

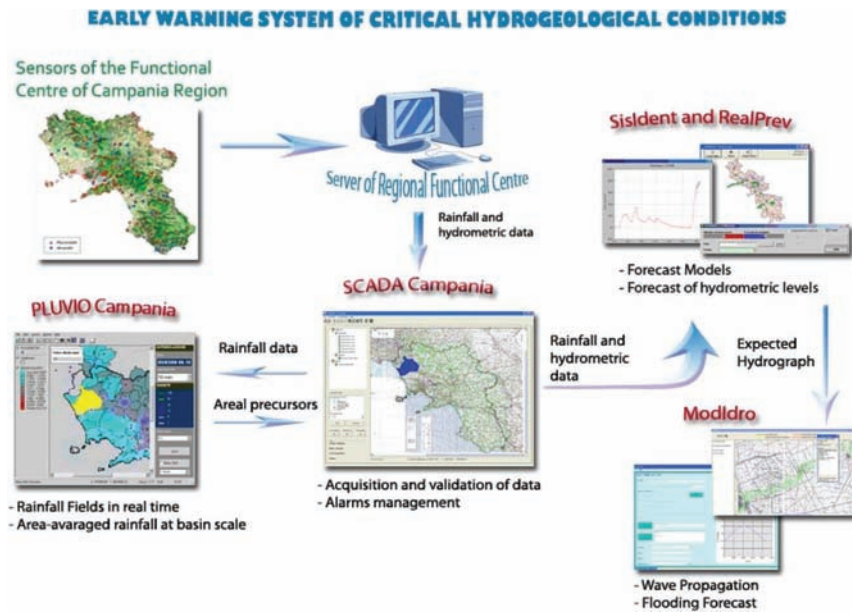
3. Implementation of an early warning system of critical hydrogeological conditions.



P.O.R. Campania 2000 ÷ 2006  
 Measure 1.6 - Documentation and monitoring  
 Centre for the knowledge, the prevention  
 and the management of hydrogeological risk



## Action A Studies and researches on risks and analysis of monitoring systems



Outline of the early warning system implemented at the Functional Centre of regional Civil Protection: rainfall and hydrometric data are acquired in real time by the sensors network managed by the regional Civil Protection. These data are validated by a SCADA platform and used for the rainfall levels forecast aimed at the management of alarms and the definition of potential flooding areas.



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**amra**  
 ■ analysis and monitoring of environmental risk

## PROJECTS BACKGROUND

The exposure to hydrogeological risk represents a relevant social issue in Campania Region, both for the number of victims and for the damages to buildings, industries and infrastructures. Moreover, potential climate change scenarios can increase this potential risk.

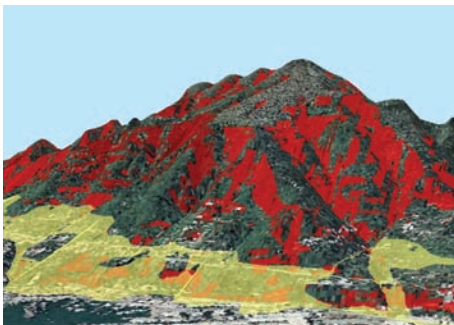
Besides hydrogeological risk, high anthropic pressure is increasing the erosion risk on coastal environment of Campania Region.

In this context, the Civil Protection of Campania Region performed different activities, in collaboration with Amra, aimed at developing tools to face the effects induced by extreme events:

- planning of activities for prevention and management of emergencies induced by hydrogeological and erosion risk;
- development of early warning systems.

## ACTIVITIES

1. Analysis of hazard, damage and risk scenarios of floods and landslides; implementation of prototype emergency plans for some Municipalities of Campania Region.



Example of map representing landslides triggering (red) and invasion (yellow) susceptibility.



Example of map representing elements at risk in landslide susceptibility areas



Example of map representing flooding areas.



Example of map representing element at risk in flooding areas.

2. Definition of expected levels of risk induced by marine factors and creation of an erosion risk map for the coast of Campania Region.



Example of map representing the erosion risk.