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## Validation and interpretation of data obtained by the newly developed low-cost Geodetic Integrated Monitoring System (GIMS)

**Ela Šegina**<sup>1</sup>, Mateja Jemec Auflič<sup>1</sup>, Tina Peternel<sup>1</sup>, Matija Zupan<sup>1</sup>, Jernej Jež<sup>1</sup>, Eugenio Realini<sup>2</sup>, Ismael Colomina<sup>3</sup>, Michele Crosetto<sup>4</sup>, Angelo Consoli<sup>5</sup>, Sara Luca<sup>6</sup>, and Joaquín Reyes González<sup>7</sup>

<sup>1</sup>Geological Survey of Slovenia, Geological information centre, Slovenia (ela.segina@geo-zs.si)

<sup>2</sup>Geomatics Research & Development srl, Lomazzo, Italy; eugenio.realini@g-red.eu

<sup>3</sup>GeoNumerics, S. L., Castelldefels, Spain; ismael.colomina@geonumerics.com

<sup>4</sup>Centre Tecnològic de Telecomunicacions de Catalunya, Castelldefels, Spain; michele.crosetto@cttc.cat

<sup>5</sup>Saphyrion Sagl, Bioggio, Switzerland; angelo.consoli@saphyrion.ch

<sup>6</sup>Sviluppo Como - ComoNExT SpA, Lomazzo, Italy; lucca@comonext.it

<sup>7</sup>European GNSS Agency, Praha, Czech Republic, joaquin.reyes@gsa.europa.eu

Geodetic Integrated Monitoring System (GIMS) has been developed as a low-cost solution for detecting and measuring ground movements (<https://www.gims-project.eu/>). The prototype has been tested on the landslide on Potoška planina in the north of Slovenia that has been monitored by the seven GIMS units. These units, consisting of GNSS receiver and inclinometer, provide live monitoring data with millimetric precision. In this paper, the project consortium presents the first results of the prototype measuring system and estimate its applicability in modern landslides monitoring. The GIMS measurements have been validated by the wire crackmeter located at the site. The data were correlated to the groundwater level in a piezometer and to the amount of precipitation detected at the rain gauge. Results of GIMS units show good comparability to the wire crackmeter measurements and increased precision in detecting variations in landslide movements. The latter enables us to precisely define the rainfall threshold value for the particular landslide as crucial information needed for a reliable early warning system.