

TOSCA

# FINAL EVENT

TOULON 10/07/13

**TOSCA**  
NETWORK FOR A BETTER RESPONSE  
TO MARITIME ACCIDENTS

[WWW.TOSCA-MED.EU](http://WWW.TOSCA-MED.EU)



Projet cofinancé par le Fonds Européen  
de Développement Régional (FEDER)  
Project cofinanced by the European Regional  
Development Fund (ERDF)

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# Conclusions & perspectives

-> *Anne MOLCARD, MIO/USTV*



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European Regional Development Fund

## Results

- ✓ OIS provides real-time access to multi-platform data (HF-RADAR, drifters and models), to tracking simulators, to model corrections
- ✓ HF RADAR provide satisfactory estimates of transport.
- ✓ Models have higher (twice) errors.
- ✓ The use of coastal HF radars can greatly improve our response to oil-spill and S&R emergencies (at night, for hindcast & backtracking)
- ✓ Both radar and models can be significantly improved blending the results with information from (independent) drifters.
- ✓ The use of specially-for-oil designed drifters for oil-spill tracking and CODE-type drifters for S&R operations



# Suggestions

- ✓ Maintain and develop monitoring **networks based on HF radar and models** in coastal hot spots.
- ✓ **Include timely and targeted drifter launches**, to efficiently **correct information by radars and models, or to reconstruct the velocity field**
- ✓ Elaborate a **plan for drifter launching** for a satisfactory coverage & information on spreading & transport barriers & oil track.
- ✓ Recommend that international rules and agreements on maritime traffic should consider the inclusion of drifters as mandatory security elements on **cargos, tankers and passenger vessels**



# Short term perspectives

## Developments of TOSCA1 prototype and proof of concept include

- ✓ TOSCA tool automation & operational set up in collaboration with other projects
  - ➡ Contacts are already set-up with (MEDESS-4MS, CALYPSO, CARTHE, MONGOOS, ...)
- ✓ Create a synergy between the existent national protocols/crisis-drift committees and the results of TOSCA
  - ➡ On-going (SASEMAR, METEO FRANCE, CEDRE, PREMAR, RAMOGEPOL, I&GR COAST GUARD)
    - ✓ Optimized use of surface data in models
      - ➡ Feed GIS with available data
    - ✓ Testing results for oil transport (“spill of opportunity”)
  - ➡ CARTHE + collaboration with authorities in charge of oil spill



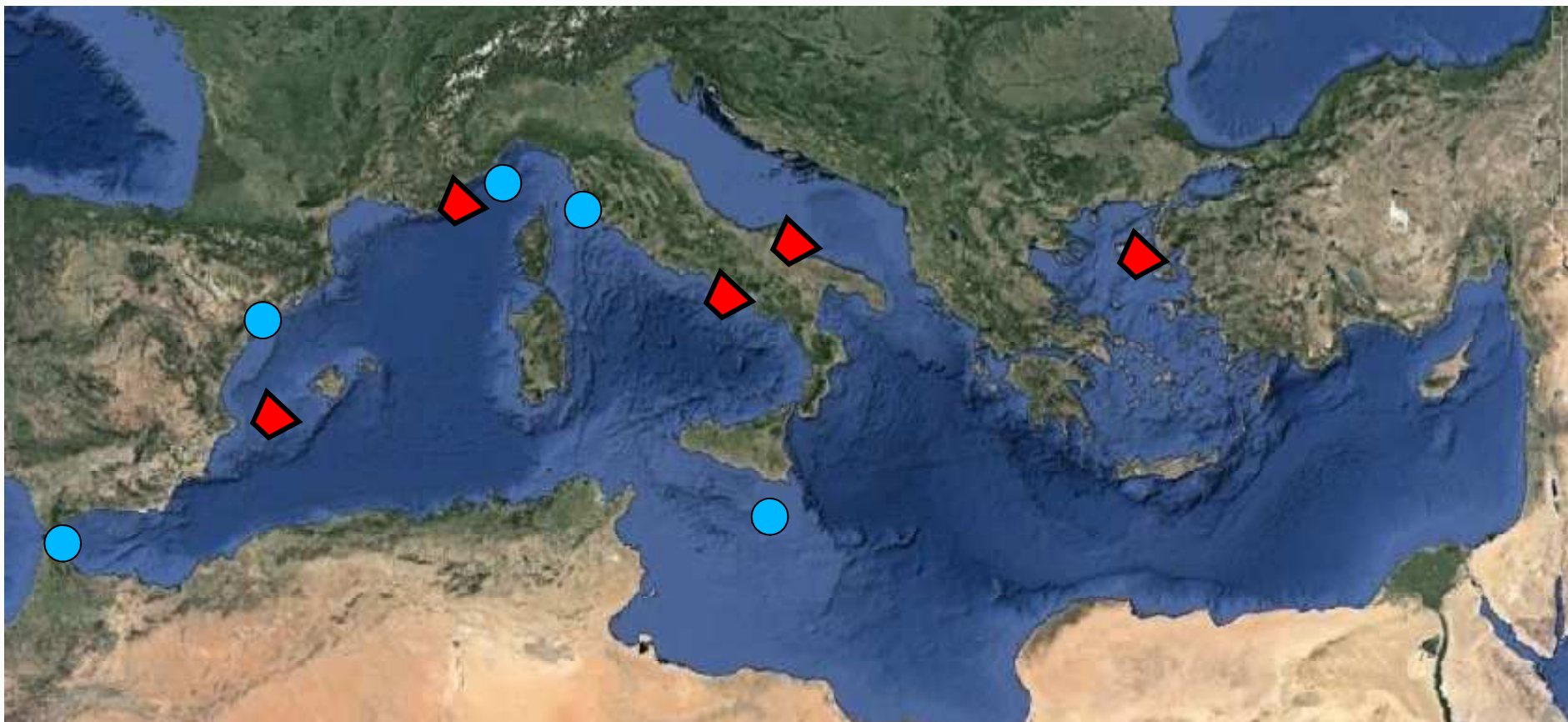
# Long term perspectives

- ✓ Promote regular joint and coordinated validation exercises of forecasting systems
- ✓ Development of industrial (oil-spill) drifters
- ✓ Hindcast and Forecast, blending versus assimilation, parameters to be optimized
- ✓ Scientific issues: transport in surface flow; scales, dynamics, link with interior flow
- ✓ A rapid-deployable RADAR system and a pool of drifters should be available in case of accident (+ trained technical team)
- ✓ The HF RADAR (coupled with drifters and numerical models) may have many other applications in regards to transport (beach monitoring, macro-waste, jellyfish, fishery applications, Marine Protected Areas, ... )



## A long-lasting Mediterranean radar network should be considered

(CALYPSO-Malta, SICOMAR-Elba, TRADE-Gibraltar, MOOSE-Nice, ...)



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# Thanks for attending TOSCA Final Meeting!



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