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# PANORAMA Italia | Malta

Operational Programme Italy-Malta 2007-2013



## IN THIS SECOND NUMBER

*Apart from its intrinsic beauty, this lovely photo was chosen to open the October-December 2013 edition of the topic selected as the focus of this edition: the environment and joint actions for the prevention of natural and man-made risks to it.*

### >> **MONITORING AND SAFETY**

in the **SKIES** and on the **SEAS** of the cross border area

*joint action has been undertaken for the prevention and mitigation of natural risks through the use of advanced technological systems for territorial monitoring and the control of shared risks in the cross border area:*

project **VAMOS SEGURO**

*joint action has been undertaken in the monitoring and management of sea pollution caused directly by man, employing technologically advanced systems for the surveillance of the cross border area:*

project **CALYPSO**

## FURTHERMORE...

### >> **COOPERATION BIKE TOUR & EVENTS** in Ragusa and Malta to celebrate the **EUROPEAN COOPERATION DAY 2013**

*Promoted by the European Commission to show the local population the benefits of European territorial cooperation and to disseminate the results achieved by the projects that received financing.*





**CREATE** an automatic monitoring and forecasting system regarding the dispersal of volcanic ash over the cross-border area that aims at identifying the areas of risk for aviation.

Etna's volcanic clouds, in fact, disperse a great quantity of ash that constitutes a danger for both civil and military aviation in the area between Sicily and Malta. The collision between volcanic ash and aeroplanes in flight can create serious problems to the windshield, with the consequent loss of visibility and also cause

the malfunctioning of engine instrumentation.

The **VAMOS SEGURO** project has created an automatic monitoring and forecasting system regarding the dispersion of Etna's volcanic ash in the cross-border area thanks to the use of complex instrumentation among which the LIDAR system (see box), developed *ad hoc* by the CNISM research workers. This system is able to identify the areas between Sicily and Malta that, in the event of explosive activity, will be concerned with dangerous concentrations of volcanic ash and gases and produce alert systems for the authorities responsible for air traffic.

The newly installed measurement devices are able to collect important data on volcanic activity and airborne particulate. This moni-

toring is supported by the use of models able to forecast the dispersal of volcanic clouds.

The value of the project has received international recognition and its results have been presented in numerous international scientific publications and conferences.

**THE INTERESTED AREAS:** Catania, Caltanissetta, Siracusa and Malta.

**THE PARTNERS:** Istituto Nazionale di Geofisica e Vulcanologia - Osservatorio Etneo (lead partner); Istituto Nazionale di Astrofisica - Osservatorio Astrofisico di Catania; Comune di Montedoro (CL); University of Malta - Atmospheric Research and Physics Department.



**THE LIDAR SYSTEM**

The acronym for Light Detection and Ranging defines a remote sensing technique able to determine the distance of an object or a surface using laser impulses, apart from determining the concentration of specific chemicals in the atmosphere.

The LIDAR, differently from radar, uses ultraviolet wave lengths and this makes it possible to locate and receive images of, and information about, very small objects. For this reason LIDAR is extremely sensitive to aerosol and particles dispersed in clouds.



**MONITOR** the surface currents and waves in the Sicilian Channel through the use of a remote observation system based on a network of high frequency radars (HF radars).

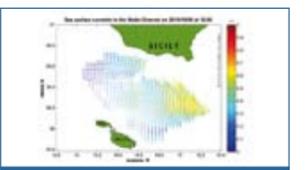
**Calypso** has set up a stable operating system for monitoring the sea's surface currents and waves in the Sicily-Malta channel through the use of a remote observation system based on a network of HF (High Frequency) radars able to produce an hourly map.

The partnership (see box) has installed three HF radars: two in the northern part of the island of Malta and one on the southern

Sicilian coast. The data flows into a computer that also oversees the distribution via web of the maps elaborated by the system. The collected data, together with numerical modelling methods, support the intervention of the appropriate authorities in the case of oil spills at sea.

Furthermore, the system developed by **Calypso** represents a useful navigational support tool in that it provides a better understanding of the marine currents and guarantees their monitoring and surveillance in critical areas. Thanks to a wide network of in-

terested parties the project guarantees the fullest use of the high frequency radar system through the exchange of information and protocol set ups to improve the coordinated capacity of intervention and surveillance between the Maltese and Sicilian authorities in the event of accidents and/or emergencies.



**SITES - PARTNERS**

**Observation sites:** Ta' Soppu - Nadur (Gozo), Ta' Barkat - Xghajra (Malta), Pozzallo (Ragusa).

**Partners:** University of Malta - Physical Oceanography Unit, IOI-Malta (lead partner); Transport Malta; Civil Protection Department; Armed Forces of Malta; Agenzia Regionale per la Protezione dell'Ambiente; Consiglio Nazionale delle Ricerche - Istituto per l'Ambiente Marino Costiero; Università di Palermo - Polo Universitario di Trapani; Università di Catania - Centro Universitario per la Tutela e Gestione degli Ambienti Naturali e degli Agro-ecosistemi.

When fully operational, the acquisition of data over a wide area with its multidisciplinary strengths will bring a sharp improvement into understanding the physical dynamics of the Sicily-Malta channel, thus guaranteeing the necessary data base for diverse applications.

**>> VAMOS SEGURO - Volcanic Ash Monitoring and Forecasting between Sicilia and Malta and sharing of the results for aviation safety**



**STRASBURG RECOGNIZES THE RESULTS.**

10<sup>th</sup> September 2013, the results of the project were officially presented to the European Parliament in Strasbourg.

**Vamos Seguro** was one of the five best practices – as determined by the European Commission – in terms of the mitigation and prevention of natural risks from among the hundreds of European Territorial Cooperation projects financed by the structural funds within the programming period 2007 - 2013. This important recognition came within a discussion about the programming of European funding 2014 - 2020 where representatives of the Sicilian Government; the European Commissioner, Hahn; the director in the European Commission's DG Regional Policy with responsibility for the Territorial Cooperation,

Palma Andrés; the director of the Regional Committee, Thieule and representatives of the regions involved in the Territorial Cooperation programme were present.

The debate ended with the inauguration of a photographic exhibition and the screening of a video made by the European Commission with the support of the INTERACT programme.

The video can be seen on Youtube through the following links:

<http://www.youtube.com/watch?v=n3EQK0q-JYg> (French language)

<http://www.youtube.com/watch?v=kD6pCn2m0hU> (German language)

<http://www.youtube.com/watch?v=6qK2T42W8rw> (English language)

Web site:  
[www.ct.ingv.it/vamosseguro](http://www.ct.ingv.it/vamosseguro)  
Lead partner: Dr Simona Scollo  
Istituto Nazionale di Geofisica e Vulcanologia  
[simona.scollo@ct.ingv.it](mailto:simona.scollo@ct.ingv.it)

Monitoring the skies with cutting-edge technology means increasing flight safety.



**>> CALYPSO - HF Radar Monitoring System and Response against Marine Oil Spills in the Malta Channel**

Web site:  
[www.capemalta.net/calypso](http://www.capemalta.net/calypso)  
Lead partner: Prof. Aldo Drago  
University of Malta  
[aldo.drago@um.edu.mt](mailto:aldo.drago@um.edu.mt)

A project that exploits high frequency to guarantee high security in the Sicily-Malta Channel.



**MONITORING TO COMBAT OIL SPILLS!**



The loss of oil from oil tankers, known as oil spills, gravely compromises the terrestrial environment.

Oil in fact has a lower specific weight than water, therefore forming a film impermeable to oxygen over its surface, causing apart from the evident physical and toxic damage to the macro fauna, oxygen starvation that kills the plankton. The subsequent precipitation to the sea bed replicates the effect on the organisms living there. Reclaiming the damaged environment can take months or even years. According to the International Maritime Organization oil spills have significantly decreased over the last ten years; their consequences, however, remain extremely serious for the Mediterranean flora and fauna.

To find a remedy for such damage and limit its effects the **Calypso** system, thanks to the cutting-edge technological instrumentation and wide network of actors involved, provides maps of surface currents at hourly intervals (data impossible to measure with other tools); intersecting the acquired data with the output from simulated numerical models it is possible to determine the route of the oil slick and effectively intervene before it reaches the coast.

The system also determines the best place to set out the containment barriers to protect the coast. Furthermore, through backtracking, Calypso is able to establish the point where the spill took place.

## COOPERATION BIKE TOUR & EVENTS

The second edition of the European Cooperation Day 2007-2013, officially celebrated Europe-wide 21 September 2013, was a great success in Sicily and Malta with the organization of regional events that involved the local population. The joint event was aimed at illustrating the results achieved by the territorial cooperation projects under the Italia Malta 2007-2013 Programme and how they benefit local citizens.



In **Malta** MEAIM, the Funds and Programmes Division, as the National Authority for the Coordination of the Italy-Malta 2007-2013 Programme, promoted territorial cooperation through numerous events disseminating the results of the projects financed by the programme. These consisted mainly in the screening of documentaries and visits to the localities connected to the T-CHEESIMAL, PANACEA, and ARCHAETUR projects; the SIMBIOTIC project saw to the planting of trees and shrubs typical to the Mediterranean bush; the IMAGENX project organized seminars and public events such as *Science in the City* (La Valletta).

In **Sicily**, the Sicilian Region as the Management Authority of the Italy-Malta Cross border Cooperation Programme 2007-2013 organized the *Cooperation Bike Tour*, a tourism cycling event that took

place in Ragusa along the two routes created by the SIBIT - MED in Bike project.

Along the *Route "Barocco"* and the *Route "Carrubi"* the participants visited the catacombs and hypogea in Cisternazzi and Trabacche which had been restored by the ARCHAETUR project, and at the Donnafugata Castle they were accompanied by experts from the Cultural Heritage Superintendency of Ragusa and the Italian Federation Friends of the Bicycle – FIAB onlus. At the conclusion of both routes the participants were accompanied to Ragusa Ibla where they were met by the mayor and the head of the Ragusa Provincial Government at Palazzo La Rocca which houses the International Centre for Stereotomy created by the LITHOS project.

The *Cooperation Bike Tour* ended with a visit to the European Coop-

eration Day stand, set up by the Ragusa municipality in Ibla, where promotional material was distributed about all the projects financed by the Italy-Malta 2007-2013 Programme.



The *EC Day* continued in the afternoon with a visit to the Dairy-farming Research Consortium (CoR-FiLaC) which organized a cheese tasting and Sicilian-Maltese wine tasting which were the subjects of study by the T-CHEESIMAL and PROMED projects.

### EC DAY 2013 IN EUROPE

- >> 173 Events
- >> 32 Regions
- >> 145 Cities
- >> 61 Programmes of cooperation

**BE PART OF IT !**

The European Cooperation Day is an event promoted by the European Commission, the European Parliament, the Regions' Committee and coordinated by the INTERACT programme.

The Day's themes received widespread media coverage throughout Italy thanks also to live interviews conducted by Federico Taddia in **L'Altra Europa** transmission broadcast nationally by **Radio 24**. The nationwide radio service belongs to Il Sole 24 ORE, Italy's main economic newspaper, a reference point for professionals, entrepreneurs, and public adminis-

tration officials wanting in-depth economic, political, and administrative news at the national and European level.

The interviews from Valencia and Ragusa to representatives of the INTERACT and PO Italia-Malta 2007-2013 programmes, Amaro Montan and Marco Sambataro set out the spirit of the Day, that is, to show the citizens that the good use of community funds creates solutions to problems countries of the Union have in common. To this end, the example of the **Vamos Seguro** project illustrated concretely that the

collaboration between Sicily and Malta in the ambit of the Italia-Malta 2007-2013 territorial cooperation programme has allowed shared solutions to be found to a common problem, that is, a joint monitoring of Etna's volcanic ash clouds to guarantee the safety of flights in this area of the Mediterranean.

The cycle of events organized in Malta for the European Cooperation Day 2013 had the same nationwide coverage. The topics and events promoted on the Day were widely reported in the main Maltese national press.