

## Multinational Response and Preparedness to Oil and Chemical Spills

The need for regional cooperation in the NE Atlantic to face marine pollution has been previously demonstrated by historic accidents in Spanish, Moroccan, French and Portuguese coasts. The Lisbon Agreement, recently ratified (2014) by the mentioned countries and EU, envisions the cooperation in the case of pollution incidents. Transnational strategies to face

marine pollution with hazardous and noxious substances (HNS) and especially with oil spills have been under development in different regions in the context of international agreements and EU RTD projects. However, the Atlantic sub-region involving Morocco, Madeira and Canary Islands has not been similarly prepared in an integrated fashion. Furthermore, recent oil and gas prospecting and drilling activities are increasing the awareness of potential environmental threats in this area. Although spill accidents with HNS are not as frequent as oil spills, their impacts, the variety of products and increasing volume transported justify the development of regional and cross border capacities to respond to both spill types. This is



particularly relevant in the studied area, which is environmentally sensitive and socio-economically dependent upon marine resources and marine-based tourism. Built on previous EU efforts, and in compliance with parallel international protocols (e.g. OPRC-HNS), strategies and current EU RTD initiatives, MARPOCS promotes a common operational framework supported with state-of-the-art model-based decision support tools and exercises for oil and HNS spills, adapted to the region and supported by cross border cooperation, implementation and training of local, regional and national authorities. This strategy will strength the capacity for mutual assistance and multinational preparedness and response to accidental pollution episodes this cross-border sub-region, planned in the Lisbon Agreement in as (http://www.dgpm.mam.gov.pt/Pages/CILPAN.aspx).

## **Objectives**

The overarching goal of this project is to take advantage of previously developed work at international and EU level in different aspects of accidental marine pollution, and to develop and implement an integrated operational framework for preparedness and response to oil and HNS spills in the Atlantic sub-region involving Morocco, Madeira and Canary Islands in the context of Lisbon Agreement, making it easily transferable and extendable to other areas.

The general objective is achieved by the sharing and development of common guidelines, methodologies, model-based decision support tools and exercises adapted to the regions of study and promoted by effective implementation and training of local, regional and national authorities. MARPOCS will also promote the exchange of technologies and information between all the partners, and between authorities of the different countries. The specific objectives comprise:

- Implementation of a common set of operational and tactical model-based decision support systems (DSS) supported by a previously developed generic 3D oil & HNS spill modelling system (MOHID), updated and calibrated for HNS (studied in HNS-MS and complemented with MARPOCS) using new or improved high resolution metocean forecasting systems.
- Automatic early warning forecasting systems connected to existing maritime surveillance technologies and automatic services, like EMSA's CLEANSEANET service and AIS systems.
- Training sessions, courses, exercises and hands-on demonstrations, with special focus on emergency preparedness or response scenarios involving multiple nations.
- Characterization of shoreline holistic risk from spills in the area of interest, in order to identify "hot spots" and to better manage the distribution of response resources.

Project consortium: MARETEC-IST (coordination), CEDRE (France); Action Modulers (Portugal); PLOCAN – Plataforma Oceanica de Canarias (Spain); Univ. Las Palmas de Gran Canaria (Spain); INRH – Institut National de Recherche Halieutique (Morocco); OOM- ARDITI – Observatório Oceânico da Madeira (Portugal)

Support / Advisory Board: APRAM / Portos da Madeira (Portugal); Proteção Civil da Madeira (Portugal); Directorate General of Security and Emergency of Canarias Government, Spain (Spain); SASEMAR (Spain); DCPM-DGAM (Portugal); African Maritime Safety and Security Agency (AMSSA); Secretary General for Marine Fisheries at the Moroccan Ministry of Agriculture and Marine Fisheries of Morocco; Ministry of Energy, Mining, Water and Environment of Morocco; DGPM (Portugal); MARINER project (EU); HNS-MS project (EU)