



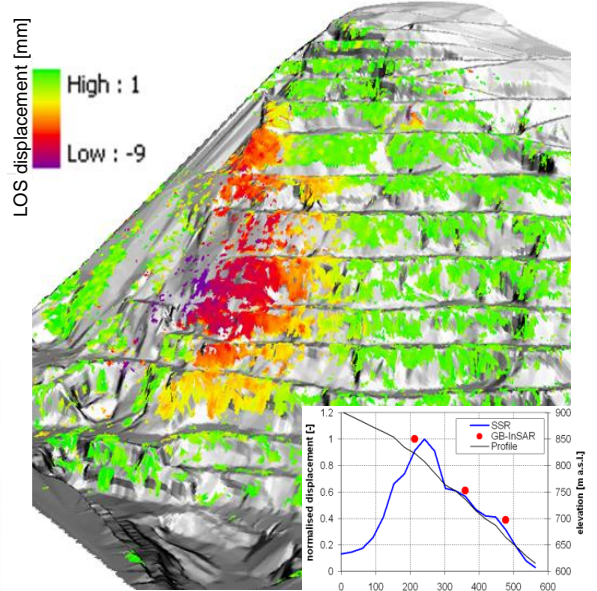
... A step ahead in monitoring structures and natural hazards ...

by Ground Based Interferometric Synthetic Aperture Radar LiSALab technology

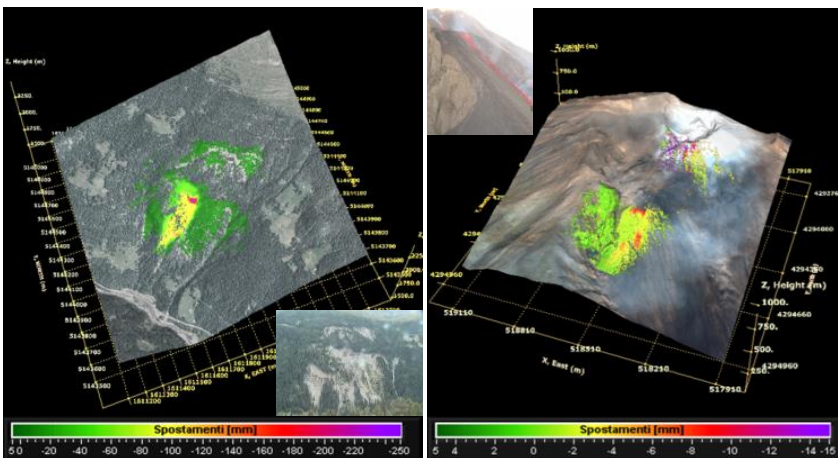
Ellegi's provides services and products for remote sensing measurement of displacements and deformations of natural hazards and manmade buildings using its own ground based SAR system, LiSALab system, in software production and system integration, production and developments of data acquisition, visualization and data-analysis systems.

LiSALab system at present is at its 5th generation of development since 2003.

One of the biggest point of strength of Ellegi is based on its high vertical integration. It can internally design, produce, sell, maintains and provide services and products using GBInSAR LiSALab technology, the customer can have all the answers.



GBInSAR LiSALab technology quarry monitoring example and displacements' field comparison between the GBInSAR measurements and FEM model results.



GBInSAR LiSALab technology results in monitoring a slope affected by a landslide (left) and a volcanic slope affected by deformation (right).

Landslide or moving areas mapping and boundaries identification is made easy by GBInSAR LiSALab technology.

Ellegi srl offers:

- **displacement fields measurement, control and monitoring service** of the deformation caused by natural hazards, in every operative conditions, including emergencies;
- **structural strain fields measurement, control, monitoring service** and diagnosis of the deformation affecting buildings, bridges, viaducts, dams, etc. etc.;
- **integrated monitoring systems** design, installation, management and maintenance and **GBInSAR LiSAmobile sale** in order to provide information about natural hazards or anthropic activity, that can generate or cause slopes or buildings instabilities.

Since 2003 Ellegi has provided services, systems and technologies in the world to the most important players in the monitoring sector.

Ellegi srl

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It acquires measurements with a greater velocity implementing the "on the fly" acquisition.

Rugged stand alone system with embedded processing and analysing capabilities.

Up to 5Km range.

Designed for a quick and easy installation.

It provides data, information and alarm, but also control from/to remote locations through different cabled and wireless connections.

Lower and optimised dimensions, weights and consumptions. High reliability and availability,



Results are immediately available on the web.

2D and 3D displacement maps or time series of the Point of Interest output.

Patented system.

Optimised and designed for emergency usages and real time monitoring even in harsh environments.

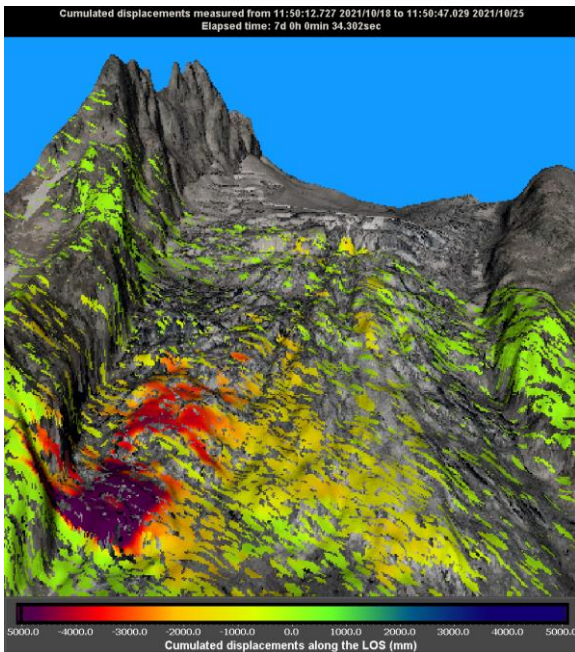
Standardised product but with the possibility to customise the HW and SW for the particular usage.

It allows permanent continuous 24h/365d monitoring and/or periodical measurement for years.

It provides results according to an internal coordinates system or to an universal external one, integrated with other localising systems and digital elevation model.

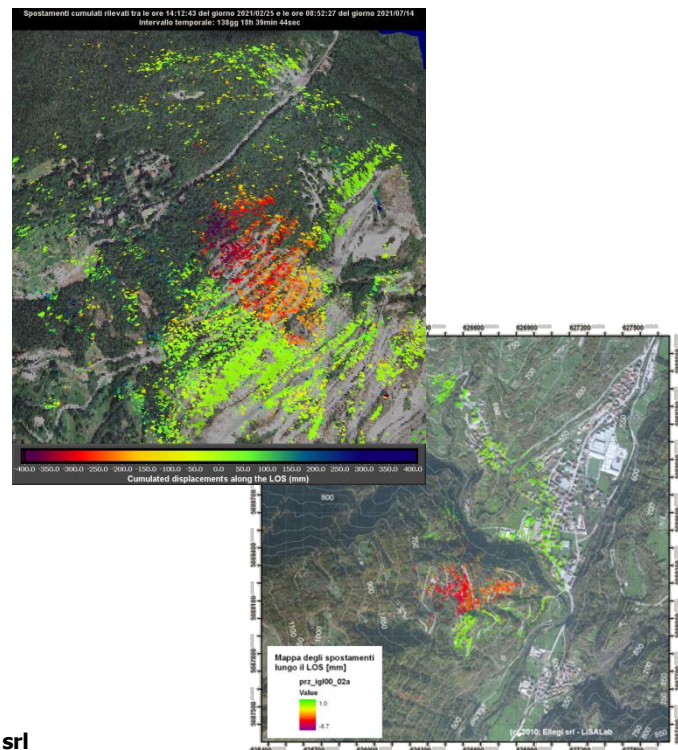
### Outputs and alarming

2Ds and 3Ds displacement maps, points of interest time series, alarms based on displacements or velocities.



### On the Fly acquisition

Implementing the patented «on the fly» algorithm, LiSAmobile system is able to acquire in 28 seconds an high resolution radar image @ 2.000m. This allows the end users to measure correctly speed of about 14.000mm/day.



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