

Project partners

The MANIFESTS partnership involves 9 institutes and administrations from 6 countries with strong and complementary expertise in the field of marine pollution.

CEDRE-FR	Chemical analysis Training and exercises
RBINS-BE	Pollution modelling Decision support tools
CETMAR-ES	Training and exercises Knowledge transfer
ARMINES-FR	Risk assessment and incident management
INTECMAR-ES	Pollution modelling Decision support tools Training and exercises
MET.NO-NO	Pollution modelling
IST-PT	Pollution modelling
PHE-UK	Risk assessment and incident management
DG-ENV-BE	Marine Environment Knowledge transfer



Project Advisory Board

- FR: French navy, CEPPOL and French customs;
- BE: DG-ENV;
- NO: Norwegian Coastal Administration;
- ES: General Directorate of the Merchant Marine;
- PT: Directorate-General Maritime Authority - Marine Pollution Response Directorate (DGAM);
- UK: Maritime Coastguard Agency.

TAKE A LOOK AT THE MANIFESTS WEBSITE!



www.manifests-project.eu



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MANIFESTS

MANaging risks and Impacts From Evaporating
and gaseous Substances To population Safety



Co-funded by the European Union Civil Protection



THE PROJECT

Accidental release of volatile Hazard Noxious Substances (HNS) at sea can lead to the formation of toxic, flammable or even explosive gas clouds potentially hazardous for nearby populations and the environment.

The objective of MANIFESTS is to address the lack in response guidance for dealing with such airborne releases and with decisions over sheltering or evacuation of the crew, responders and the coastal population.

The project seeks to improve response capacities of marine pollution responders through the development of innovative decision support tools and operational guidelines and by facilitating access to relevant knowledge and databases, particularly on volatile HNS.

MANIFESTS is a two-year project (2021-2022) co-financed by the European Union Civil Protection.

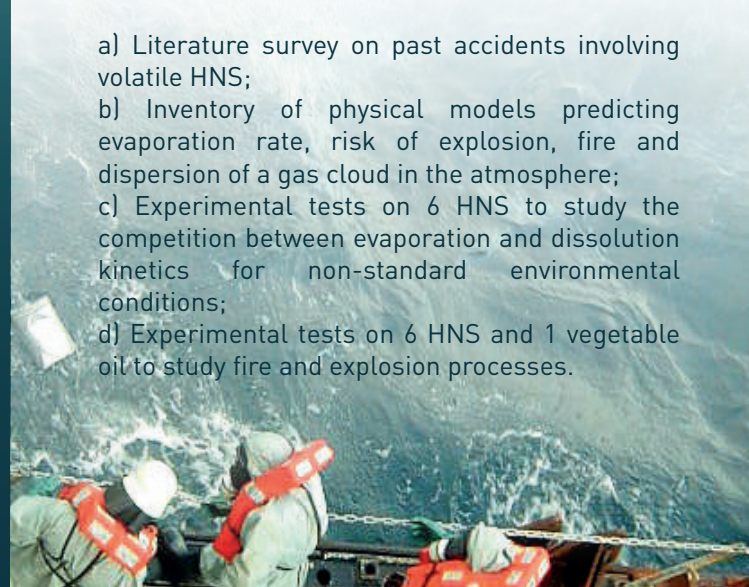
Project budget: 1 028 500€
EU contribution (85%): 874 200€



MAIN PROJECT ACTIVITIES

1. STUDIES ON VOLATILE HNS

- a) Literature survey on past accidents involving volatile HNS;
- b) Inventory of physical models predicting evaporation rate, risk of explosion, fire and dispersion of a gas cloud in the atmosphere;
- c) Experimental tests on 6 HNS to study the competition between evaporation and dissolution kinetics for non-standard environmental conditions;
- d) Experimental tests on 6 HNS and 1 vegetable oil to study fire and explosion processes.



2. DESKTOP AND FIELD TRIALS

- a) Preparation of a guidance document dealing with emergency response to toxic gas clouds;
- b) Full-scale field trial with the release of 6 HNS in open sea under the leadership of CEPOL (French Navy) for the calibration of sensors used for maritime survey;
- c) Validation of response protocols & modelling predictions;
- d) Table top and field exercises. Exercise package covering different scenarios.



3. MODELLING TOOLS IMPROVEMENT FOR VOLATILE HNS

- a) Development of an 'Explosive and fire risk' module;
- b) Improvement of existing models for the prediction of HNS concentration in the atmosphere;
- c) Inter-comparison exercise on 4 existing models to understand their strengths and weaknesses;
- d) Validation of the models studied against field observations.



4. DECISION SUPPORT TOOLS

- a) Up-to-date HNS database with key physico-chemical parameters for modelling evaporation, fire and explosion;
- b) 'Common Operational Picture' tool allowing efficient information exchanges between maritime authorities and response teams at sea, in the air and on the coast;
- c) Serious game for the training of Emergency responders and planners using an immersive scenario;
- d) Upgrading of HNS Knowledge Tool.