

A cloud Platform for port Authorities

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impressive

**Marine ports real time sustainability assessment
and pollution preventing program**

[Visit Impressive Project site](#)



OilSpill



WasteWater



Target customers of IMPRESSIVE



Port Authorities, Port Operators, Shipping Companies, Local / Regional Public Administrations of the vicinity of the ports, Coast guards, Environmental protection Agencies, Oil/gas industries, Off-shore industries



IMPRESSIVE is a project (#821922) co-funded by the European Commission under the H2020 Programme



Benefit for the users



- Integrated solution for oil spill monitoring and control in harbors and their surrounding waters
- Validated methodology and services for the provision of EO products operationally and in real-time from DIAS, ESA SCI-HUB web platform and from two Copernicus mirror sites, one hosted by NOA for the Mediterranean basin and one hosted by ULPGC for NE Atlantic
- alerts for oil spills and waste waters in and around ports that would simulate the experts' decision
- Access to a cloud platform without need to install sw or plugin, or maintenance costs
- Easy access to the information through periodic subscription
- Access to different and complementary technologies (satellite, drones, Autonomous Surface Vehicles (ASVs))



Select Areas ▾

Italy ▶

Greece ▶

Spain ▶

La Luz

🏠 the Oil Spill service

Welcome, **daniela**



La Luz

Taranto

Rafina

1000 km

i

Select Areas ▾



Events



Choose start date

2020-11-08

Choose end date

2020-11-21



Filter



Oil Spill - Rafina

Event_Id : 1118



Date: 2020-11-15 04:32 UTC

Probability: 50%



Event out of the modelling area



Oil Spill - Rafina

Event_Id : 1119



Date: 2020-11-15 16:22 UTC

Probability: 50%



View Forecast



Oil Spill - Rafina

Event_Id : 1120



Date: 2020-11-15 16:22 UTC

Probability: 30%

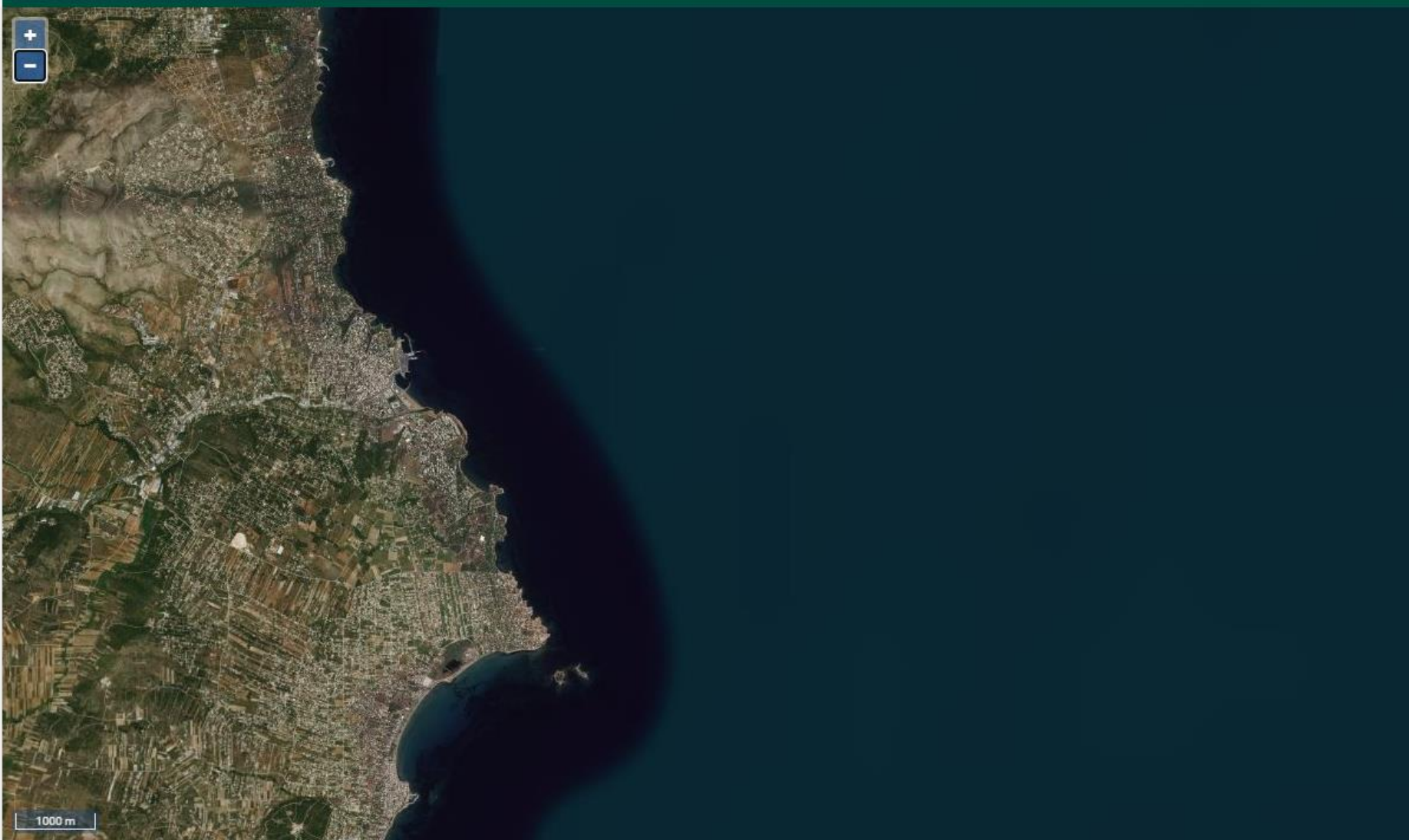


View Forecast



the Oil Spill service

AOI: Rafina (Greece)



Current selected map Bing Maps ▾

Today: 16-11-2020

View Events ▶



01-03-2020

Select Areas

Events

Choose start date

2020-11-08

Choose end date

2020-11-21

Filter

Oil Spill - Rafina

Event_Id : 1118

Date: 2020-11-15 04:32 UTC

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! Event out of the modelling area

Oil Spill - Rafina

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View Forecast

Oil Spill - Rafina

Event_Id : 1120

Date: 2020-11-15 16:22 UTC


Probability: 30%

View Forecast

the Oil Spill service

AOI: Rafina (Greece)

Welcome, daniela



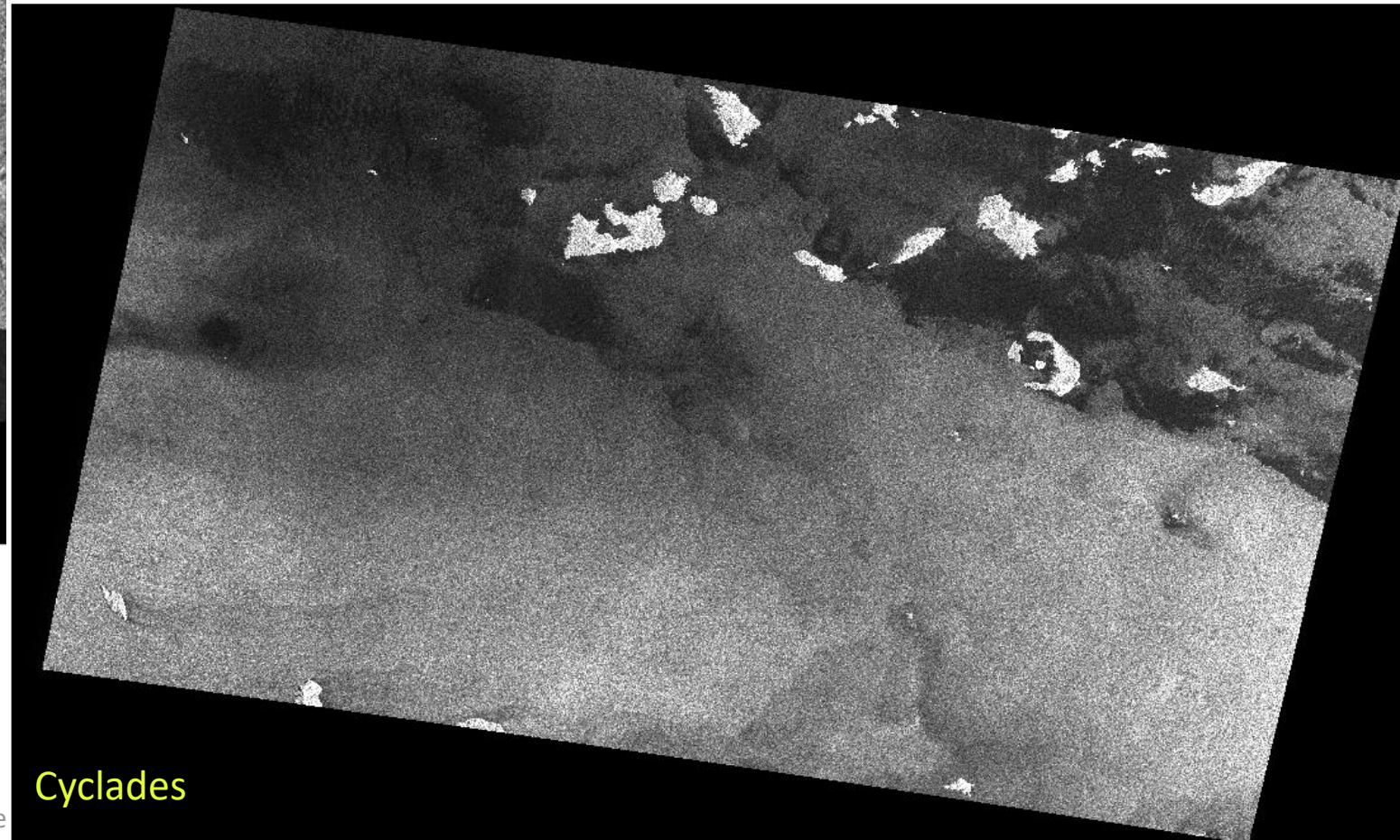
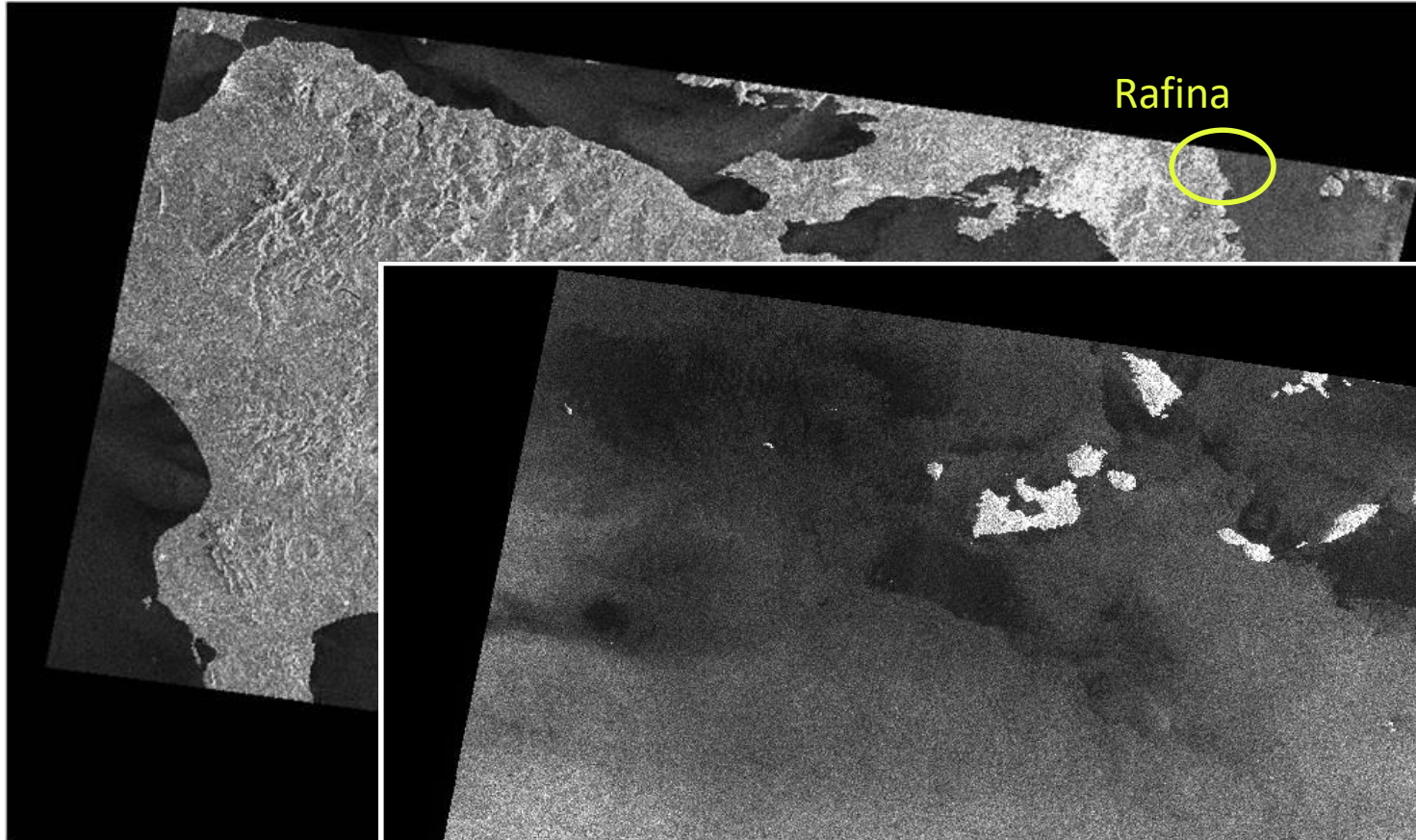
Current selected map Bing Maps

Today: 16-11-2020

View Events

01-03-2020

Examples of Sentinel 1



Cyclades



High Resolution hydrodynamic WATER POLLUTION MODELS



MEDSLICK-II model



Costa Concordia accident
2012



Drifter deployment during
exercises



Lebanon crisis
2006



Agia Zoni II accident
2017

Stakeholders:

- REMPEC
- DG MARE
- Italian Coast Guard
- WMO

CMCC and ICMAT



Select Areas ▾



Events



Oil Spill - Taranto

Event_Id : 1016



Date: 2020-11-06 04:56 UTC

Probability: 50%



View Forecast

UAV Request



Oil Spill - Taranto

Event_Id : 1017



Date: 2020-11-06 04:56 UTC

Probability: 39%



View Forecast

UAV Request



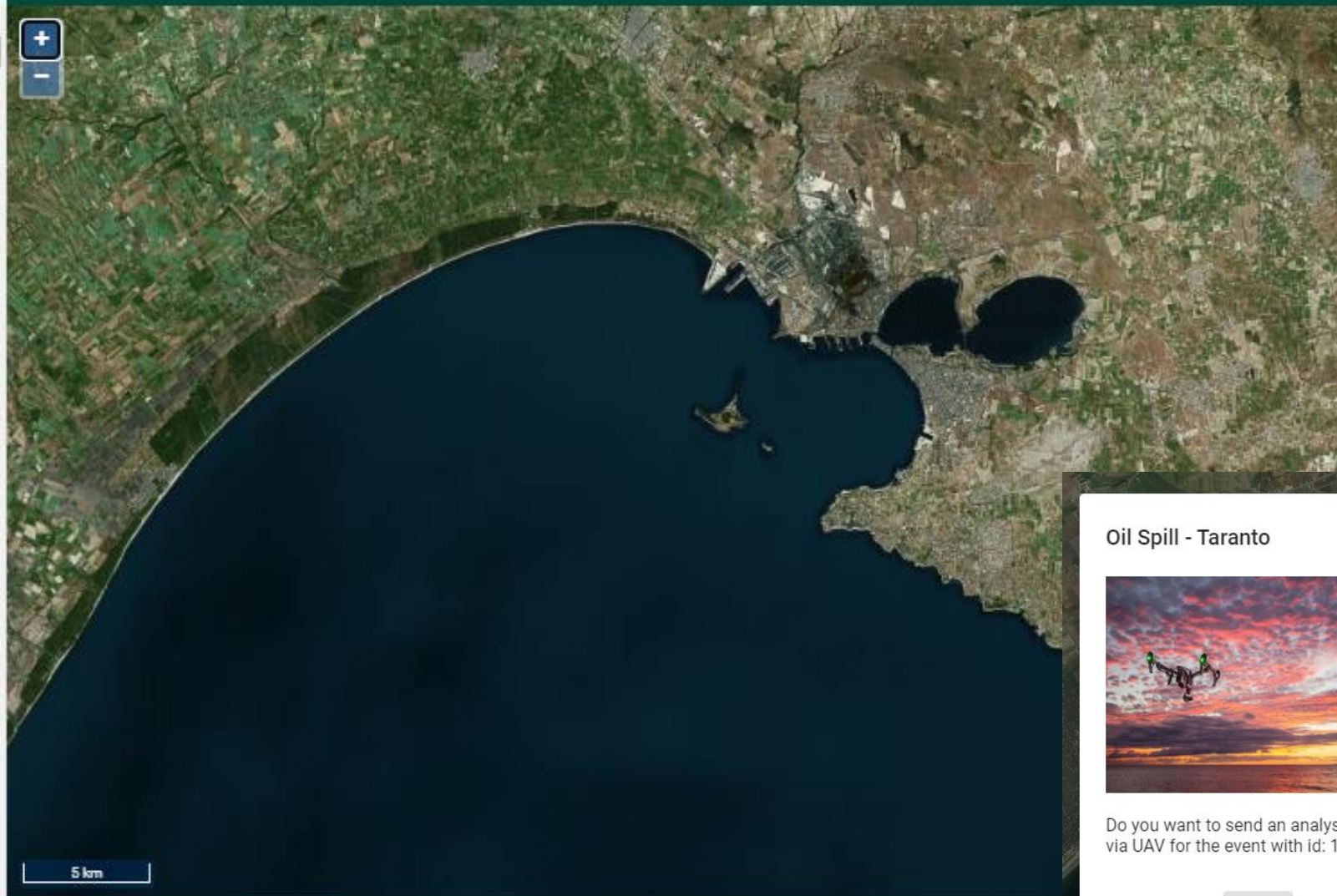
Oil Spill - Taranto

Event_Id : 1018



the Oil Spill service

AOI: Taranto (Italy)



Current selected map Bing Maps

Today: 10-11-2020

Oil Spill - Taranto



Do you want to send an analysis request via UAV for the event with id: 1096?

No Thanks

Ok

Select Areas ▾



Date: 2020-11-09 07:02 UTC

Probability: 27%

☐ View Forecast

UAV Request

ASV Request



Oil Spill - La Luz

Event_Id : 1076



Date: 2020-11-09 07:02 UTC

Probability: 45%

☐ View Forecast

UAV Request

ASV Request



Oil Spill - La Luz

Event_Id : 1029



Date: 2020-11-07 19:04 UTC

Probability: 30%

the Oil Spill service

AOI: La Luz (Spain)

Welcome, daniela



Oil Spill - La Luz



Do you want to send an analysis request via ASV for the event with id: 1125?

No Thanks

Ok

2 km

Current selected map Bing Maps

Today: 10-11-2020

View Events ▶





Event Date: 15-11-2020



Event Date: 13-11-2020



Event Date: 10-11-2020



Event Date: 31-10-2020



Event Date: 26-10-2020



Event Date: 01-10-2020



- Wastewater
- Turbidity
- Chlorophyll
- Suspended particulate matter

5 km

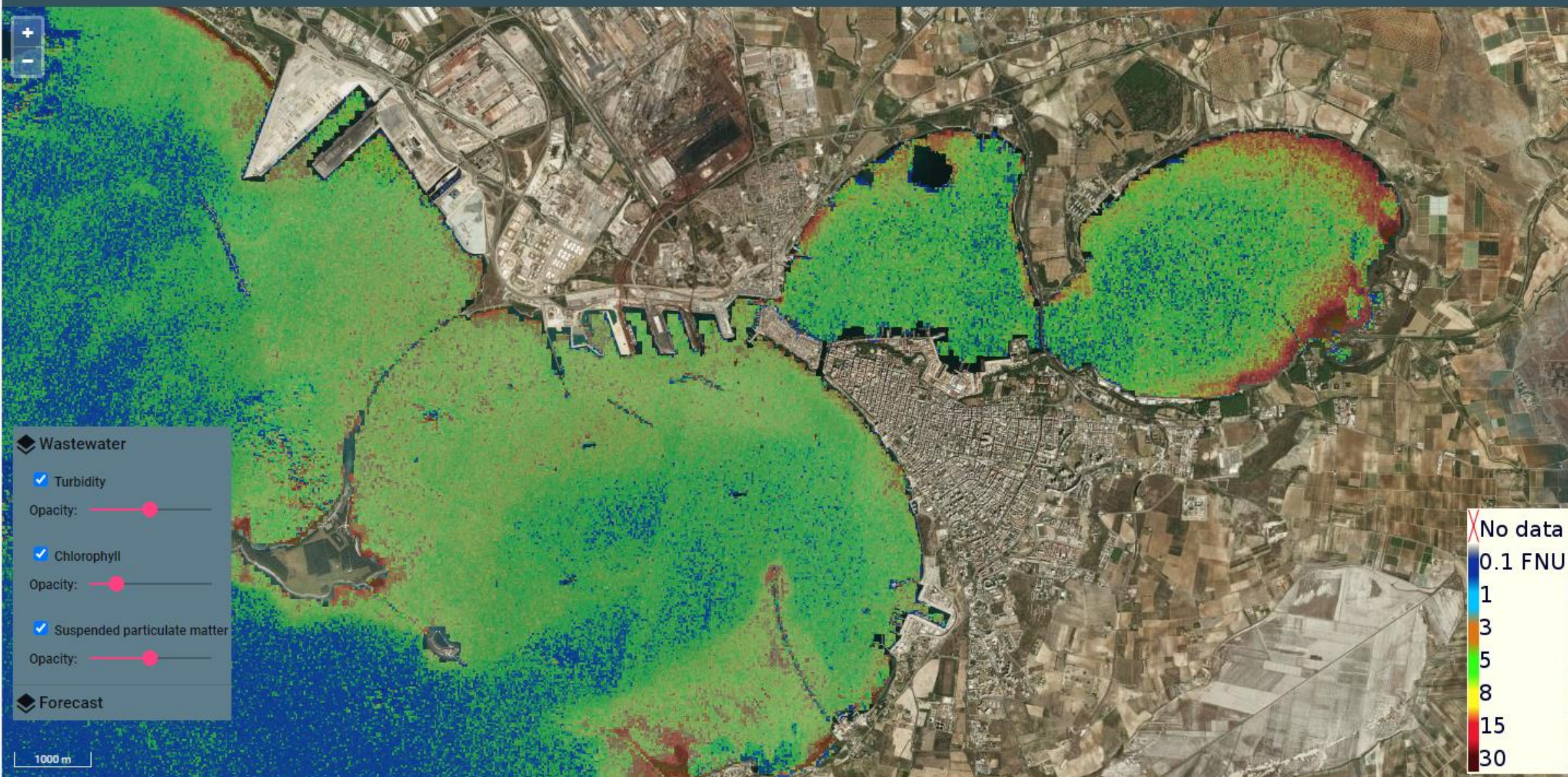
Current selected map Bing Maps

Today: 16-11-2020

View Events ▶



01-03-2020 📅



Select Areas ▾

⋮

Events

Requests

New Request

Draw an area on the map to submit an inspection request with a drone

Activate Draw

Clear All

Send request

UAV

UAV layers

Request ID: 21	Date: 2020-11-16	▾
Request ID: 20	Date: 2020-11-16	▾
Request ID: 19	Date: 2020-11-13	▾
Request ID: 18	Date: 2020-11-13	▾
Request ID: 17	Date: 2020-11-12	▾
Request ID: 14	Date: 2020-11-10	▾
Request ID: 9	Date: 2020-11-09	▾
Request ID: 8	Date: 2020-11-06	▾

the Wastewater service

AOI: Taranto (Italy)

+

-

70.11 km²

Wastewater

Turbidity

Chlorophyll

Suspended particulate matter

Forecast

5 km

Current selected map

Bing Maps

Today: 16-11-2020

View Forecast

▶

■

○

15-11-2020

Select Areas ▾



Events

Requests

Event Date: 31-10-2020



Event Date: 26-10-2020



Event Date: 01-10-2020



the Wastewater service

AOI: Taranto (Italy)

Welcome, **daniela**



Wastewater

- ☒ Turbidity
Opacity:
- ☒ Chlorophyll
Opacity:
- ☒ Suspended particulate matter
Opacity:

Forecast

2 km

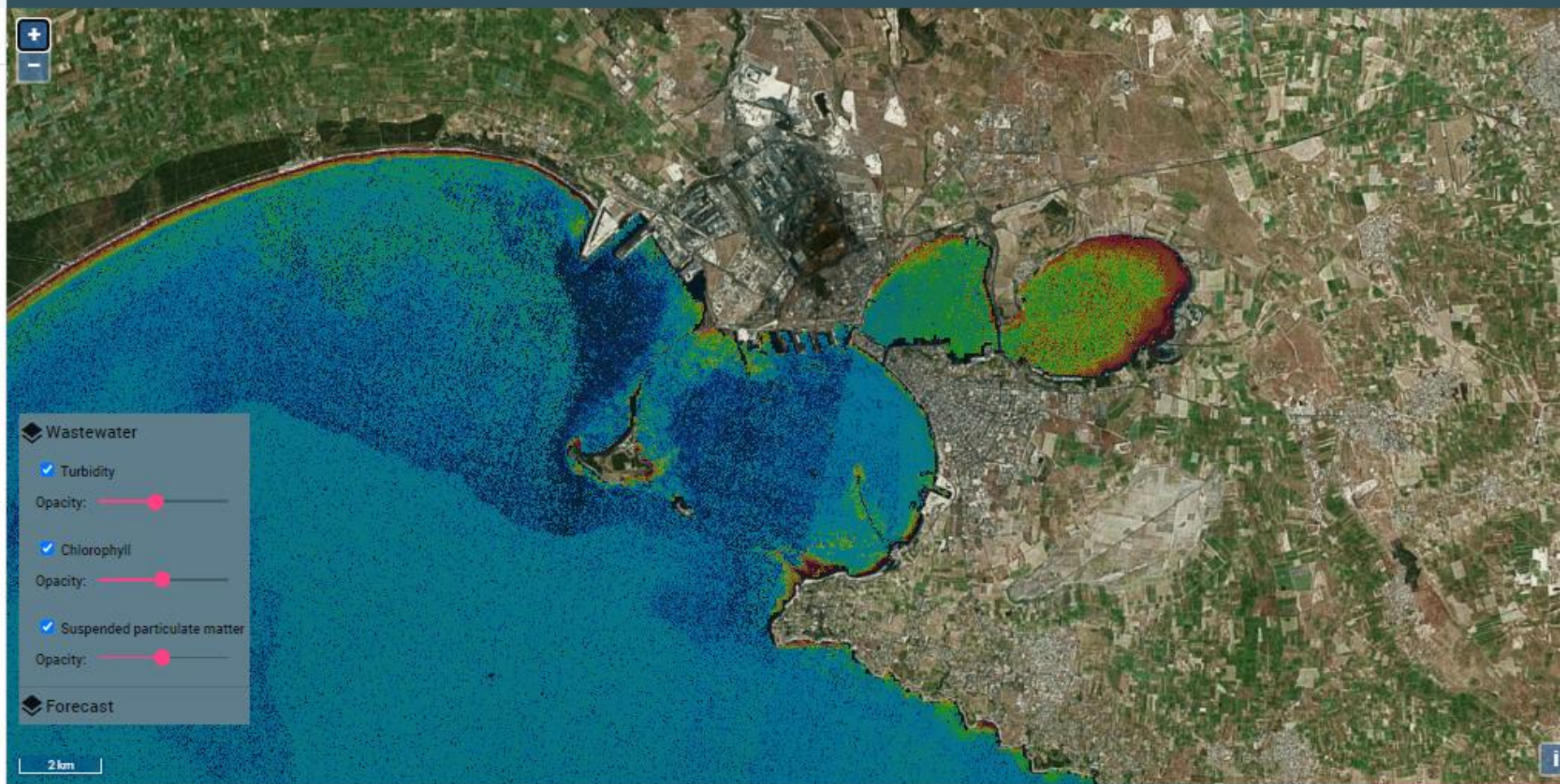
Current selected map Bing Maps

Today: 10-11-2020

Select Legend **None**

View Forecast ▶ ☐

31-10-2020



First sea trials for H2020 IMPRESSIVE Project

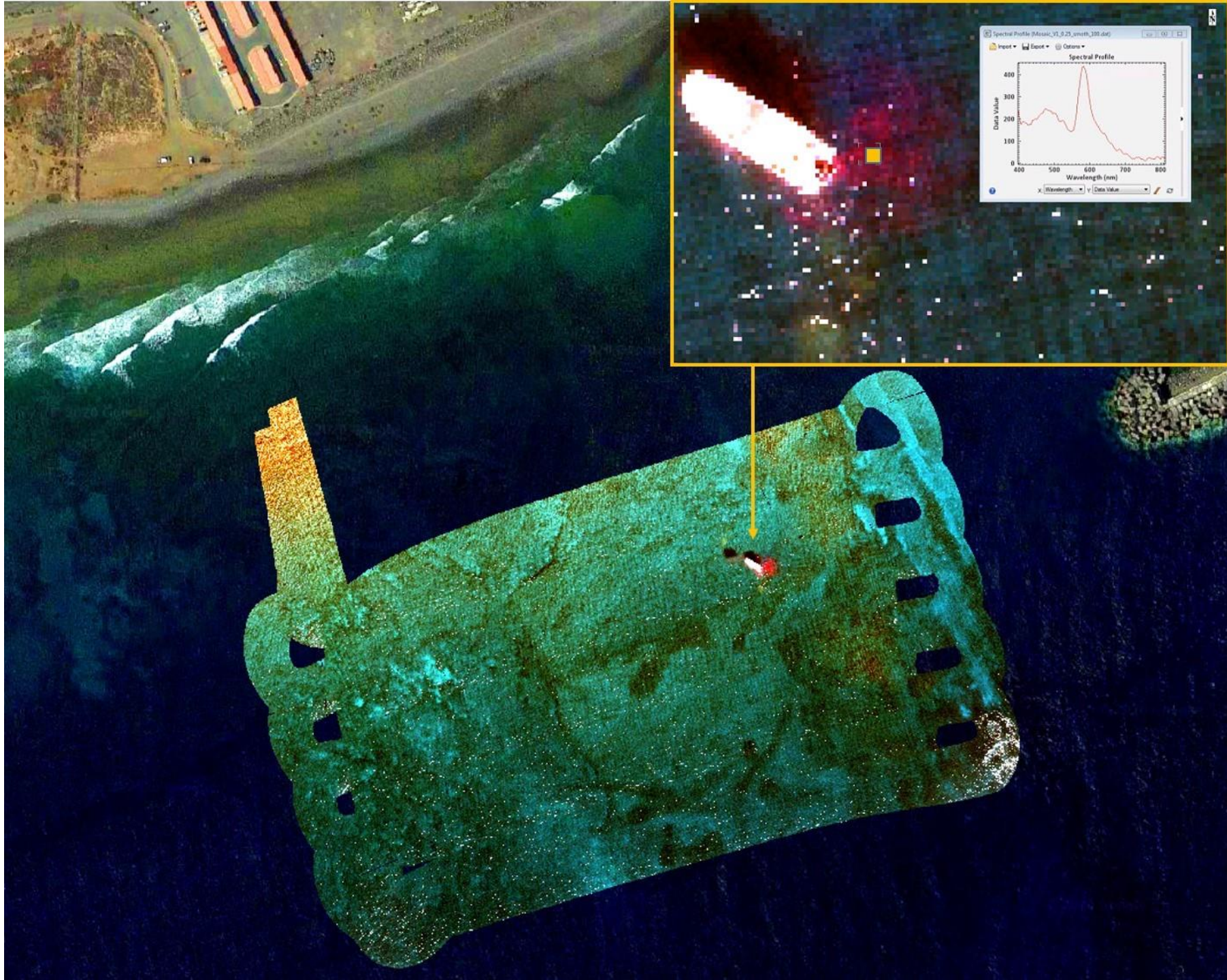


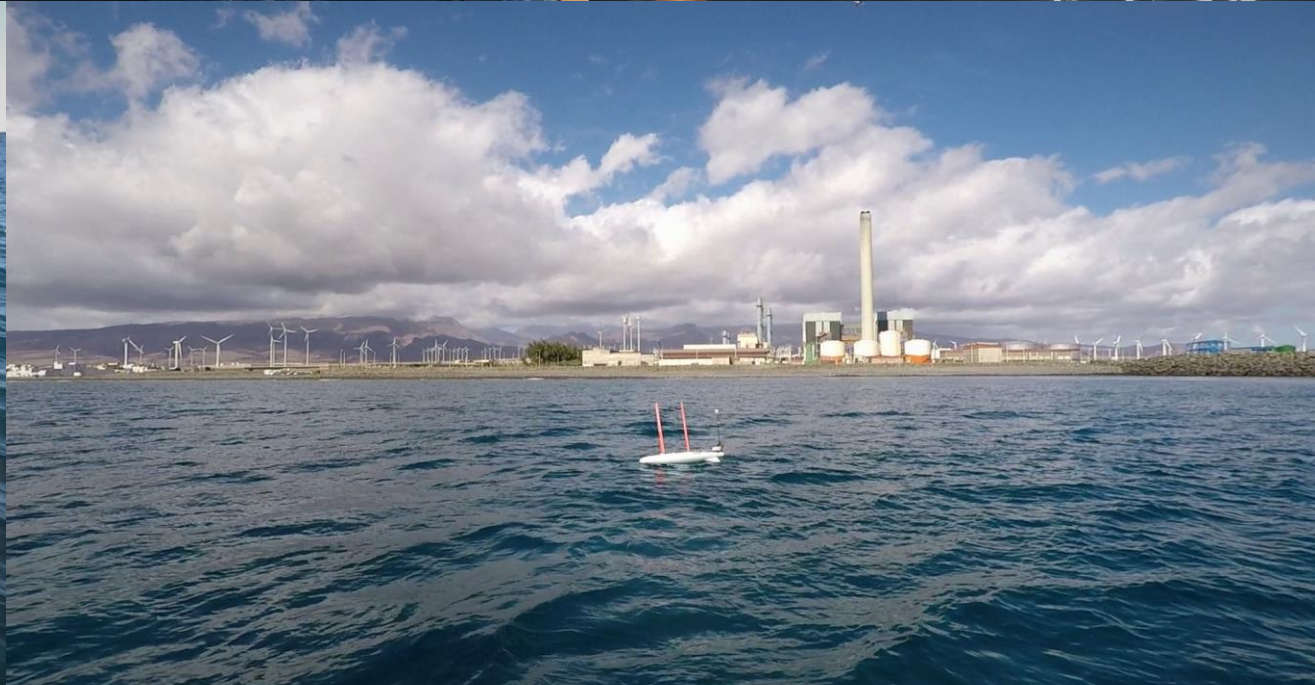
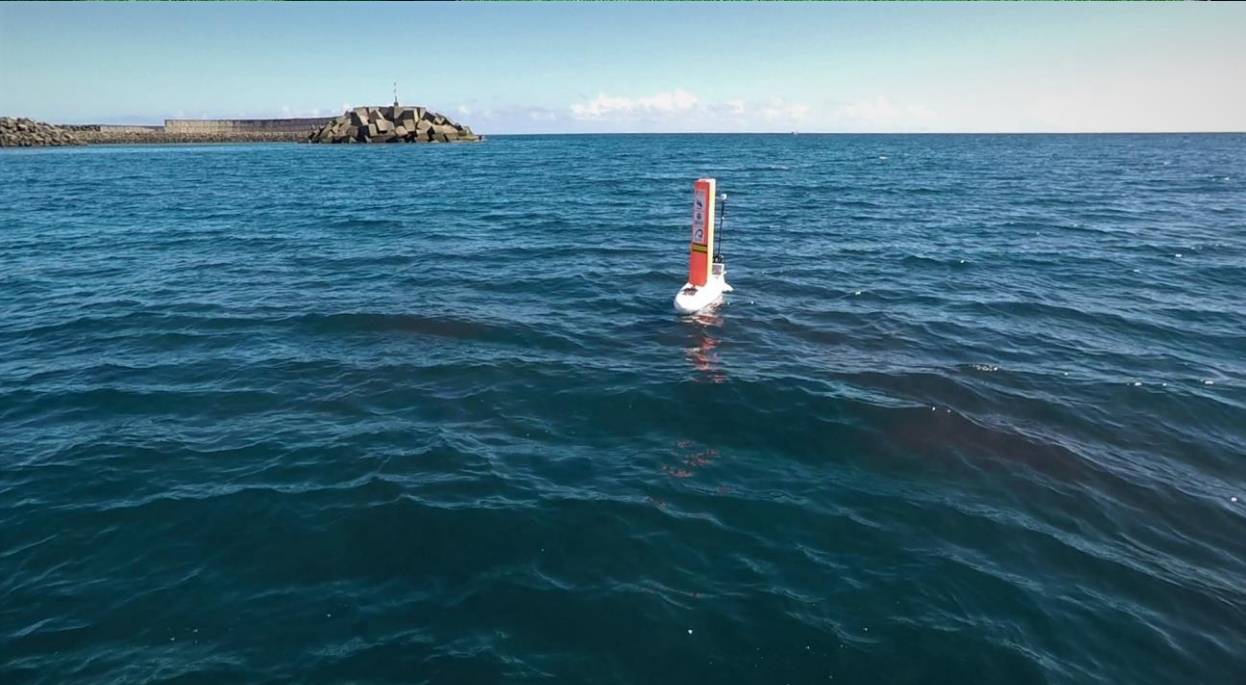
The first sea trials of the H2020 IMPRESSIVE project (*“Integrated Marine Pollution Risk assessment and Emergency management Support Service In ports and coastal enVironmEnts”*) were successfully accomplished in **Gran Canaria on last Saturday 7th November 2020**. The operation was a coordinated activity between the **ULPGC** and the Canarian company **elittoral**, both of them partners of the project’s international consortium.

The aim of the sea trials was to test the functioning of two of the monitoring systems, namely a drone and a marine autonomous surface vehicle (ASV), which are being developed by the two partners in the context of the project.

In this sense, a spill simulation was produced with rhodamine (a water tracer dye) in the surroundings of Juan Grande power plant. Next, a total of three drone flights and several ASV passes were made across the testing area. Specific sensors have been integrated to match IMPRESSIVE’s objectives, such as a **high resolution hyperspectral camera** on board the drone and several marine **sensors (fluorimeter and turbidity sensor)** on board the ASV.









Thank you

For any question contact me
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