



Co-funded by
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TRAINING SLIDES

MOHID MODEL – CHEMICAL SPILL MODULE

ISTID 

Associação do Instituto Superior Técnico
para a Investigação e Desenvolvimento

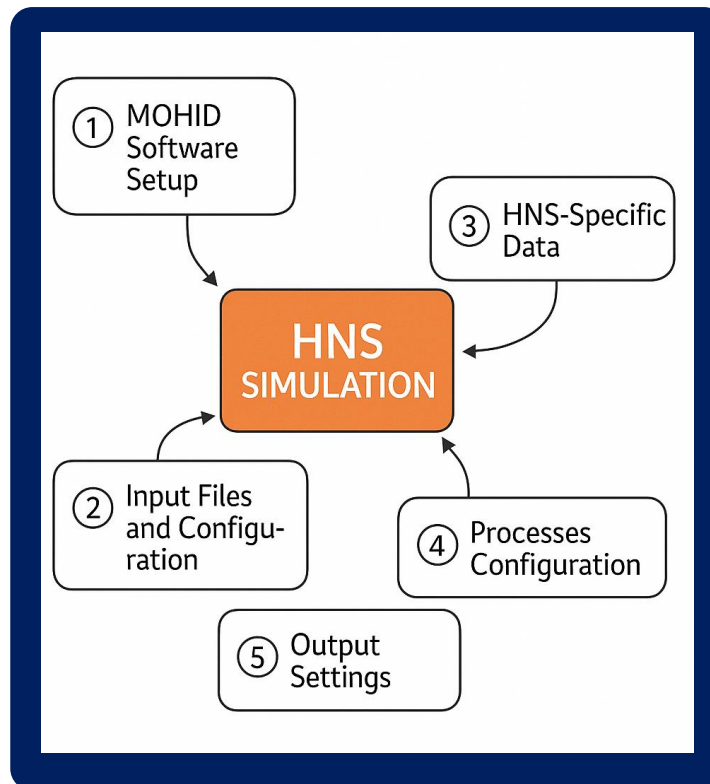
1 OVERVIEW OF THE TOOL

PROBLEM STATEMENT

In the event of an incident and a spill in the environment, information on the fate of the chemical involved is essential to better anticipate the risks incurred by responders and populations, the impacts on the environment as well as the appropriate response techniques. MOHID HNS model can provide valuable insights on how pollutants behaviour.

OBJECTIVE

MOHID HNS is a numerical model able to predict and analyze the behavior of hazardous and noxious substances (HNS) in aquatic and atmospheric environments.



DATA USED

- ✦ Spill details (location, chemical type, volume).
- ✦ Environmental data (currents, winds, bathymetry).

HOW IT WORKS

To perform a simulation, it is necessary to:

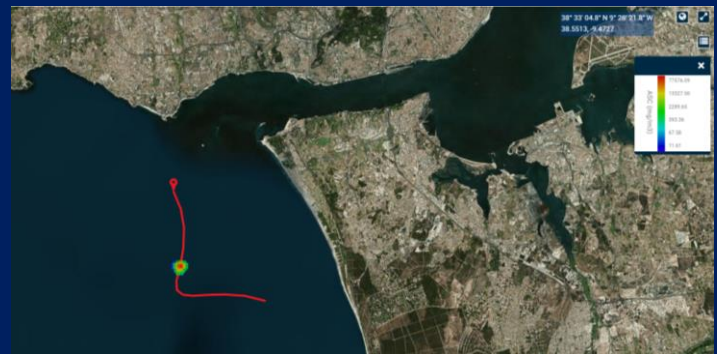
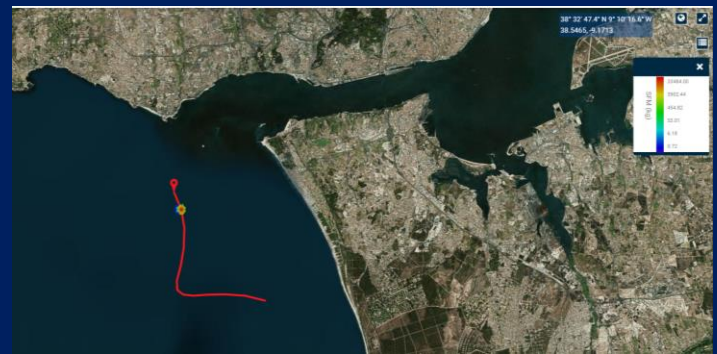
- ✦ gather spill details (location, chemical type, volume) and environmental data.
- ✦ define model domain, resolution and configure the MOHID model files.
- ✦ execute the simulation with hydrodynamic forcing.

2 HOW IT WORKS & KEY RESULTS

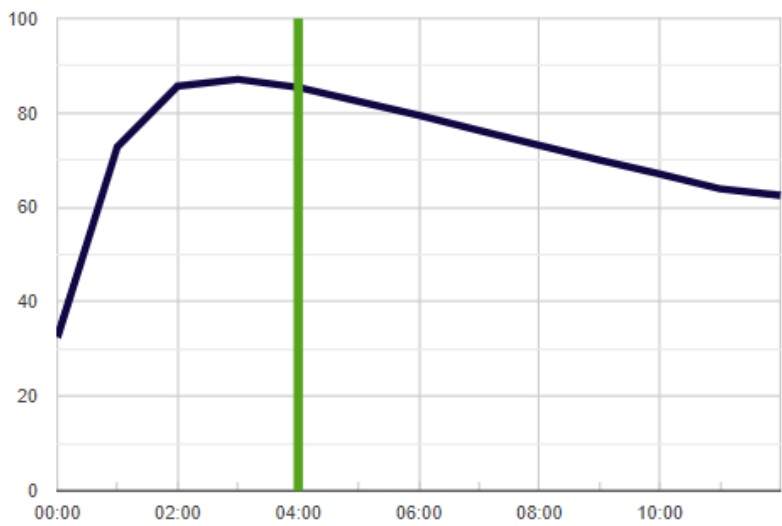
USE CASE

Simulation of an instantaneous spill of an HNS near the Tagus river mouth (Portugal).
Release of 100m3 of N – Butyl Acetate.

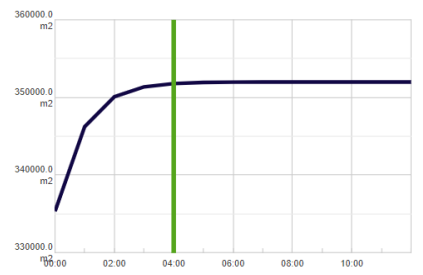
OUTPUT EXAMPLE



Dissolved [%]



Area at Surface [m2]



Volatilized [%]

