interpretation

landforms

Interpretation

