



TOSCA

NETWORK FOR A BETTER RESPONSE
TO MARITIME ACCIDENTS

EFFICIENT RESPONSE TO MARITIME ACCIDENTS IN THE MEDITERRANEAN

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FROM MARITIME DISASTERS

ERIKA, Don Pedro, Prestige. . . Lethal effects of mineral oils on fragile marine and coastal ecosystems are now well known. The increasing importance of Eastern Mediterranean ports and the traffic density concentrated around Western and Central Mediterranean ports are constantly raising the risk of an important marine incident. For these reasons, Med partners need to work together on a stronger current monitoring system and on effective action plans in case of maritime accidents.

TO AN OPTIMIZED RESPONSE SYSTEM

Risks and damages caused by a maritime accident can be reduced with the help of better forecasts and efficient monitoring systems. The TOSCA project (Tracking Oil Spills & Coastal Awareness network), cofinanced by the European Regional Development Fund in the framework of the MED Programme, intends to improve the quality and effectiveness of decision-making process in case of maritime accidents in the Mediterranean concerning oil spill pollution and search and rescue (SAR) operations. This will be done with the help of a network including local authorities, policy makers and scientists, with a scientific maritime monitoring and forecasting system and with the implementation of decision support tools and action plans.

TOWARDS A UNIFIED MEDITERRANEAN COASTAL MANAGEMENT SYSTEM

The TOSCA partnership intends to reinforce the Mediterranean coastal management system in the framework of the existing international agreements and in respect of the national rules. To ensure the transfer of the TOSCA project results to other Mediterranean countries and maritime actors, new partners will be able to join the consortium and share best practices.



The project concerns a wide range of professionals involved in operational, strategic and scientific aspects to ensure an efficient response in the event of a maritime accident.

- › Local authorities and public administrations in charge of emergency plans in case of maritime accidents.
- › Policy makers involved in environment and maritime safety issues.
- › The scientific community working on oceanographic projects and research.

Citizens will also benefit from the results and outcomes of the TOSCA project through improved preservation of the marine and coastal environment and more efficient search and rescue (SAR) operations.

MAIN PROJECT OBJECTIVES

DEVELOP

A SUSTAINABLE SCIENTIFIC MONITORING & FORECASTING SYSTEM

Through the construction of an observational network, based on state of the art technology (HF radars and drifters), the project will provide real-time observations and forecasts of the marine environmental conditions in the Western and Eastern part of the Mediterranean Sea. The system will be installed and assessed in five test sites on the coastal areas of oil spill outlets (Eastern Mediterranean) and on high traffic areas (Western Mediterranean). The use of state of the art technology will provide more accurate oil spill tracking and trajectory forecasts.

CREATE

A SUPPORT TOOL FOR DECISION-MAKING PROCESS IN CASE OF MARITIME ACCIDENTS

Gathered data will be combined in a useful decision support tool for authorities in charge of marine emergency response. Based on the needs of local authorities around the Mediterranean, the system will be implemented on a territorial scale and will provide critical information to support decision-making process in case of maritime accident (objects and oil spill tracking and trajectories, ocean current and dispersion maps, mapping of risk areas, vulnerability maps. . .)

ELABORATE

A COMMON MANAGEMENT STRATEGY ON OIL SPILL AND SAR OPERATIONS

The network will be used to implement action plans in collaboration with local authorities as well as a common scientific strategy in cooperation with policy makers to provide immediate response, mitigation and long term management of oil spill pollution and SAR operations in case of marine accidents.



Coastal radar is a powerful tool for observing the surface ocean currents in a quasi synoptic way.

TOSCA represents the first European effort to build a radar network to monitor the surface currents in the Mediterranean Sea, for correcting the model forecasting systems, for oil spill dispersion applications and for search and rescue activities. The added value of the TOSCA network is the pooling of different and new platforms, complementary competencies, and the presence of local authorities in the partnership.

MIO

Mediterranean Institute of Oceanography, Toulon University



What is the nature of the pollution? Where is it now? Where and when will it hit the coast? These are

the questions the authorities in charge of the management at sea of a pollution crisis have to face. The TOSCA project develops a new approach for collecting information about a maritime pollution and its possible drift. The efficiency of drift pollution prevision is a main element in the organization of the operational answer and of its success. It determines the deployment and management of the teams and equipments specialized in the protection of environment.

PREMAR MED

Prefecture of Mediterranean Sea, French State

*KEY PROJECT MILESTONES: « FROM THE ANALYSIS OF PAST
DRAMATIC EVENTS TO THE DEVELOPMENT OF RESPONSE STRATEGIES »*

The project is built on parallel actions
which will lead to:

- › The implementation of a **geospatial information system** supplying critical data to support local authorities decision-making in the event of a maritime accident.
- › The establishment of a **common coastal management strategy** to identify and mitigate pollution spreading and ensure a long term management of the pollution in the Mediterranean.

FROM 01/09/2010
UNTIL 31/08/2012

› Step 1:
Analysis of past
dramatic events and
state of the art in
maritime forecasting

FROM 01/03/2011
UNTIL 28/02/2013

› Step 2:
Assessment of the
monitoring system in
five test sites through
experimental surveys
and tools test

FROM 01/09/2011
UNTIL 31/08/2013

› Step 3:
Development of case
scenarios and action
plans in collaboration
with local authorities
and policy makers





A EURO-MEDITERRANEAN PARTNERSHIP

The TOSCA consortium involves 12 partners from 4 countries of the Eastern and Western Mediterranean area, namely: France, Italy, Greece and Spain. The project is managed by the PACA Sea Innovation & Business Cluster - Toulon Var Technologies (PMP-TVT) and scientifically coordinated by the MIO (Mediterranean Institute of Oceanography) - Toulon University.

By bringing together local authorities and internationally recognized laboratories, the partnership combines expertise in marine forecasting systems and experience in emergency response and action plans.



PMP-TVT (LEAD PARTNER)



MIO (SCIENTIFIC COORDINATOR)



PREMAR MED



UAEGEAN



IASA-UAT



REMTH



TEI PIRAEUS



DISAM



OGS



CNR-ISMAR



IMEDEA (UIB-CSIC)



ICM-CSIC

The « Balearic Island Government » and the CEDRE Institute « Centre of Documentation, Research and Experimentation on Accidental Water Pollution » have joined the consortium as associated partners.

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<http://lseeet.univ-tln.fr>
- › **PREMAR MED**: Prefecture of Mediterranean Sea - French State, France.
www.premar-mediterranee.gouv.fr
- › **UAEGEAN**: University of the Aegean Department of Marine Sciences, Greece.
www.mar.aegean.gr
- › **IASA-UAT**: Institute of Accelerating Systems and Applications - Athens University, Greece.
<http://www.oc.phys.uoa.gr>
- › **REMTH**: Region of East Macedonia and Thrace, Greece.
www.pamth.eu
- › **TEI PIRAEUS**: Technological Education Institute of Piraeus, Greece.
<http://w3i.teipir.gr/sl/TEI-EE>
- › **DISAM**: Department of Environmental Sciences Parthenope University, Italy.
www.disam.uniparthenope.it
- › **OGS**: National Institute of Oceanography and Applied Geophysics, Italy.
www.ogs.trieste.it
- › **CNR-ISMAR**: National Research Council Institute of Marine Sciences, Italy.
www.ismar.cnr.it
- › **IMEDEA (UIB-CSIC)**: Mediterranean Institute for Advanced Studies - Balearic Islands University, Spain.
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