

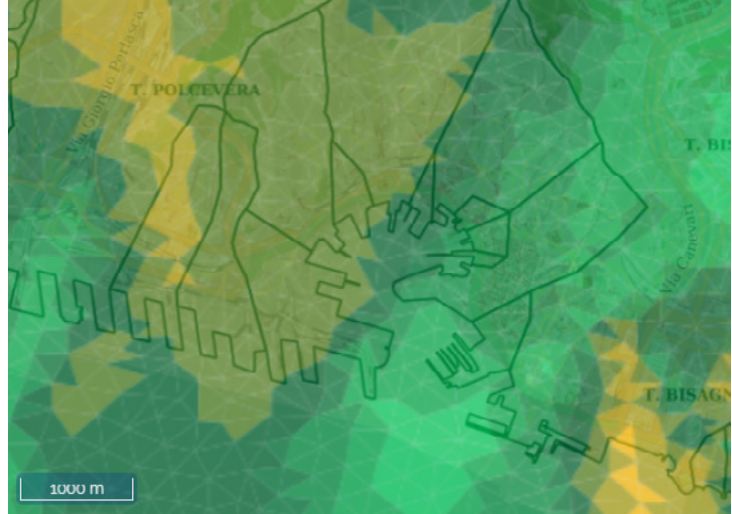


smartrainfallsystem

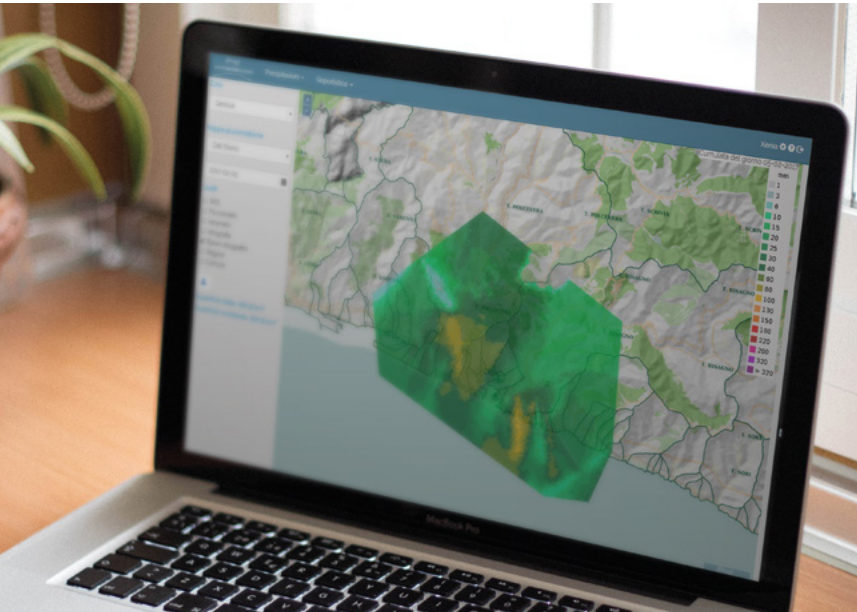
The innovative solution  
for monitoring rainfall in  
real time and managing  
hydrogeological risk



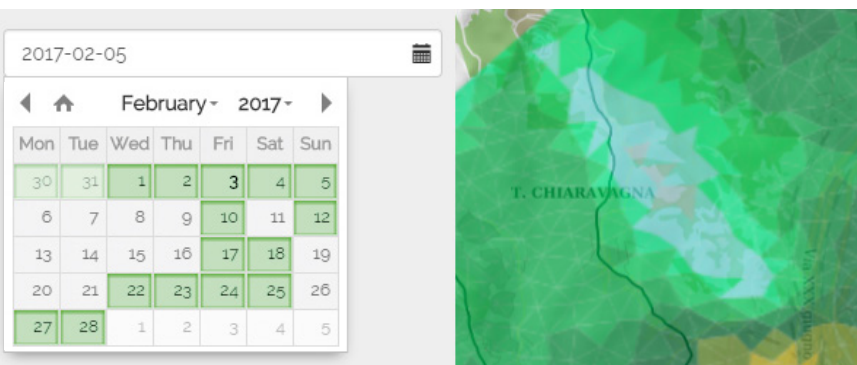
To monitor local rainfall developments using a more up-to-date and geographically precise sampling range than traditional sensors and warns of surface runoffs.



The mapping platform displays real-time rainfall distribution and critical hydrogeological conditions in the short term, and is designed for small to medium-sized natural and urban basins.



Information service for interpreting and identifying the hazard level of the current event, with an automatic alert when risk thresholds are exceeded.



Online access to the detailed event archive, which allows for accurate analysis and aids land use planning, hydraulic design and risk mitigation.



**Smart Rainfall System (SRS)** is an innovative, patented technological solution for **estimating and pinpointing rainfall** in real time and **providing short-term forecasts of hydrogeological risk**.

The measuring principle used by **SRS** is similar to radar, generating **high-resolution rainfall maps in real time** thanks to a **network of innovative, easy-to-install measurement stations** scattered over the area.

In order to provide more comprehensive information, the maps produced by **SRS** can incorporate measurements taken by **traditional sensors** (pluviometers, water gauges, anemometers, CCTV cameras, infrared systems, etc.), making the most of existing investments.

**SRS** is a **Decision Support System (DSS)** that allows for **faster, more efficient and cheaper hydrogeological risk analysis** compared to traditional solutions. **SRS predicts the consequences of rainfall** by monitoring whether critical rainfall levels have been exceeded in the basin and applying a semi-distributed continuous hydrological model.

**SRS** is the result of a **partnership with the University of Genoa** that dates back to 2012 and was built around innovation in rainfall monitoring. A **sustainable, innovative tool, it allows for improved regional management and a better response to hydrogeological emergencies**.



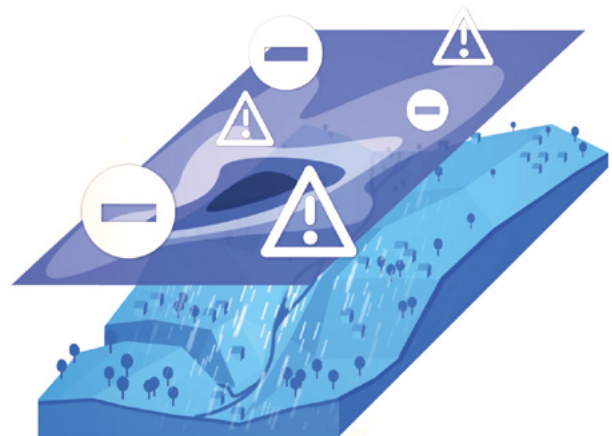
**RAIN BEGINS TO FALL**



**WE PROVIDE YOU WITH RAINFALL DATA AND RISK SCENARIOS IN REAL TIME**



**YOU CAN MAKE WELL-INFORMED, TIMELY DECISIONS WHEN IT COMES TO EMERGENCY MANAGEMENT**



## ADVANTAGES

Improved emergency forecasting and management, fact-based planning, efficient communication with locals.

Resilience of the region



Efficient management of the emergency.

Business awareness



The safety of people and property is quickly ensured.

Safety of individuals



Real-time information on flood and landslide risks.

Our **rainfall monitoring** and **risk management** service also includes **infrastructure** and **maintenance** costs.

With a clear annual fee and no hidden surprises, Artys offers:

- Design and installation of the monitoring network
- Integration of different sensors to those already installed in the area
- Hardware operation, maintenance and software system updates
- 24/7 access to rainfall maps and risk maps on the Web-GIS platform

**Smart Rainfall System (SRS)** is an **advanced, innovative solution** that takes advantage of a well-known telecommunications phenomenon: **the attenuation of electromagnetic waves** in the case of **precipitation** (see ITU-R P.838).

By **analysing the satellite TV signal** received by the very same dishes that we are used to seeing perched atop our homes, SRS creates **real-time, high-definition maps of rainfall intensity** that can be used **to check whether critical rainfall levels** have been exceeded in the monitored areas.

**SRS** also makes it possible to introduce **forecast models for surface runoffs** based on the basin's geomorphological features, which can be used to **estimate the impact of the rainfall**, paving the way to an **effective automatic alert tool**.



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