## PARAmount

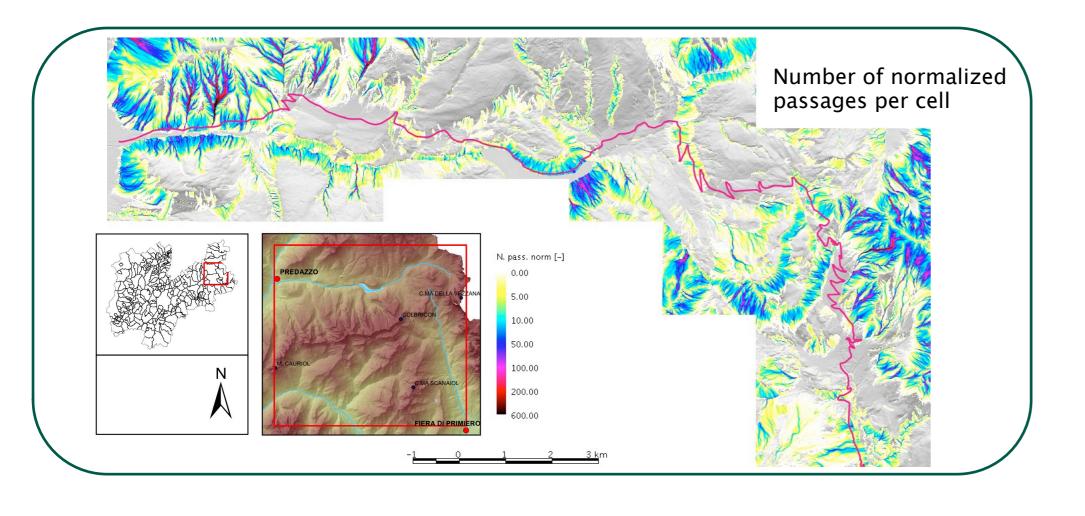
imProved Accessibility: Reliability and security of Alpine transport infrastructure related to mountainous hazards in a changing climate

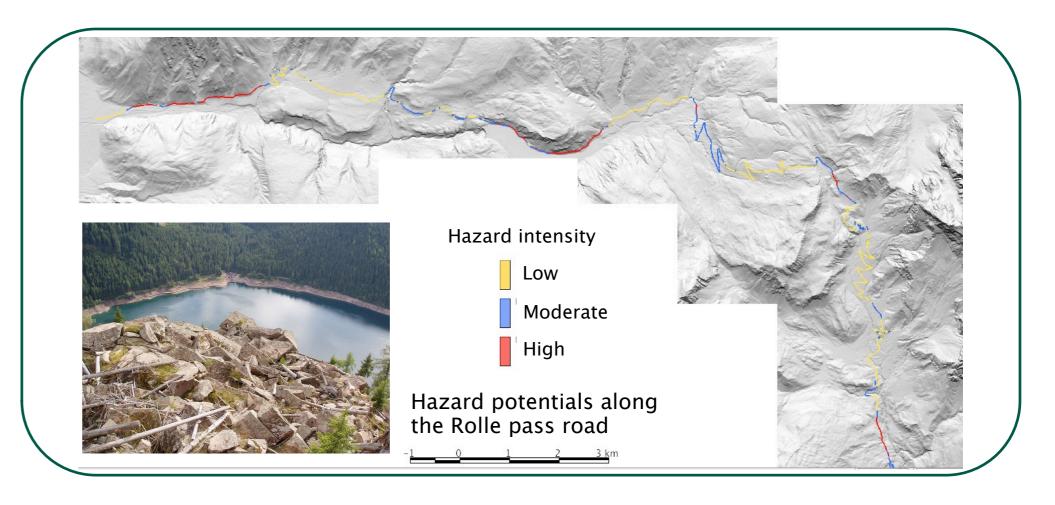




**PARAMOUNT** 

A new methodology for a 3D rockfall hazard analysis at regional scale application to a case study along the Grappa and Rolle pass road (Dolomites)



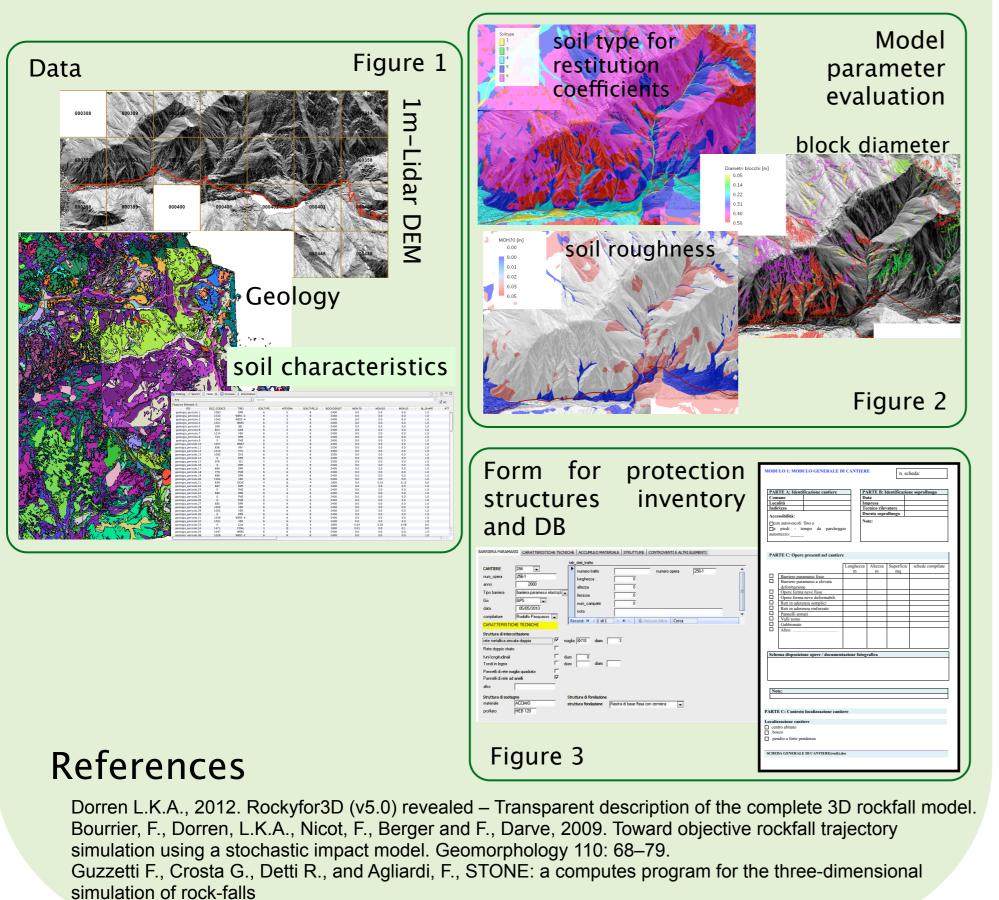


## Methodology

Aim: designing a methodology to investigate rockfall hazard potential with respect to alpine roads, as a tool for road management at regional scale. The outputs are expected to provide an overview of the most critical road sections and an estimate of potential damages (for cost analysis and decision support).

## Steps

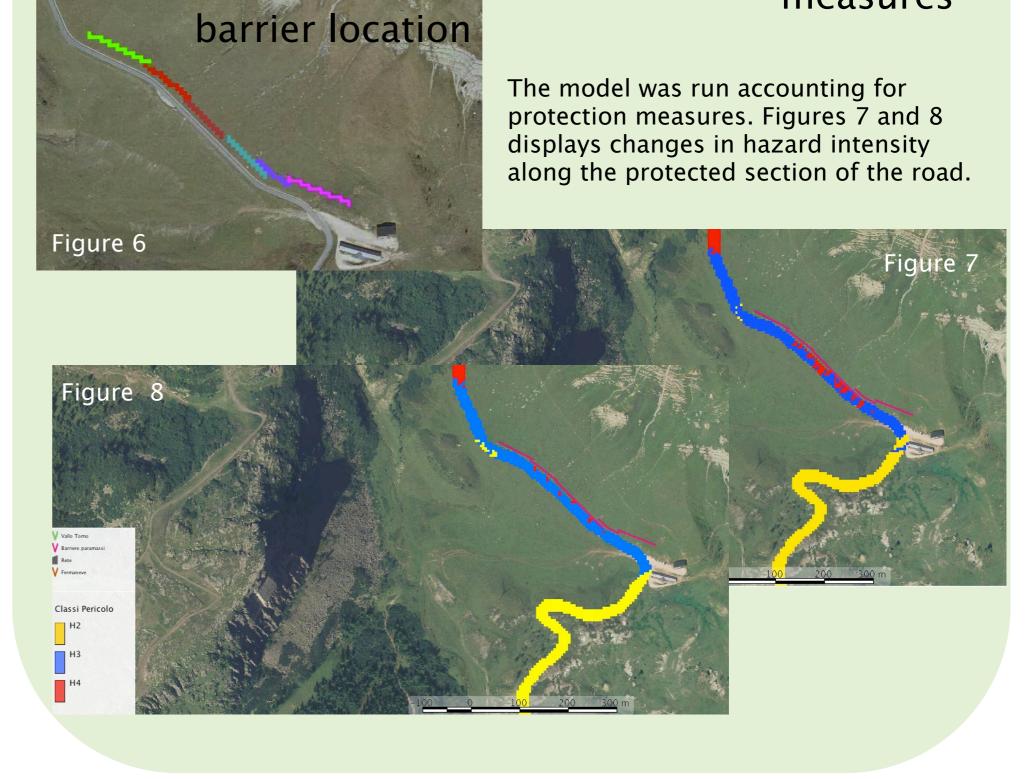
- Site characterization (morphology, geology, vegetation cover), Figure 1;
- Choice of an appropriate mathematical model; Rockyfor3D [Dorren et al., 2012];
- Model parameter evaluation from available data at regional scale, Figure 2;
- Inventory of on site protection measures and database filling (number, status, dimensions - Figure 3);



## Results

Rockfall hazard potential mapped along the road Road sections have been assigned their hazard potential Figure 4 Hazard intensity Low Moderate | | Figure 5 High L'

Evaluation of rockfall barriers as road mitigation measures



Authors Simoni, S.<sup>1</sup>, Pasquazzo, R.<sup>2</sup>, Zampedri, G.<sup>3</sup>, Campana, R.<sup>3</sup>, Cocco, S.<sup>3</sup>

- <sup>1</sup> Mountain-eering srl, Trento University-Spin off, via Siemens 19, Bolzano Italy
- <sup>2</sup> Geologia Geotecnica Ambiente, via Degol 12, Strigno, Italy
- <sup>3</sup> Geological Survey Trento, via Roma 50, Trento, Italy

Email: silvia@mountain-eering.com





