SATELLITE-BASED MONITORING SERVICE FOR LAND STABILITY ASSESSMENT



SATELLITE-BASED LAND STABILITY MONITORING SOLUTION.

The prediction and mitigation of land instability hazards have always been a real challenge for authorities and agencies or civil engineering. Pressed by human activities and climate change, these events' intensity and frequency are overgrowing.

It is becoming increasingly important to have effective monitoring systems to gather timely information and act proactively to protect people and infrastructures.



INDUSTRIES.

National and Local Administrations, Civil Protection, Geological Survey Agencies.

Transportation (Roads & Railways), Industrial plants, Construction.

Insurance companies, Professionals.



RHETICUS® SAFELAND.

Get an in-depth analysis, which thoroughly tracks any relevant ground displacement and slope instability within your area of interest.

The radar satellite analysis provided by Safeland leads to a reliable, user-friendly, periodical report that pinpoints any displacement to the millimeter while also tracking emerging trends and anomalies. In a nutshell, Rheticus[®] Safeland provides invaluable assistance with critical and timely information to let you plan land instability hazards prevention and mitigation campaigns.

BENEFITS



PREVENT RISKS TO ENSURE HAPPY CITIZENS AND SAFE INFRASTRUCTURES



ENHANCE LAND MONITORING AND RISK DETECTION



GET UP-TO-DATE SYNOPTIC VIEW OF LAND INSTABILITY RISKS



GET SMART ACTIONABLE REPORTS, ANALYTICS, AND MAPS



SAVE BOTH TIME AND MONEY

ACTIONABLE INSIGHTS FOR SAFER COMMUNITIES.

The classification is carried out by measuring **superficial millimetric displacements** due to natural or man-induced subsidence slow landslides and/ or subsidence. The synoptic view of the territory, both in urban and extra-urban areas, is completed by a **multi-year historical analysis** of the movements. The report includes indicators and actionable insight that provide an easy-to-read overview that allows users to make quick and informed decisions. All detailed info is accessible in a simple, user-friendly way by the Rheticus® geoportal, available **24/7 from any device.**



FROM SATELLITE TO YOUR HANDS IN 4 STEPS

Satellite image acquisition

Constantly updated information, ranging over the whole area of interest

Accessible, easy-to-read, and actionable report

Field investigation

EVERYTHING UNDER CONTROL.

Rheticus® Safeland offers a periodically updated synoptic view of the territory's stability level and a historical dataset of the superficial displacement levels over the land. The monitored area is divided into 250×250 meters of cells. Each cell is colored according to the attention it requires green, yellow, and red. The level of attention is determined by combining the measurements of surface displacement measured with satellite data with other parameters that take into account the topography, the vegetation cover, the level of infrastructure, and the human presence. The reports, periodically updated according to the user's contract, are sent via email as a PDF and available through the geoportal.







Up-to-date insights of land use/land cover changes



Pinpoint unstable

areas, improving

safety and planning

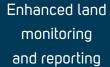




Detailed, Synoptic view of ground motion dynamics

Previous expertise with GIS or Earth Observation Data is not required







Cloud-based

GATHER GEOSPATIAL INTELLIGENCE, NOW.

operational activities.

of authorized distributors and on Planetek Italia's experience of over 25 years.



WHAT CUSTOMERS SAY

Monitoring with radar images acquired from the satellite on landslide areas has allowed us to drastically reduce the stability analysis of the slopes and to immediately identify the areas to pay attention to for the implementation of any on ground monitoring networks.

> Department of Soil Protection Friuli Venezia Giulia Region, Italy





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Developed by

