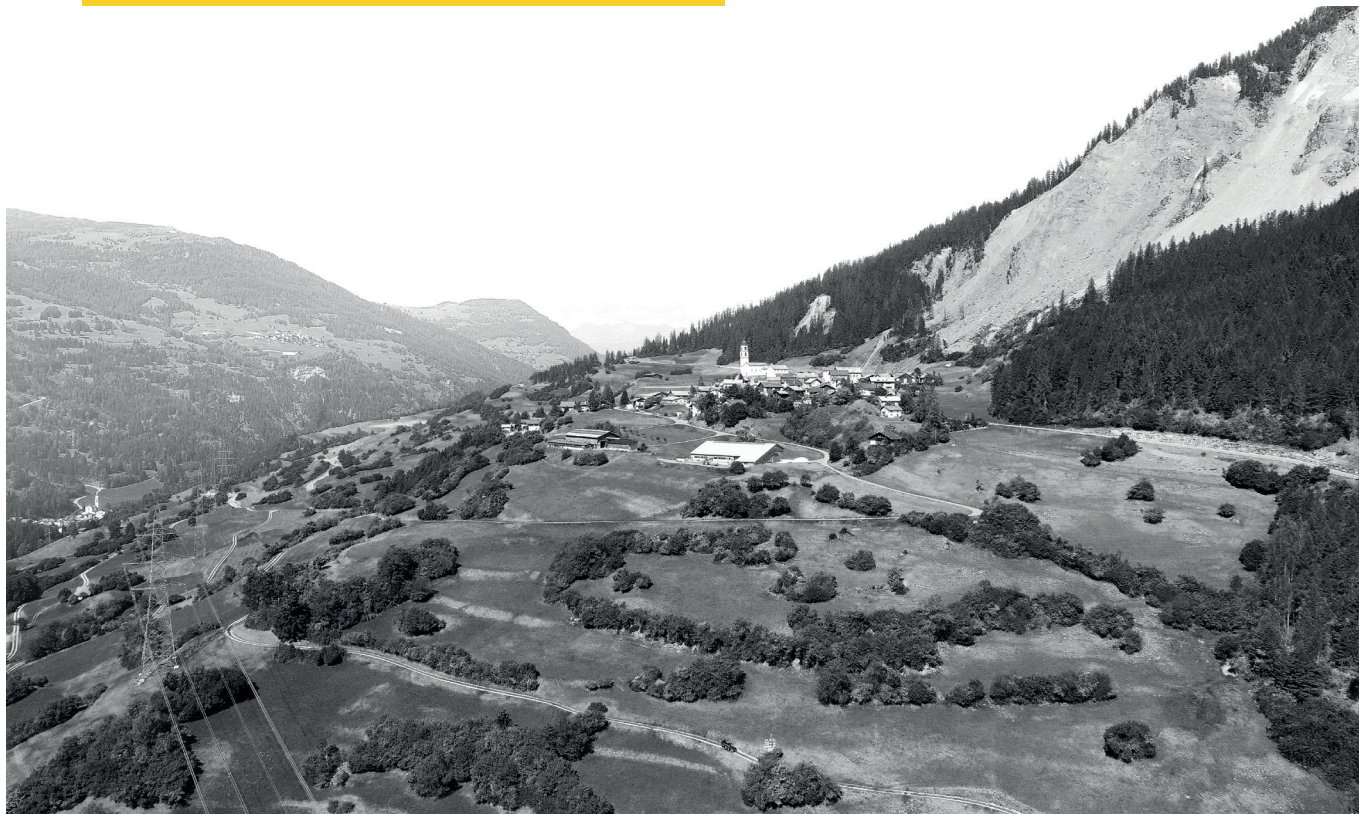


Sliding zone monitoring



PROJECT

In a large slide area, a traditional monitoring has been installed for years with a total station positioned within the endangered area.

Since October 2017, the position of the total station has been determined and tracked using HAPPY MONITORING with an accuracy of ± 1.5 mm. This eliminates the need for costly and time-consuming periodic re-determination of the position coordinates for the customer.

Thanks to the excellent results achieved during the 7 month test phase, HAPPY SURVEY was awarded the contract for the installation of additional HAPPY MONITORING sensors. To further improve the accuracy, a GNSS reference station HAPPY BASE with a baseline length of more than 3 km has been installed.

In open terrain the HAPPY MONITORING sensors are operating with solar panel and battery, with an autonomy of 40 days. The maintenance can be made anytime via Cloud system.

ACCURACY

24h: position $\pm 1,0$ mm, height $\pm 2,5$ mm
in the centre of the village
[with an average of 15 satellites]

24h: position $\pm 0,7$ mm, height $\pm 1,8$ mm
in open terrain
[average with 19 satellites]

INSTRUMENTS

4 x HAPPY GEM-X11

CUSTOMER BENEFITS

- Weather-independent precision in the mountains (snow, fog, etc.)
- Existing plant could be improved with independent measurements
- HAPPY BASE guarantees mm accuracy
- Simple data query via XML
- System control via Cloud system

CUSTOMER

HMQ AG Thusis