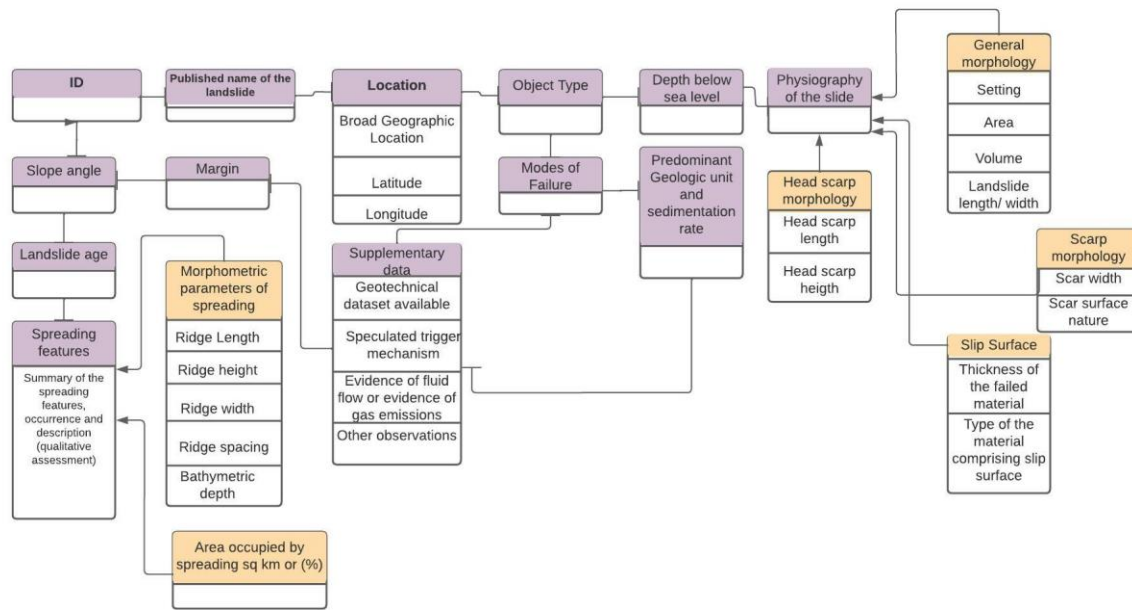


## 1. Subaqueous Spreading Database



The subaqueous spreading database ('SubSpread') was built on the basis of the guidelines provided by Clare et al. (2018) for the morphometric description of subaqueous landslides. We incorporated case studies from literature, considering all the available papers about subaqueous landslides (126 research articles) and the review studies in the volume of books 'Submarine mass movements and their consequences' from 2003 up to 2020, for building a database as complete as possible. We followed the morphological definition of spreading as detailed by Varnes (1978) and its successive updates (Cruden and Varnes, 1996; Hungr et al., 2014), along with the topographic description in Micallef et al. (2007). Where no detailed description or clear classification of the landslides (or areas thereof) as spreads was provided in the manuscript. We studied the bathymetric maps or the seismic profiles provided to find unequivocal evidence of geomorphic features of spreading (e.g. ridges and troughs, often also mentioned in aerial view as 'stairs', or 'step-stair morphology'). The geographic, physiographic and geological parameters included in the database give information about the entire landslide (or landslide complex) where spreading is observed, even if the extent of the spreading does not cover the entire landslide body. The physiographic parameters are reported from the cited literature.

### REFERENCES

- CLARE, M.A., VARDY, M.E., CARTIGNY, M.J., TALLING, P.J., HIMSWORTH, M.D., DIX, J.K., HARRIS, J.M., WHITEHOUSE, R.J., BELAL, M., 2017. DIRECT MONITORING OF ACTIVE GEOHAZARDS: EMERGING GEOPHYSICAL TOOLS FOR DEEP-WATER ASSESSMENTS. NEAR SURF. GEOPHYS. 15 (4), 427–444.
- VARNES, D.J., 1978. SLOPE MOVEMENT TYPES AND PROCESSES. IN: SHUSTER, R.L., KRIZEK, R.J.(EDS.), LANDSLIDES ANALYSIS AND CONTROL, VOLUME SPECIAL REPORT 176. NATIONAL RESEARCH COUNCIL, WASHINGTON, PP. 11–33.

-CRUDEN, D.M., VARNES, D.J., 1996. LANDSLIDE TYPES AND PROCESSES. IN: TURNER, A.K., SCHUSTER, R.L. (Eds.), LANDSLIDES INVESTIGATION AND MITIGATION, VOLUME 247. TRANSPORTATION RESEARCH BOARD, US, NATIONAL RESEARCH COUNCIL, WASHINGTON, DC, PP. 36–75.

-HUNGR, O., LEROUÉIL, S., PICARELLI, S., 2014. THE VARNES CLASSIFICATION OF LANDSLIDE TYPES, AN UPDATE. LANDSLIDES 11, 167–194.

-MICALLEF, A., MASSON, D.G., BERNDT, C., DORRIK, A., STOW, V., 2007. MORPHOLOGY AND MECHANICS OF SUBMARINE SPREADING: A CASE STUDY FROM THE STOREGGA SLIDE. J. GEOPHYS. RES. 112, F03023.