Session 1.1 – 11:00 – 11:15

Landslides in Weathered Flysch: From Activation to Deposition (WCoE 2017–2020)

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History & About the presentation.

- University of Ljubljana, Faculty of Civil and Geodetic Engineering is an ICL Full member and WCoE since 2008 - the last time approved at WLF4 in Ljubljana 2017 – and selected again for the period 2020–2023.
- This presentation is a resume of the last WCoE activities 2017–2020.
- The activities will be divided into international and national ones.
- International activities are ICL related activities, International research cooperation & Bilateral research cooperation.
- National activities are National research projects and National research programme.

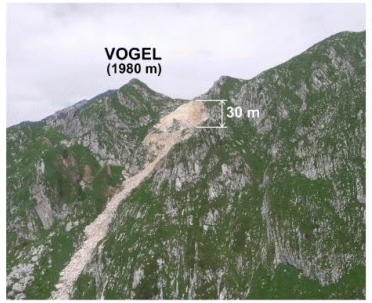
International activities – ICL-related.

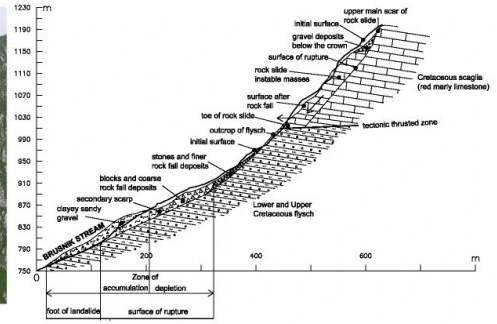
- ICL Regional „Adriatic-Balkan Network“: 3rd (Ljubljana 2017) & 4th ReSyLAB (Sarajevo 2019).
- ICL „Landslide Monitoring and Warning Thematic Network“.
- ICL Vice-President (2017–2020) & IPL Evaluation Committee (2012–21).
- Editorial work for the journal *Landslides*.
- Contributions to the *ICL Landslide Interactive Teaching Tools*.
- Hosting WLF4 in Ljubljana (2017) and supporting WLF5 in Kyoto (2021).
- IPL-225 Recognition of potentially hazardous torrential fans using geomorphometric methods and simulating fan formation (2017–2020).
- IPL-226 Studying landslide movements from source areas to the zone of deposition using a deterministic approach (2017–2020).
- WCoE 2017–2020.

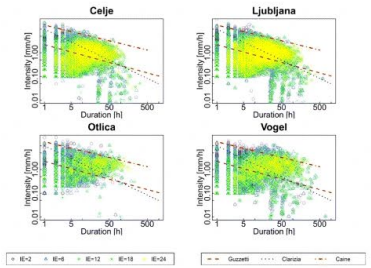
International activities – non ICL-related.

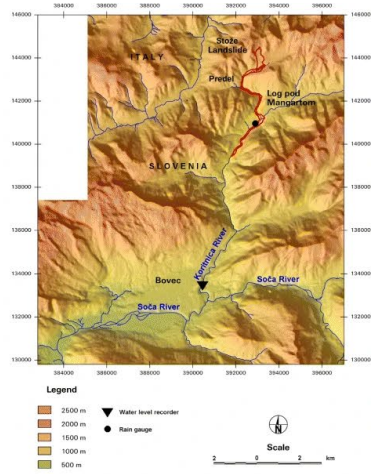
- UNESCO Chair on Water-related Disaster Risk Reduction (2016–) www.unesco-floods.eu.
- Supporting Slovenian National Committee on the IHP UNESCO (2019–).
- Bilateral project with Chongqing University of Technology, China (2018–2020) on „Evaluation of intelligent learning techniques for prediction of hydrological data: useful case studies in China and Slovenia".
- Bilateral project with University of Hannover, Germany (2018–2019) on „Stochastic rainfall models for rainfall erosivity evaluation".
- COST project DAMOCLES: Understanding and modeling compound climate and weather events (2018–2022).
- Supporting then VISUS methodology for multi-hazard school safety assessment – it is supported by UNESCO.
- Organization of the World Construction Forum Ljubljana 2019.
- Supporting the INTERPRAEVENT Research Society (IP2018 in the Pacific Rim at Toyama, Japan & 14th Congress in Bergen, Norway in 2021).

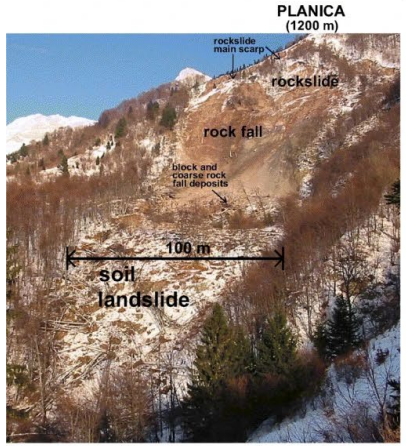
National activities - past.

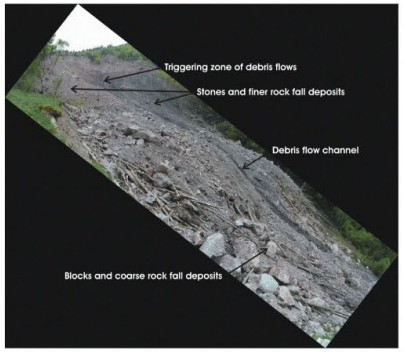


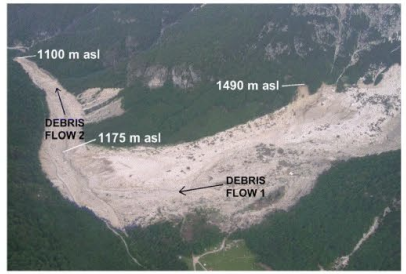


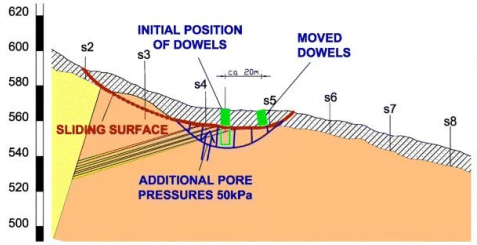


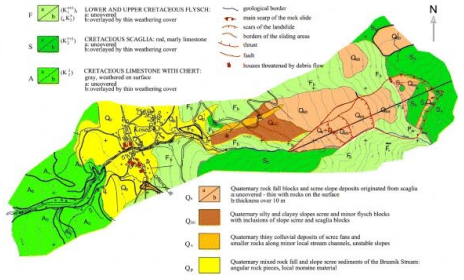






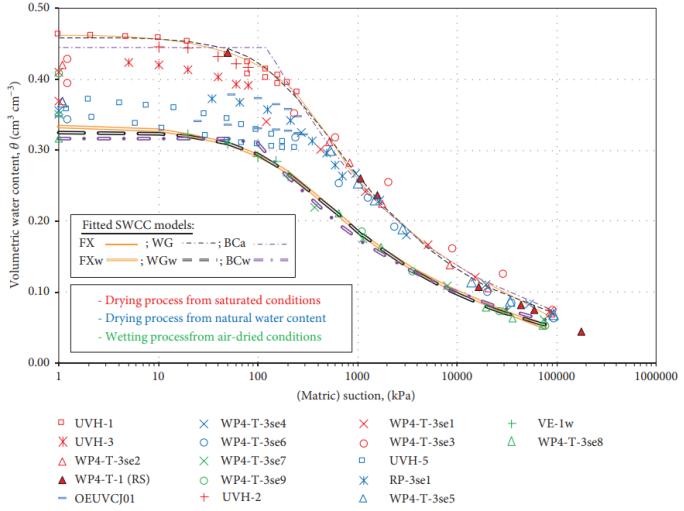


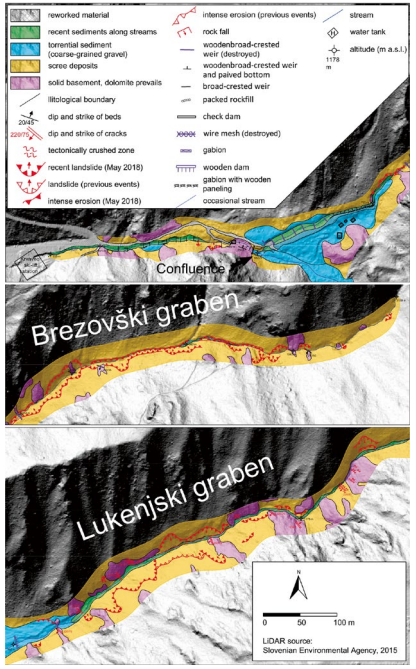


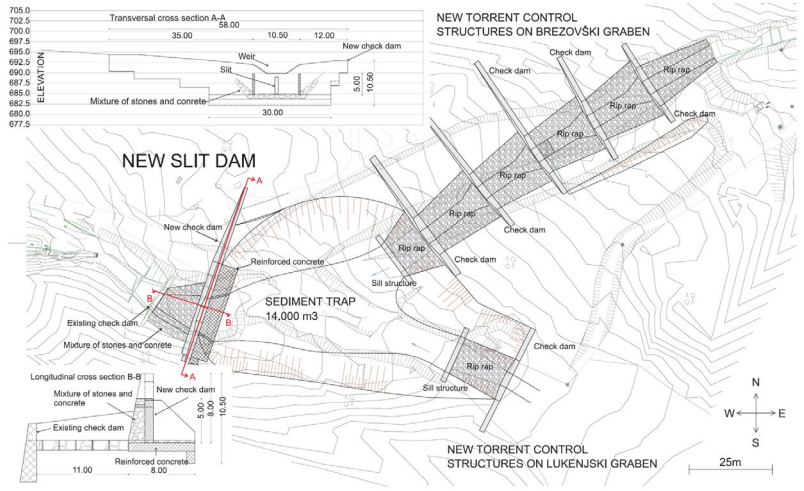


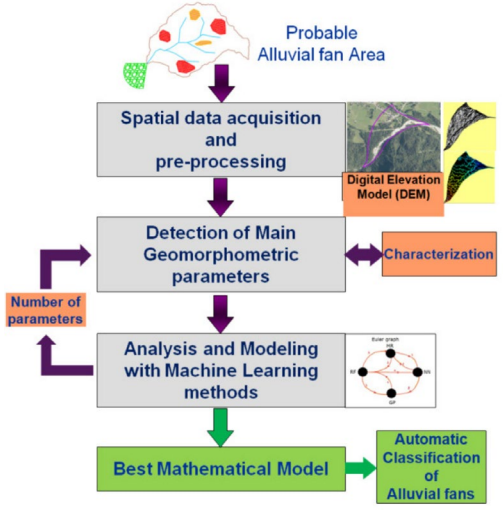
- Field investigations on (large) landslides in Slovenia.
- Using different monitoring techniques and mathematical simulation models.

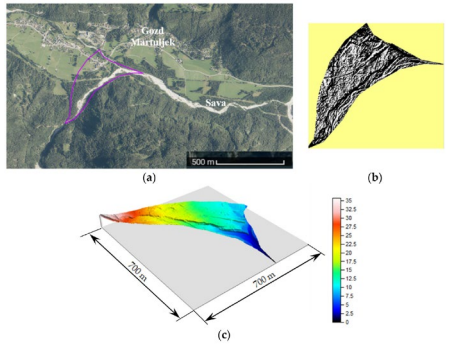
National activities – since WLF4.











- Recognition and classification of torrential fans.
- Case study at Koroška Bela (T4-41 & T5-30) & Krvavec (T4-21).
- Using RAMMS model for debris flows & floods.
- Rheological properties of soils from flysch-like rocks.

Babič et al. (2021) in *Remote sensing*, 13, 1711.
Bezak et al. (2021) in *Landslides*, 17, 2372-2382 & Bezak et al. (2021) in *Landslides*, in print.
Mikoš & Bezak (2021) in *Frontiers in Earth Science*, 8, 605061.
Peranić et al. (2018) in *Geofluids*, ID6297819.

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WCoE 2020-2023: KLC 2020 and beyond.

- Action 2: Advance hazard and vulnerability mapping, including vulnerability and risk assessment with increased precision, as well as reliability as part of multi-hazard risk identification and management.
- Action 5: Promote open communication with local governments and society through integrated research, capacity building, knowledge transfer, awareness-raising, training, and educational activities, to enable societies and local communities to develop effective policies and strategies for reducing landslide disaster risk, to strengthen their capacities for preventing hazards from developing into major disasters, and to enhance the effectiveness and efficiency of relief programs.
- Action 6: Investigate the effect of climate change on rainfall-induced landslides and promote the development of effective rainfall forecasting models to provide earlier warning and evacuation especially in developing countries.
- Action 9: Foster new initiatives to study research frontiers in understanding and reducing landslide disaster risk by promoting joint efforts by researchers, policymakers, and funding agencies.
- Action 10: Facilitate and encourage monitoring, reporting on, and assessing progress made, through the organization of progress report meetings at the regional and national level, to take place in respective countries, in order to show delivery and performance on progress made towards achieving the Kyoto 2020 Commitment priority actions no. 1–9.

More info

Mikoš M, Petkovšek A (2019) Faculty of civil and geodetic engineering, University of Ljubljana. *Landslides* 16(9):1815–1819. https://doi.org/10.1007/s10346-019-01231-6

Mikoš M et al. (2021) Landslides in Weathered Flysch: From Activation to Deposition (WCoE 2017-2020). In: Sassa K et al.: Understanding and Reducing Landslide Risk, Vol. 1, 235-240. https://doi.org/10.1007/978-3-030-60196-6_15

Thank You for Your Attention.