

PILOT APPLICATIONS

Liguria Pilot Sites

The Liguria pilot application for *Soil Consumption* scenario is located in the Tigullio Area (eastern part of Genoa Province), having more than 100,000 resident inhabitants and a coastline length of around 40km. This is a highly urbanized area with also a touristic vocation and coastal management problems.



The Liguria pilot application for *Landslides* scenario is located in the "Cinque Terre" and namely in the municipalities of Monterosso and Vernazza. In October 2011 the area was affected by extreme rainfalls which triggered debris flow and landslides, causing great damages to the buildings and infrastructures and the death of several people.

Toscana Pilot Sites

Toscana pilots, for both the scenarios on *Landslides* and *Soil Consumption*, are located in the NW part of the Region (in the areas known as Lunigiana, Versilia



and Garfagnana), having altogether a coastline length of around 60km. In these zones the connection between landslides and meteorological events is a very strategic aspect to consider, because of territory characteristics. This part of the region has been also affected by significant changes in relation to land cover, moreover considering their impermeable coverage.

Partnership



Beneficiary Coordinator: GISIG

Geographical Information Systems International Group (Genova, Italy)



ISPRA

Istituto Superiore per la Protezione e la Ricerca Ambientale (Roma, Italy)



Regione Toscana

Regione Toscana (Firenze, Italy)



CONSORZIO LaMMA

Consorzio LAMMA (Firenze, Italy)



Epsilon
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LIFE+IMAGINE

**Integrated Coastal Area
Management Application
Implementing
GMES/Copernicus, INSPIRE
and SEIS Data Policies**



Project N° LIFE12/ENV/IT/001054

LIFE+IMAGINE is a project of the LIFE+ Call 2012, co-funded by the LIFE+ Programme Environmental Policy and Governance, objective "Strategic Approach"

www.life-imagine.eu

LIFE+IMAGINE deals with the integrated management of coastal zone (ICZM) and with the enforcement of knowledge base on environmental and data policies for the coastal zone planning and governance.

LIFE+IMAGINE, through methodologies for environmental analysis, provides hands-on information to support coastal planning, decision making and reporting, with particular reference to two environmental scenarios:

- Soil consumption in coastal zones
- Landslides in coastal zones

To this aim, **LIFE+IMAGINE** implements an infrastructure based on web services for environmental analysis, integrating specifications and achievements from the INSPIRE Directive, the SEIS Communication and the Copernicus programme.



TARGET USERS

- Regional Authorities
- Municipalities and Provinces
- Civil Protection
- Regional Environmental Agencies
- River Basin Authorities
- National Environmental Agencies
- Park Authorities
- NGOs and Associations
- Citizens

LIFE+IMAGINE focuses on the coastal area, a zone of intense human activity and of interchange between physical, biological, social, cultural and economic processes. It is composed of multiple interacting systems. Changes, at any point and in any part of the system can generate chain reactions also far from their point of origin. **LIFE+IMAGINE** focus is given on two environmental scenarios, **soil consumption** and **landslides** in coastal zones, which are representative of major problems affecting the Mediterranean coasts. In the last ten years, in fact, the combination of two main factors, such as the anthropogenic soil sealing due to wild urbanization and the intense rainfall events, has deeply modified the real territory and strongly increased the occurrence of floods and landslides in populated areas.

SHORT - TERM RESULTS

Soil Consumption Scenario

- Production, from multi-sources data (local data and Copernicus data), of indicators on the land consumption in coastal areas, to be used for planning, reporting and dissemination to the public
- Monitoring of changes in land cover, land use and related soil sealing in the past years

Landslides Scenario

- (Re)shaping of risk analysis models, based on datasets compliant with the INSPIRE Directive
- Definition of standardised procedures to create landslide risk maps, identifying, for specific meteorological events, the inference area of phenomena occurrence
- Definition of a procedure to evaluate environmental impacts, with a set of indicators to estimate % of population/territory/infrastructures involved by landslide events

MID - TERM RESULTS derive by the application in integrated coastal zone management of the LIFE+IMAGINE web services infrastructure. They are tightly related to the availability, offered by the project, of new, usable and accessible environmental information to:

- Better assess the impacts of landslides and land consumption, by calculating in which measure the investigated zone is affected by these problems
- Mitigate the impacts through the prevision and the monitoring of these problems
- Improve and, in a longer term, reshape the planning processes, by proposing interventions aimed at removing the impacts

