



## **Modeling oil spills in the Med-Sea as a mean of early response in cases of oil leakages**

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Modeling oil spills in the Med-Sea as a mean of early response in cases of oil leakages

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The risk from oil spill pollution in the Mediterranean is high due to the heavy traffic of merchant vessels for transporting oil and to the increasing coastal and offshore platforms related to the hydrocarbon exploration. This is especially true in the Levantine Basin following the recent widening of the Suez canal and the increase of the offshore deep wells for the exploitation of oil and gas. In order to select the optimal response measurements to assist the response agencies, oil spill models are used to provide predictions of the drift and weathering of the oil slicks. The establishment of the operational ocean forecasting systems at regional level, within the Copernicus Marine Environmental Monitoring Service and in association with the national downscaled ones, provided the background for the implementation of a multi model integrated oil spill prediction system for the entire Mediterranean to support the maritime safety in near real time. This implementation was carried out in the frame of the medess4ms.eu project, which is dedicated to the response agencies of the riparian countries and to key users, such as REMPEC and EMSA. One of the well established oil spill prediction model in MEDESS4MS, is the MEDSLIK, used to provide bulletins and predictions within few hours from the time of receipt of the oil leakage or warnings from SAR images detecting possible oil slicks, in the frame of other projects too, such as EMODNET MedSea check point and RAOP-Med. In addition to the operational use of the oil spill systems, long lasting simulations were also carried out to examine the seasonal and inter-annual likely oil spill trajectories and the likelihood the oil will impact the coastal zones in the Eastern Mediterranean Levantine Basin.