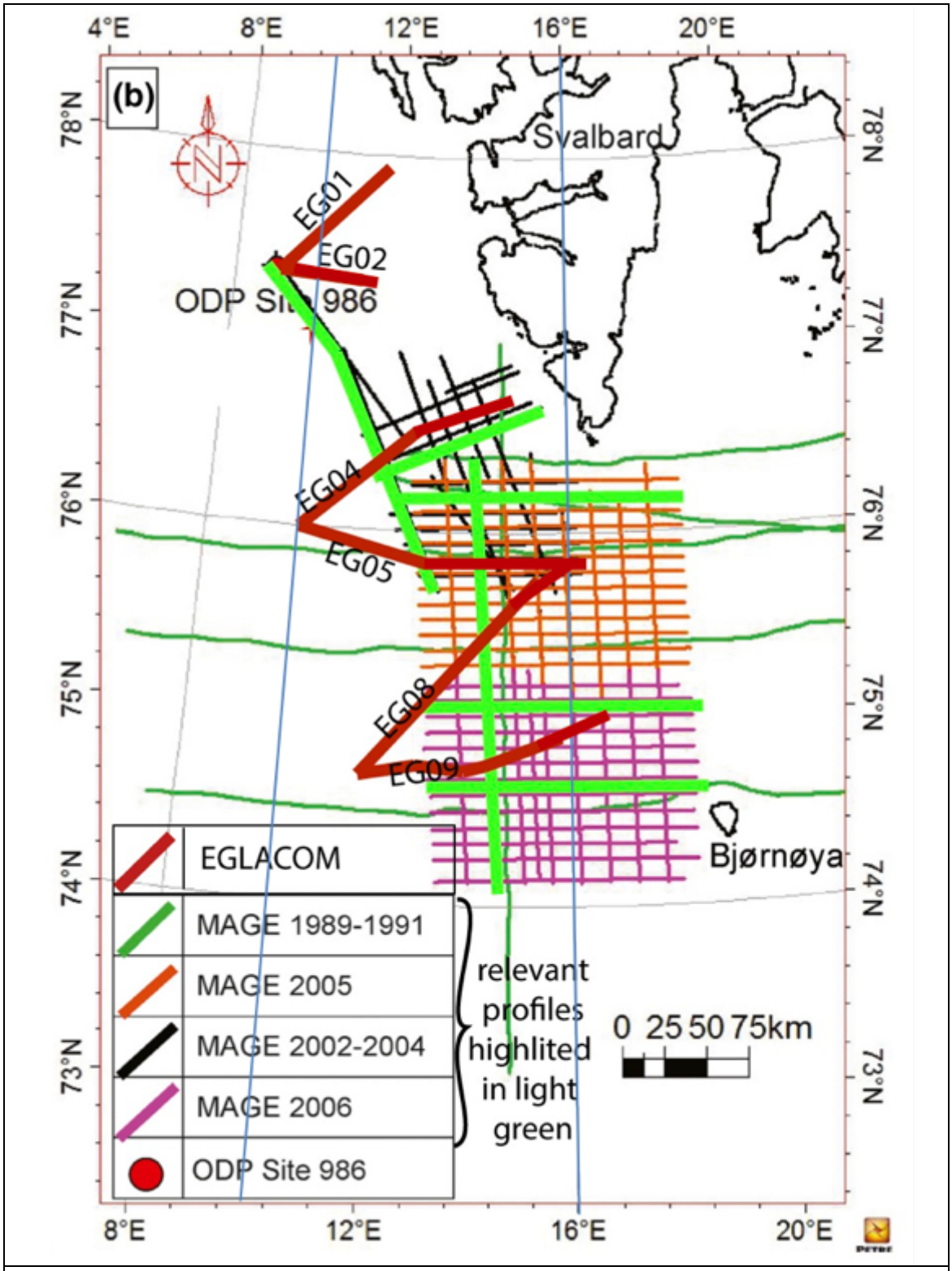

Figure 1: Dataset of 2008 Eglacom Cruise with R/V Explora ~1070 km of multichannel seismic reflection data reprocessed and interpreted for this study. ODP Leg 986 used for calibration. MAGE data from Safronova et al. (2017) used for proximal correlation.

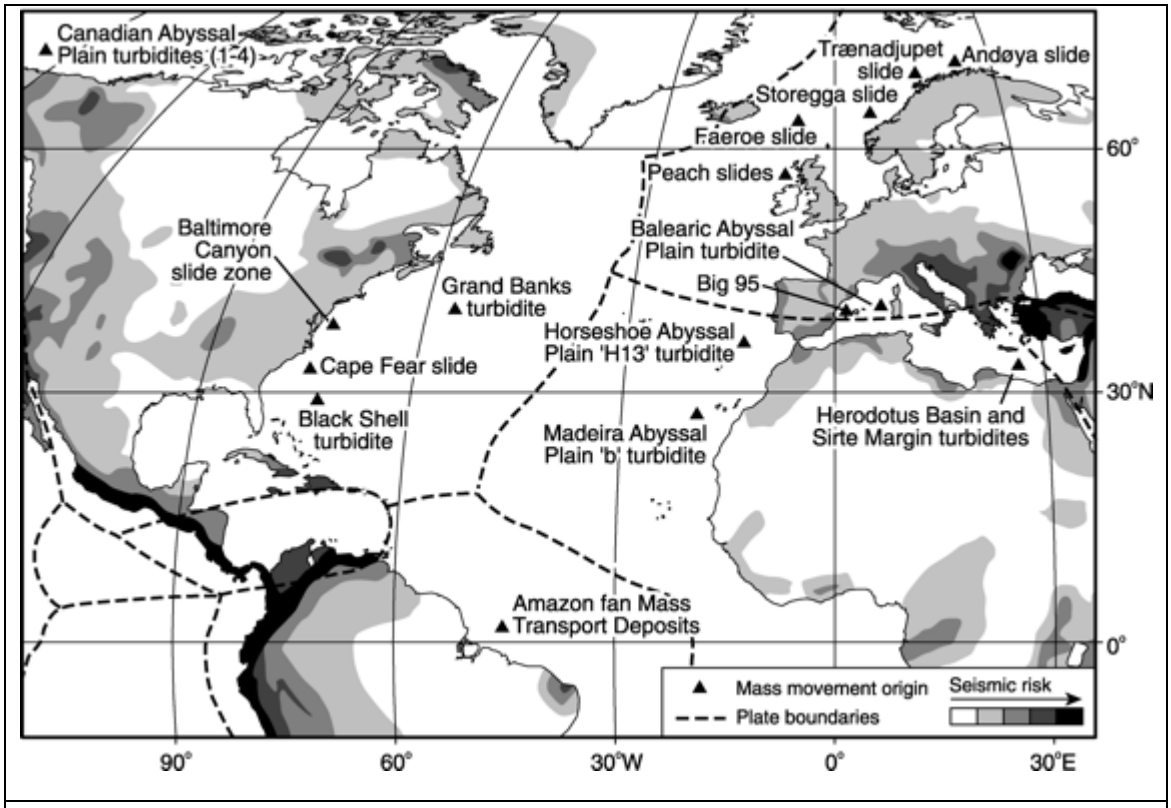

Figure 2: Location of mass-transport events, compared with modern-day seismic risk and plate boundaries (Giardini, 1999) (Figure from Maslin et al. 2004)

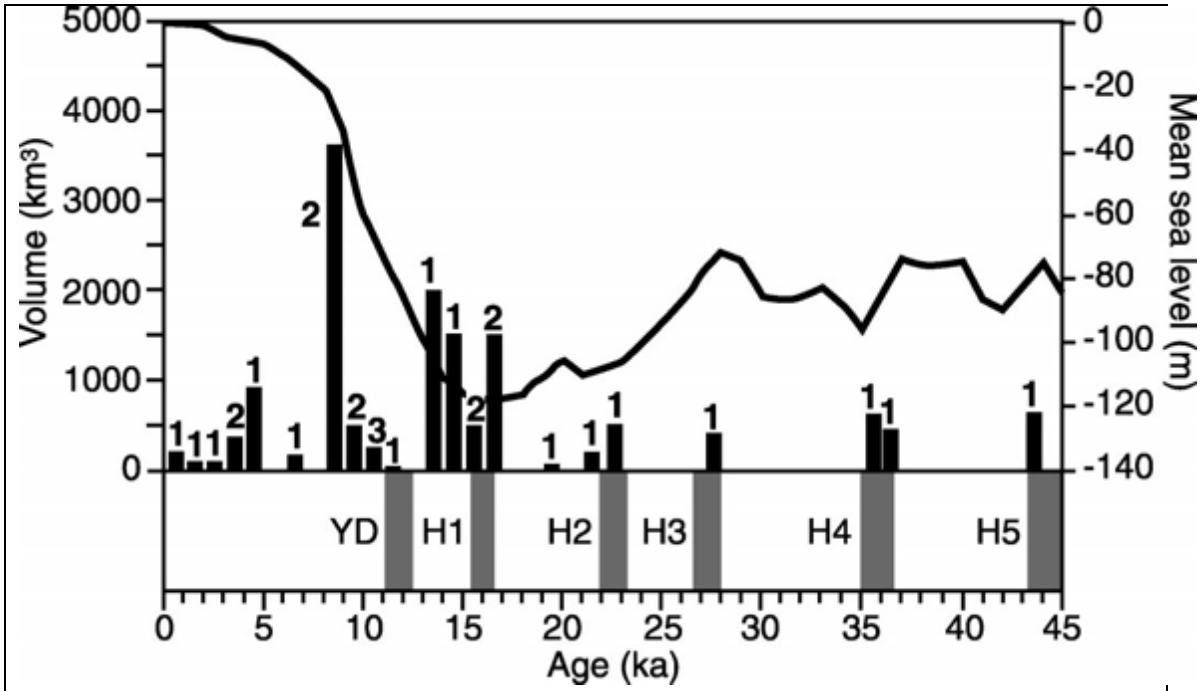

Figure 3: Total volume of mass transport or slide deposits (black bars) and number of failures (small numbers next to bars) compared with mean relative sea level (curve) for past 45 k.y. (McGuire et al., 1997). Heinrich events (H1–H5) and Younger Dryas (YD) are shown for comparison. (Figure from Maslin et al 2004).

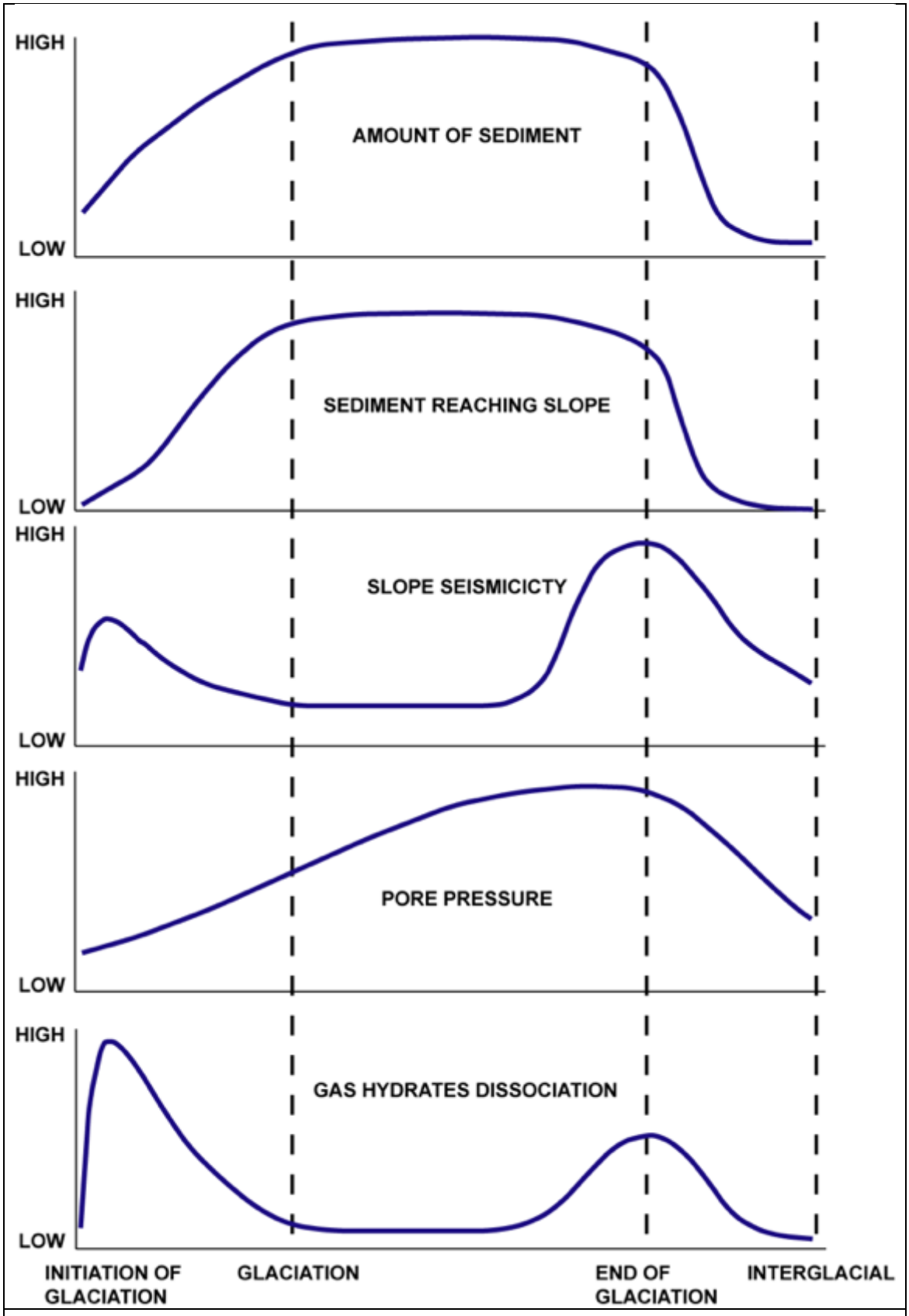

Figure 4: Approximate impact of time on several factors that influence the stability of submarine slopes. (Figure from Lee, 2009) Rapidly changing factors during stages of the glacial cycle.

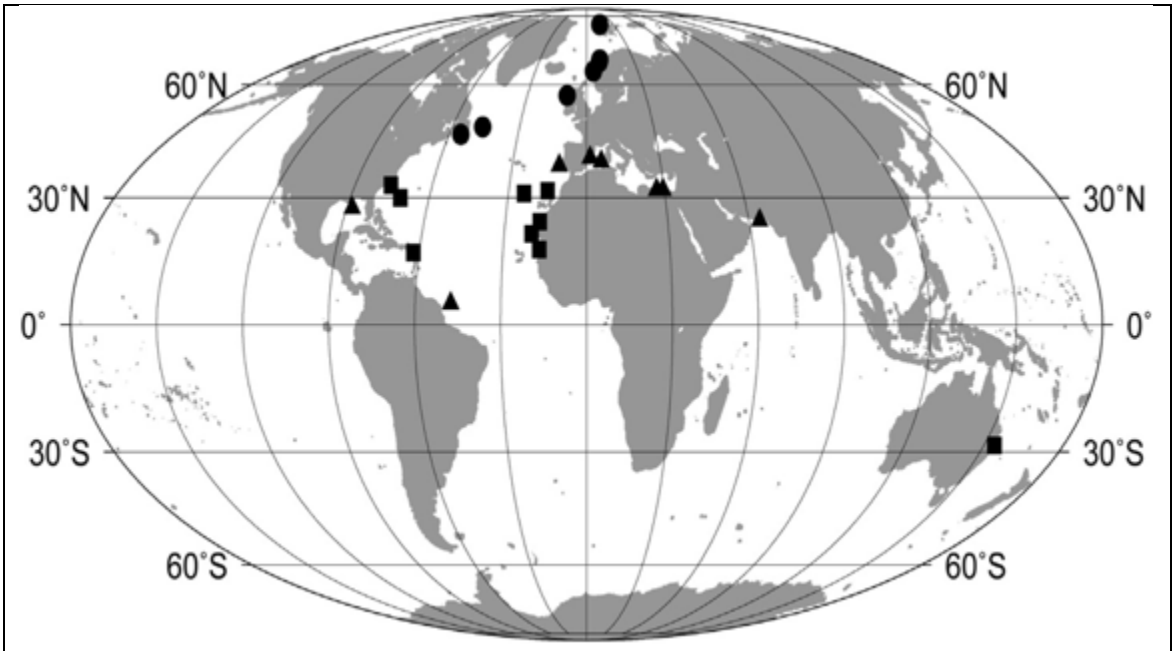

Figure 5: Locations of all submarine landslides in the landslide age data base. Different marker shapes represent different depositional regimes (dots: glaciated regions, triangles: river fan systems, rectangles: sediment-starved margins). (Figure from Urlaub et al., 2013) All Landslides with volume >1 km3 and < 175ka (Restricted to shallow landslides due to core lengths). North Atlantic: Timing of occurrence of large submarine landslides: Rigorous statistical analysis finds NO correspondence with sea level change.

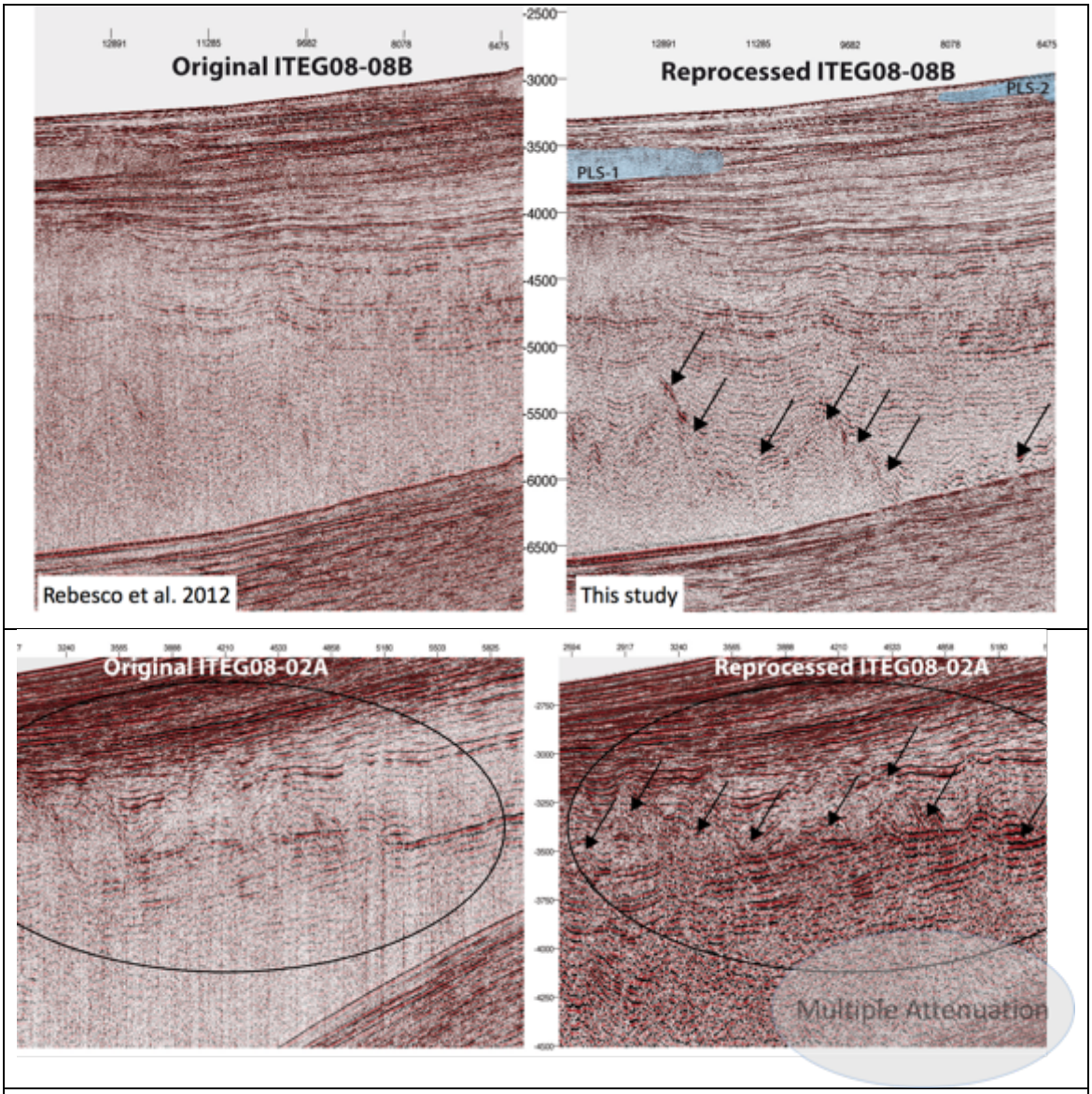

Figure 6: Seismic images before and after data reprocessing. Higher resolution images on the right. Arrows pointing to basement (upper right image) and mass movement structure (low er right figure). Data were reprocessed at Barcelona Center for Subsurface Imaging (Barcelona CSI).

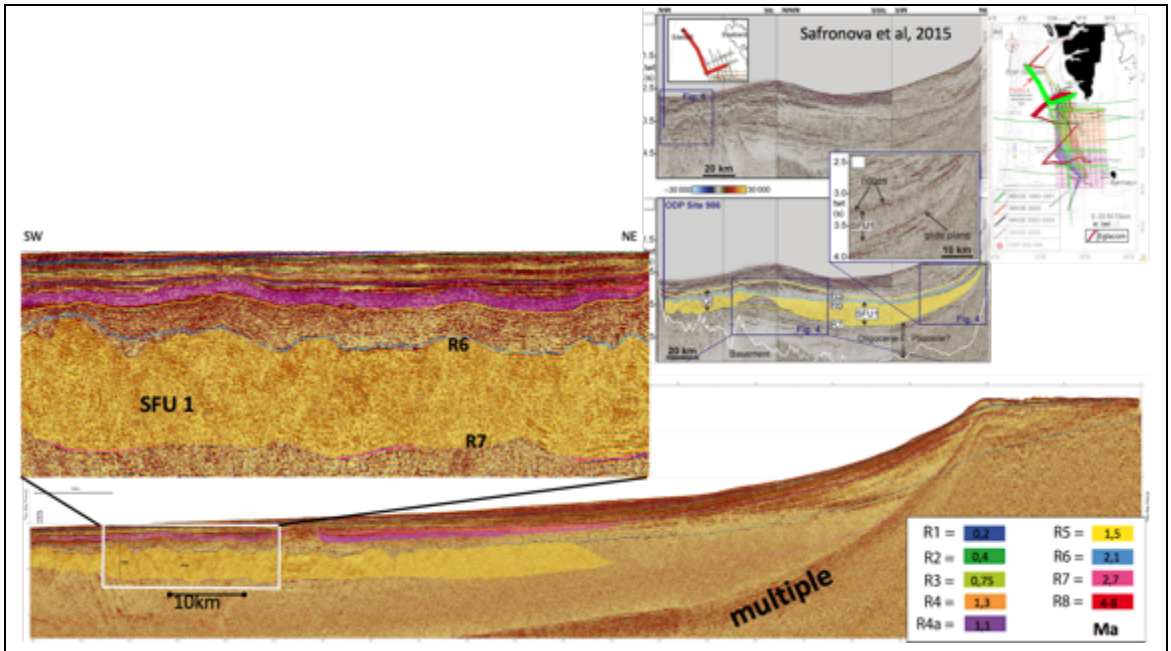

Figure 7: Left and bottom: Seismic data image of EG04 with interpretation. (location see inset upper right, 4 marked in bold red). At least 3 single events in profile Eg04 filled as transpartent yellow, pink and orange. MTD named SFU 1 reaches 1km thickness (outlined as transparent yellow) with some internal layer packagees and diapirism. Up right seismic data from Safronova et al., 2017 (location see inset upper right with profile marked in bold light green). Data from Safronova et al., (2017) show proximal continuation of largest MTD called SFU1 towards the slope and lateral thickness variation on the upper slope. Lower right inset: importand seismic reflectors for sequence stratigraphy with given ages.

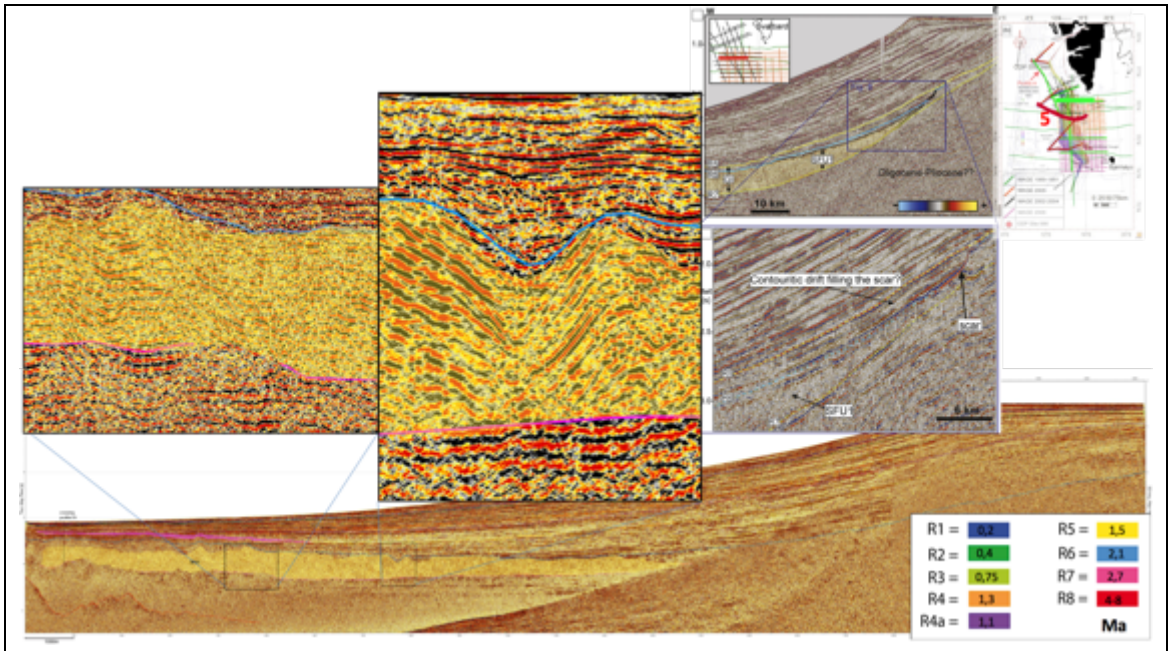

Figure 8: Left and bottom: seismic data image of EG05 with interpretation. (location see inset upper right, profile 5 marked in bold red). SFU1 Slide, filled as transparent yellow has a clear erosive base (represented by R7 in pink) internal thrust faults and layering, indicating cohesive slumping. Up right: seismic data from Safronova et al., 2017 (location see inset upper right profile marked in bold Green) showngi proximal continuation of MTD called SFU1 on the upper slope. Lower right inset: importand seismic reflectors for sequence stratigraphy with given ages lower left inset.

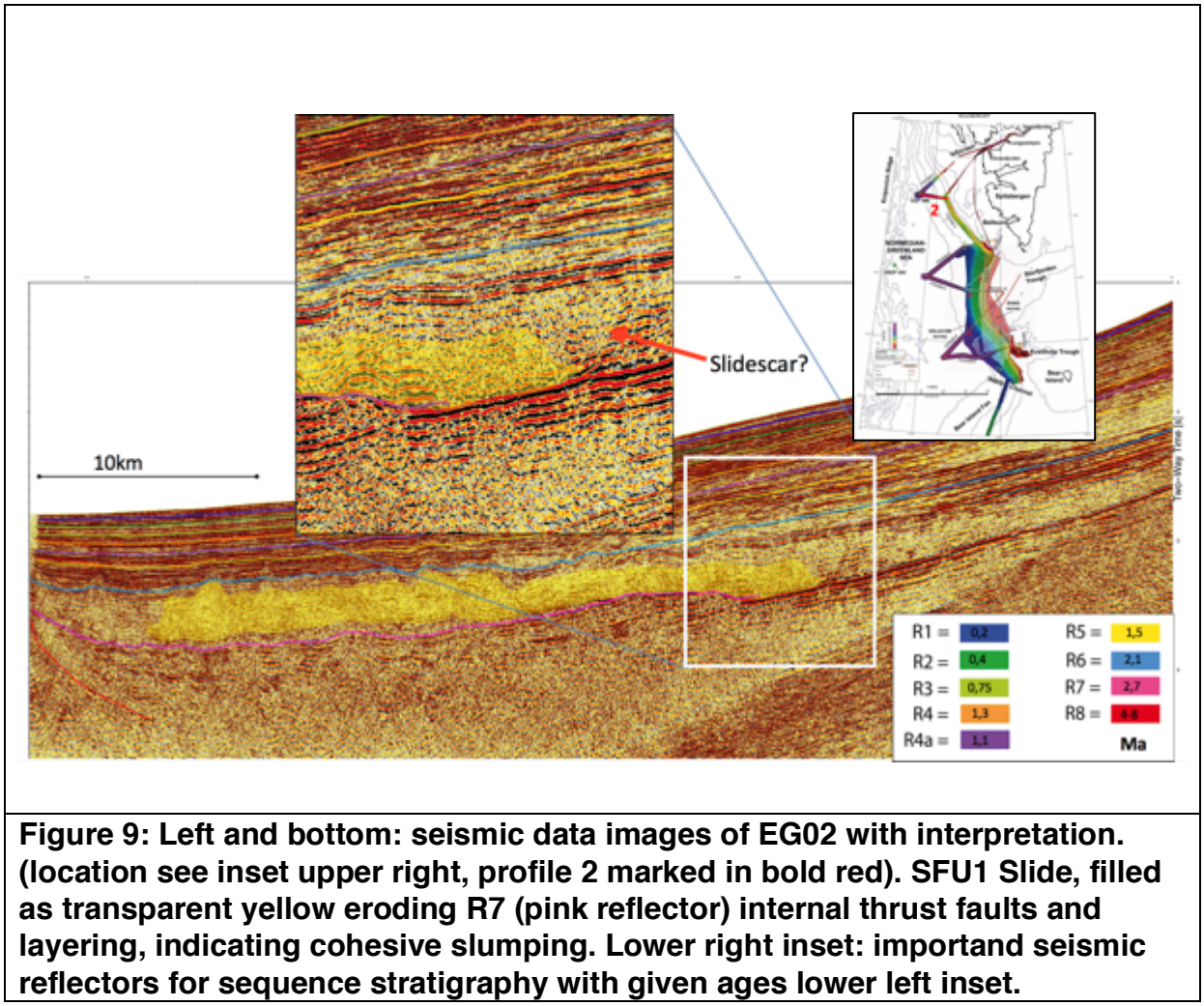

Figure 9: Left and bottom: seismic data images of EG02 with interpretation. (location see inset upper right, profile 2 marked in bold red). SFU1 Slide, filled as transparent yellow eroding R7 (pink reflector) internal thrust faults and layering, indicating cohesive slumping. Lower right inset: importand seismic reflectors for sequence stratigraphy with given ages lower left inset.

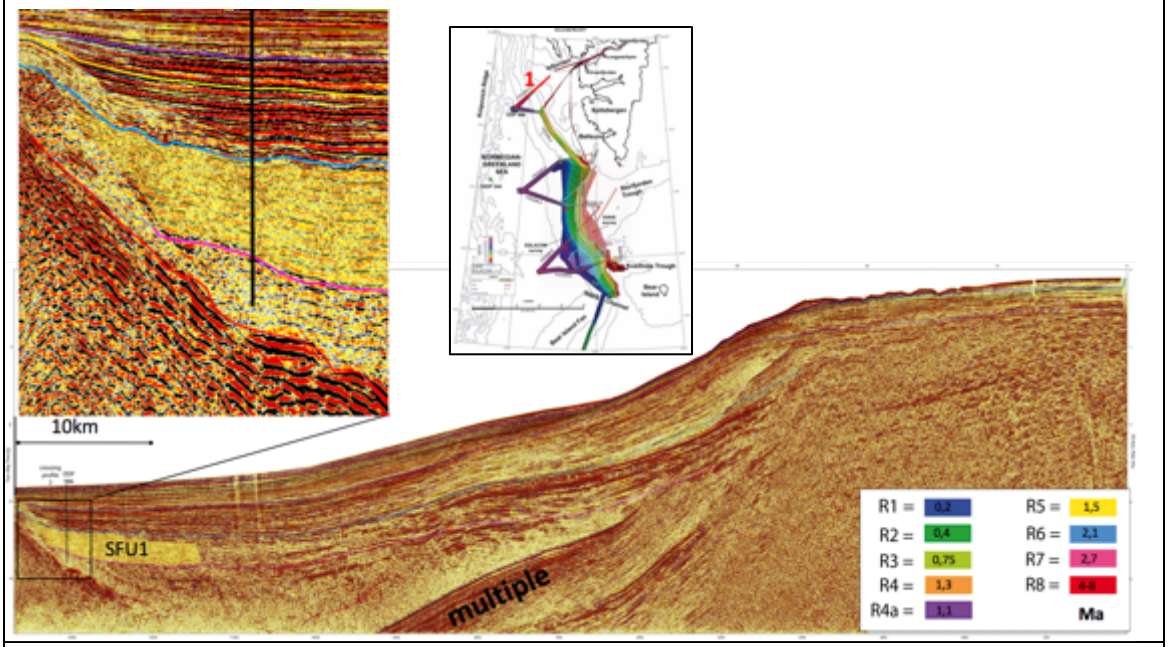

Figure 10: Left and bottom: seismic data images of EG01 with ODP location for calibration and interpretation. Upper right shows location of profile 1 marked in bold red. SFU1 Slide, filled as transparent yellow. Lower right inset: importand seismic reflectors for sequence stratigraphy with given ages lower left inset.

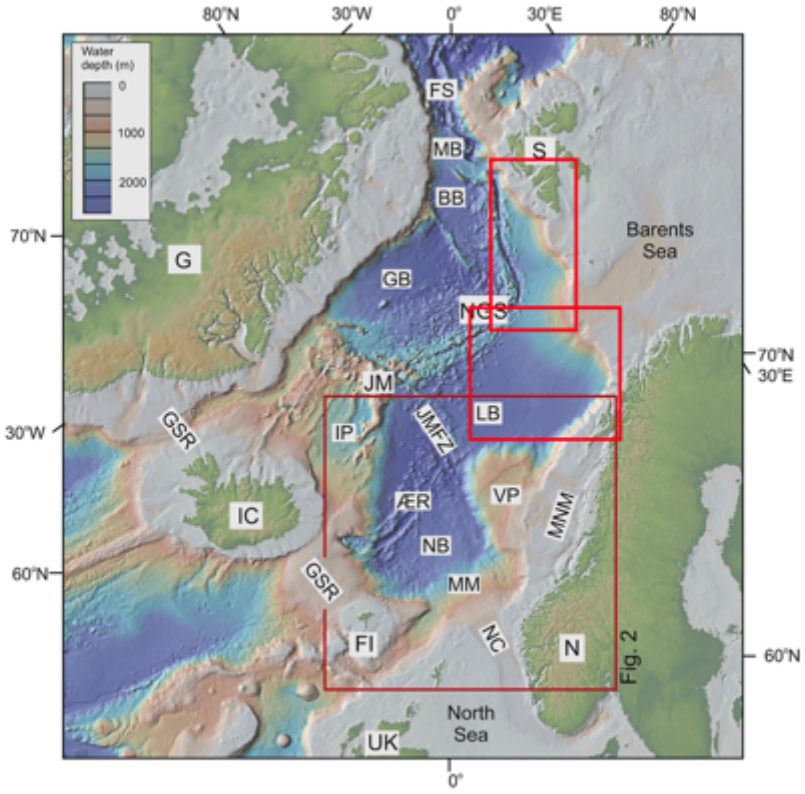

Figure 1. Norwegian-Greenland Sea (NGS) and neighbouring continents. Five deep-water basins evolved in this sea, the Boreas (BB), Lofoten (LB), Norway (NB), Molloy (MB) and Greenland (GB) basins, are all at water depths of >2000 m. Red box indicates location of map in Fig. 2. JMFZ: Jan Mayen Fracture Zone; JM: Jan Mayen; ÆR: Ægir Ridge; GSR: Greenland–Scotland Ridge; IP: Iceland Plateau; VP: Vøring Plateau; UK: United Kingdom; MM: Møre Marginal High; FI: Faroe Islands; G: Greenland; IC: Iceland; S: Svalbard; NC: Norwegian Channel; FS: Fram Strait; MNM: Mid-Norwegin margin; N: Norway.

Figure 11: Geological record of Giant Slides in glacial margins. Upper red square: location of slides this study. Middle and lower red squares location of other giant slides (bigger than Storregga) published by Hjelstuen et al. (2007 and 2015). (Figure modified after Hjelstuen et al. (2015))