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TRAINING SLIDES

EXPLOSION MODEL

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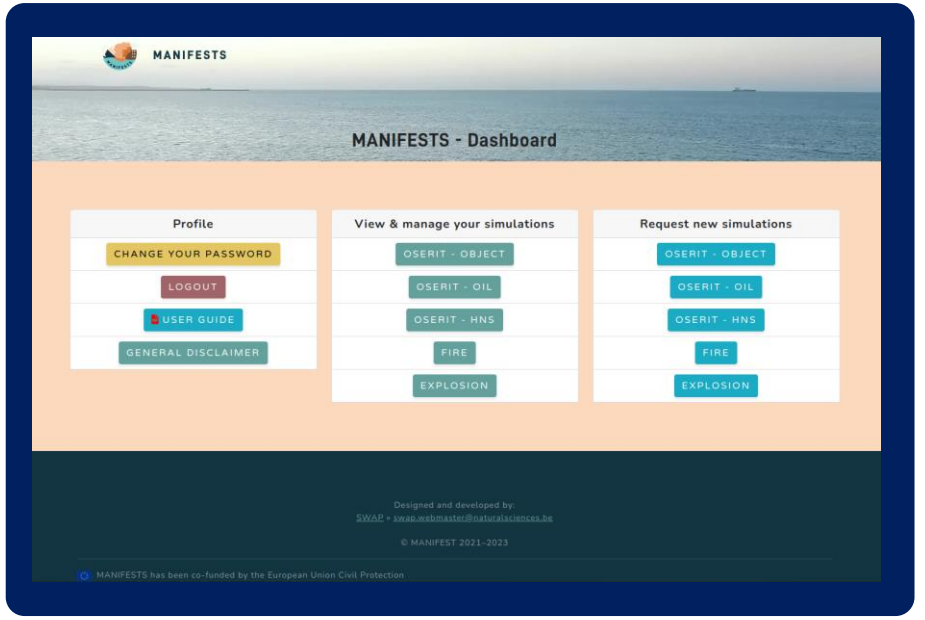
1 OVERVIEW OF THE TOOL

PROBLEM STATEMENT

In the event of an HNS gas cloud explosion, the consequences for humans and structures can be devastating. Developing a tool that quickly estimates the potential impact of such phenomena can aid responsible authorities in reacting swiftly and implementing measures to mitigate the impact, such as maintaining an appropriate safety distance for responders.

OBJECTIVE

The explosion model aims to predict the effects of the explosion of an HNS gas cloud in an open environment.



DATA USED

- Position of the gas cloud.
- Quantity in the gas cloud.
- Properties of the chemical (auto filled from the HNS database).

HOW IT WORKS

The web interface enables users to perform simulations directly online. By filling out a form with event-related information, users can obtain simulation results within seconds.

Both the form and simulation results are available from a web browser.

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2 HOW IT WORKS & KEY RESULTS

USE CASE

To assess the impact of an HNS gas cloud explosion. It can be used to compute safety distances from a vessel in distress, a gas cloud formed by a ruptured pipeline. It therefore helps to avoid exposure to the overpressure effects generated by the explosion, which may cause damage to people and infrastructure.

OUTPUT EXAMPLE