

# Act 4.3 OIL SPILLS AND OTHER MARINE HAZARDS PILOTS DEPLOYMENT

PP11 - ARPA FVG APPROACH TO THE SPECIALIZED EXERCISES

PP11 | ARPA FVG | Enrico Ballaben - Dario Giaiotti

TF2/WP4 Coordination Meeting | Zoom platform | 30th March 2021

## Act 4.3 OIL SPILLS AND OTHER MARINE HAZARDS PILOTS DEPLOYMENT (from Application Form)

Activity number	3
Title	OIL SPILLS AND OTHER MARINE HAZARDS PILOTS DEPLOYMENT
Description	Activities refer to the development of methodology for risk assessment for oil spills in the Adriatic Sea providing data collection on maritime traffic, possible sources of pollution, exposure, environmental sensitivity, impacts on human life, environment, and economy etc. Simulation of oil spill scenarios using oil spill trajectory models for tracking the movement of the oil slick, and oil spill dispersion model for predicting possible impacts to the environment are foreseen. Capitalization of existing simulation models for oil spills and its upgrade with new functionalities will be available to all partners through web interface and interoperable services and development of oil spill operational prototype and hazard mapping capacities relevant for all partners. Equipment to act in case of oil spills and other marine hazards will be improved, as well as specialized exercises and simulations for coast guards and civil protection units, with at least one exercise having a CBC dimension.
Start date	01/02/2021
End date	30/06/2022
Activity deliverables	D.4.3.1 - n° 1 Pilot deployment of "Oil spills and other marine hazards" (4 separate activities) that will consist of: - n° 1 Methodology/guidelines for risk assessment for oil spills in the Adriatic Sea developed (PP4) - n° 1 Oil spill operational prototype and hazard mapping capacities developed (PP9) - n° 2 Enhanced simulation models for oils spills and other marine hazards (PP9, PP11) - n° 5 Specialized exercises implemented (with usage of personal protective equipment and specialized equipment: floating booms, boats, drones,...) (1 exercise per PP) All FP2 PPs will contribute to the achievement of pilot deployment deliverables.
Activity budget	€ 2.011.652,70

**Specialized exercises and simulations, with at least one having a CBC dimension**

### Deliverables refer to:

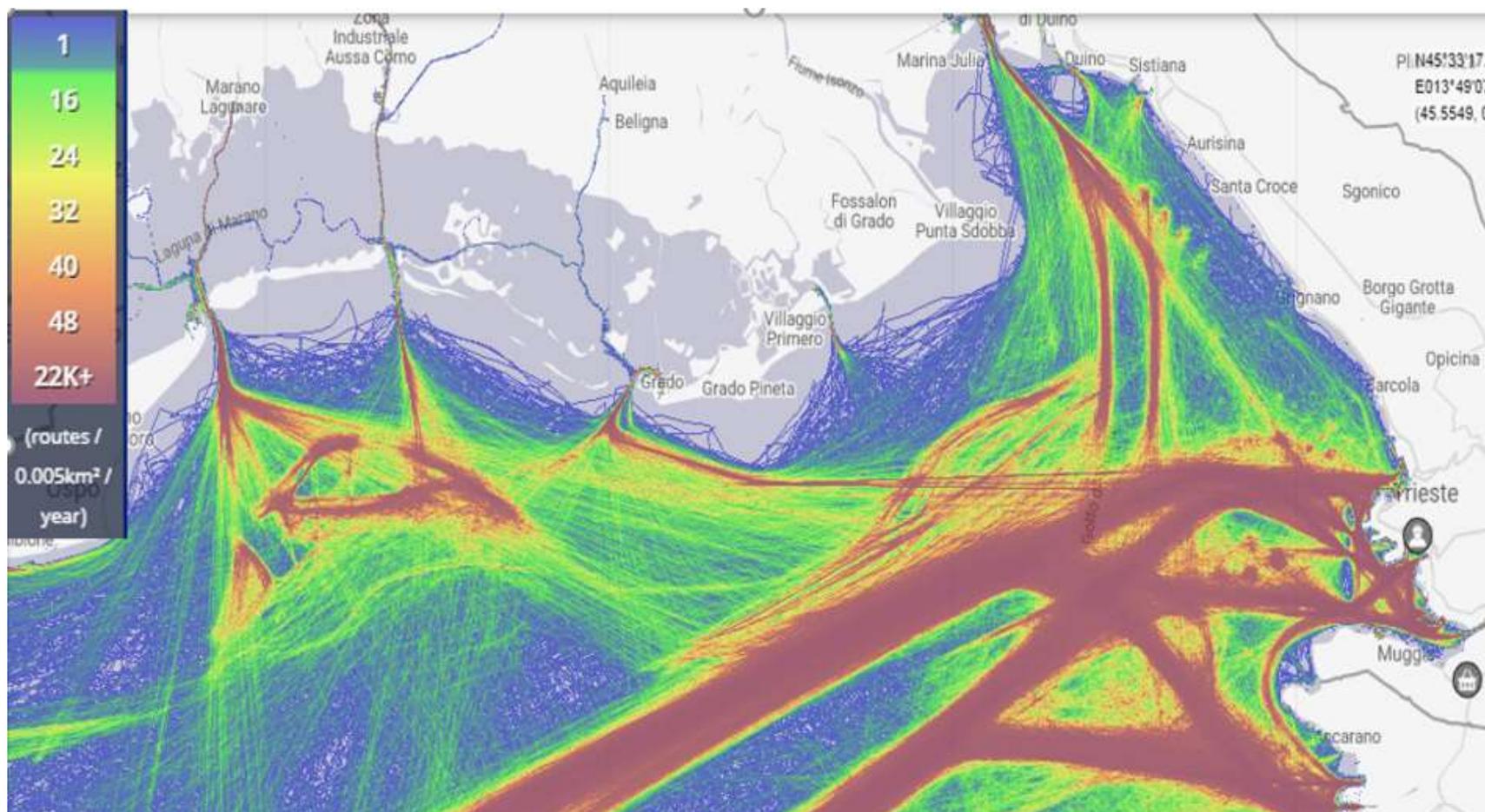
N° 1 Methodology/guidelines for risk assessment for oil spills in the Adriatic Sea developed (PP4)

N° 1 Oil spill operational prototype and hazard mapping capacities developed (PP9)

N° 2 Enhanced simulation models for oils spills and other marine hazards (PP9, **PP11**)

**N° 5 Specialized exercises implemented (with usage of personal protective equipment and specialized equipment floating booms, boats, drones,..) (1 exercise per PP)**

## Act 4.3 GEOGRAPHICAL AREA *(Brief description of involved area and its substance in terms of oil spills and other marine hazard risks ) – hazard sources*



## Act 4.3 GEOGRAPHICAL AREA (Brief description of involved area and its substance in terms of oil spills and other marine hazard risks) – Exposed and vulnerable targets



### Pilot area features

- Env. type: coastal areas, lagoon and open sea
- Relevant ecosystems: [Natura 2000 sites](#)
- Important anthropic activities: **harbors**, **tourism**, **historical sites**

## Act 4.3 DESCRIPTION OF EXERCISE *(short description of pilot activity, numbers of participants and equipment used )*

A sea exercise will be carried out in the Gulf of Trieste, in which the **collision between two ships** will be simulated. (duration of exercise : max 8<sup>h</sup>)

### Description:

Following a failure in the steering system, a Ro / Ro cargo ship will be expected to collide during the approach maneuver to the port of Trieste, bow and with a low angle of attack, against the upper part of the side of an oil tanker. The impact will cause a gash, causing a certain amount of transported product to be spilled into the sea.



## Act 4.3 DESCRIPTION OF EXERCISE *(short description of pilot activity, numbers of participants and equipment used )*

### Details of the exercise

- **Amount (indicative) of spilled hydrocarbon:** equal to or greater than 200m<sup>3</sup>
- **Hydrocarbon density:** less than 1010 kg/m<sup>3</sup>
  - the hydrocarbon does not tend to settle in the water column
  - the hydrocarbon does not undergo weathering processes in the short and long term
- **Oil-spill distance from coast:** less than 3 miles
- **General characteristics of the meteorological and marine situation** (direction and intensity of the wind and wave motion, phase of the tide): the real ones, found at the time of the exercise



## Act 4.3 DESCRIPTION OF EXERCISE *(short description of pilot activity, numbers of participants and equipment used )*

### Project Team PP11 ARPA FVG:

N. 9 operator

### Equipment:

N.1 motorboat - cabin cruiser

N.1 Multiparameter probe configured for PAH measurements (new)

N.1 Multiparametric probe for acquiring vertical profiles

N.1 Remotely Operated Vehicle

N.4 Coastal drifters (new)

N.1 drone with multispectral sensor (new)

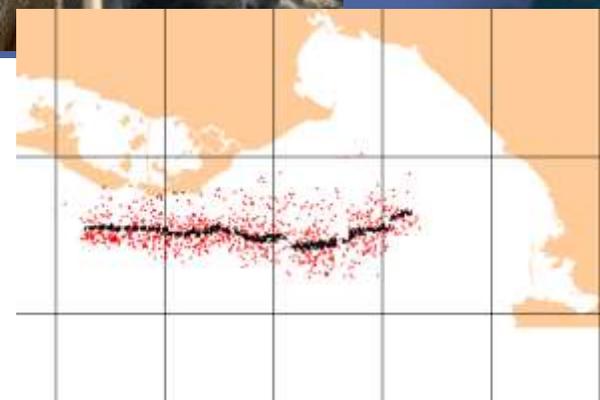
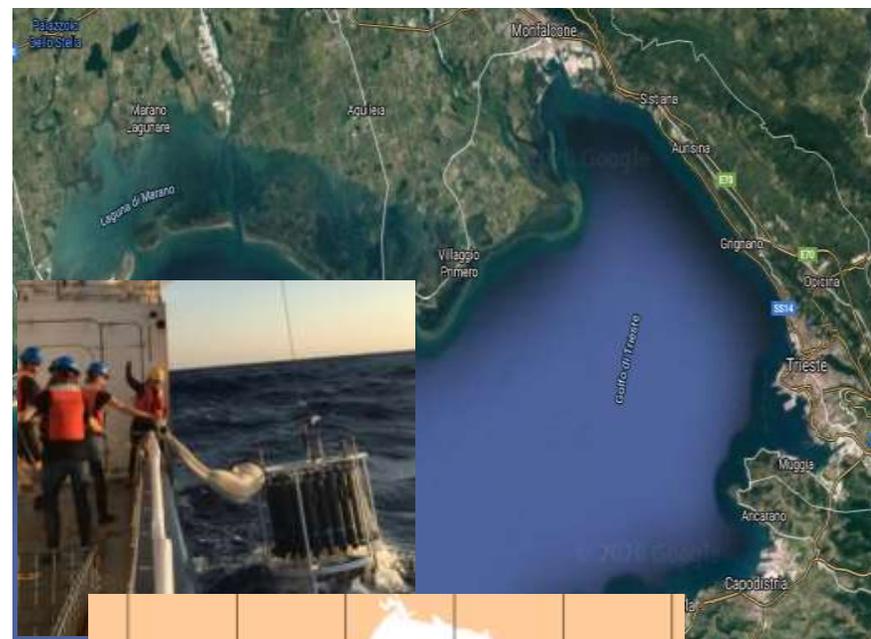
N.1 drone with thermal imaging camera (new)

N.1 SCHOMAKER water sampler (new)

N.2 universal samplers with telescopic rod (new)

Kit for water and/or hydrocarbon matrix sampling

Oil spill dispersion forecast and impact simulations



## Act 4.3 DESCRIPTION OF EXERCISE *(short description of pilot activity, numbers of participants and equipment used )*

### Pilot Team composition:

- N.1 motorboat pilot
- N.1 Pilot Team coordinator
- N.2 basic operator for sea water and/or hydrocarbon sampling
- N.1 specialist operator for measurements with multiparameter probe, detection with drifter/ROV
- N.1 specialist operator for modeling
- N.1 specialist operator for drone operations (pilot)
- N.1 assistant for drone pilot
- N.1 chemical analyst operator for the characterization of hydrocarbon



# CONTACT INFORMATION

Partner Name **PP11: ENVIRONMENTAL PROTECTION AGENCY OF FRIULI VENEZIA GIULIA (ARPA FVG )**

**Enrico Ballaben - Dario Giaiotti**

 Via Cairoli, 14 I-33057 Palmanova (UD) - ITALY

 enrico.ballaben@arpa.fvg.it

 0432 191 8286

 [www.italy-croatia.eu/firespill](http://www.italy-croatia.eu/firespill)