



Authorities point of view







How TOSCA can be a relevant tool for antipollution control? -> Commissaire Général (Ret) Alain VERDEAUX, PREMAR MED





Summary of TOSCA's outputs/contributions

- ✓ Validation of the HF radars and drifters as new and powerful tools for drift monitoring
- ✓ Development of drifters better suited for precise monitoring, according to the kind of accident
- ✓ Use of LAVA software to improve the numerical models with real data
- ✓ Development of a GIS for a real time data access to surface current and drift trajectories/paths





Towards an evolution of antipollution techniques

1. Precise monitoring of the drift

Knowledge of the evolution of the oil spill drift is a major concern for the authorities. Where is the pollution, when and where will the pollution be touching the shore and what is its consistency?

2. Anticipation of strategic decisions

Knowledge of the drift to anticipate the use of means is a great challenge.

=> The best situation is to have reliable forecasts.





Towards an evolution of antipollution techniques

3. The HF radar and drifters are the only two tools which allow to monitor at night surface currents in real time

A real problem is to know the position of the pollution at all times. The use of the HF radars associated with the drifters would ensure permanent monitoring of drift, day and night.

4. Larger and more systematic use of drifters and floats

The experiments at sea conducted in TOSCA program allowed implementation of drifters in great numbers, with the definition of a strategy for the use of buoys by groups. Studies have also focused on drifters of different forms, with different qualities depending on the weather.





How to promote the evolution from the experimental tool to the operational tool?

✓ TOSCA outputs must be adopted/integrated by the actors in charge of the pollution warfare. The TOSCA's partners may be included as scientific experts in the national drift committees

√TOSCA contributions have to be taken into account in the provisions of means

✓ Contacts with the concerned authorities should be deepened in order to prepare budgets for equipment





How to promote the evolution from the experimental tool to the operational tool?

1. An on-going development process: continuation of scientific research

Scientific research needs to be continued to develop the system.

- ✓ TOSCA II?
- ✓ Join an other larger project (MEDESS-4MS)?
- √ To create a federation of projects around the theme
 of drift and study of currents (CALYPSO, MOMAR,...)?





How to promote the evolution from the experimental tool to the operational tool?

2. Different scenarios for the deployment of TOSCA proposed tools

- ✓ Setting up of HF radars network or at least preparation of the infrastructures (signal stations, harbours, rescue centers) able to support radar in case of emergency,
- ✓ Permanent installation of HF radars in dangerous areas for navigation areas or in areas with high commercial maritime traffic: straits, harbor approaches,
- ✓ Setting up of a lot (pooling system) of quickly transportable HF radars by air and by road. Sharing at the regional level, through the capacity of expertise of the EMSA (European Maritime Safety Agency).
- ✓ Provision and training on oil-spill-type drifters for oil-spill event and CODE-type drifters for search & rescue operations.



Conclusions

- ✓ Integration of the today TOSCA system (demonstrator) in the main antipollution exercises, in the frame of agreements between members States of the UE.
- ✓ Taking into account the capabilities of TOSCA in time of crisis, even in its experimental state. Include Tosca in the contingency plans.
- ✓ Integration of the TOSCA partners in the network of pollution control experts.
- ✓ Join in the discussions conducted by authorities in charge of the antipollution warfare when they are providing the means and budget for the fight.
- ✓ Toward a practical solution to allow the necessary evolution of the system: TOSCA II or contribution to others UE programs.
- ✓ Give a place to TOSCA in tools taken into account by the EMSA in the financing of the preparatory measures to combat accidental pollution.













Thanks for attending TOSCA Final Meeting!







