

The logo for imdis 2021 features a dark blue square with a white graphic of concentric arcs and dots on the right side, resembling a signal or data visualization. The text 'imdis' is in a lowercase sans-serif font, and '2021' is in a larger, bold lowercase sans-serif font below it.

imdis
2021

The concept of featured data services in the PORTO interface

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Physical Oceanography Research Group, University of Malta

PORTO Online is a deliverable of the
CALYPSO South Project
www.calypsosouth.eu

The logo for Interreg Italia-Malta Calypso south includes the Interreg logo (a square with four colored quadrants), the text 'Interreg Italia-Malta' in a bold sans-serif font, and 'Calypso south' in a smaller font below it. To the right is the European Union flag logo with the text 'UNIONE EUROPEA EUROPEAN UNION'. At the bottom, it reads 'Fondo Europeo di Sviluppo Regionale European Regional Development Fund'.

Interreg
Italia-Malta
Calypso south
UNIONE EUROPEA
EUROPEAN UNION
Fondo Europeo di Sviluppo Regionale
European Regional Development Fund

Preamble – let us start from the same footing!

WAIT A MOMENT: What do we mean by data?



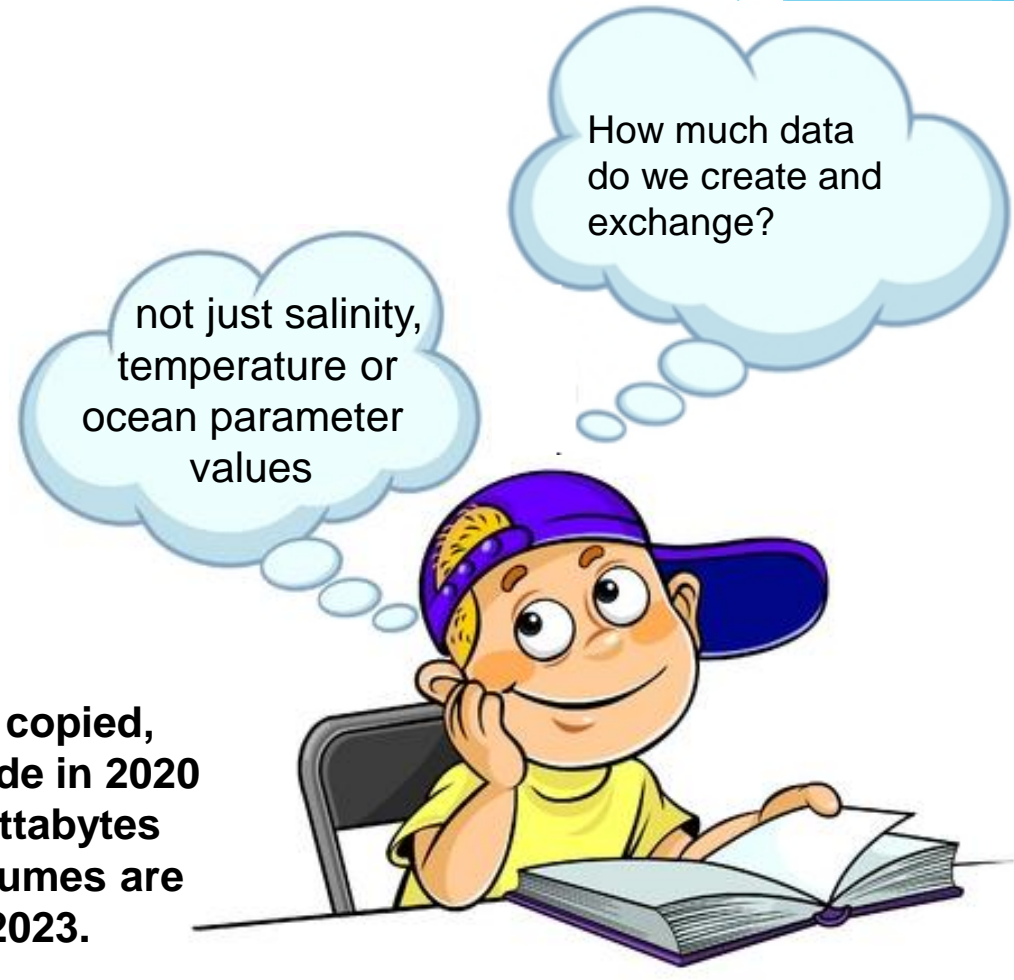
Data entails all those inputs that compose information and generation of knowledge, providing quantitative measures and controls of assessments, experiences and performances of our major daily actions.



Data provides the essential ingredients for informed and calculated decisions, choices and actions.



Data created, captured, copied, and consumed worldwide in 2020 is estimated to be 59 zettabytes in 2020. Global data volumes are expected to double by 2023. (www.statista.com)



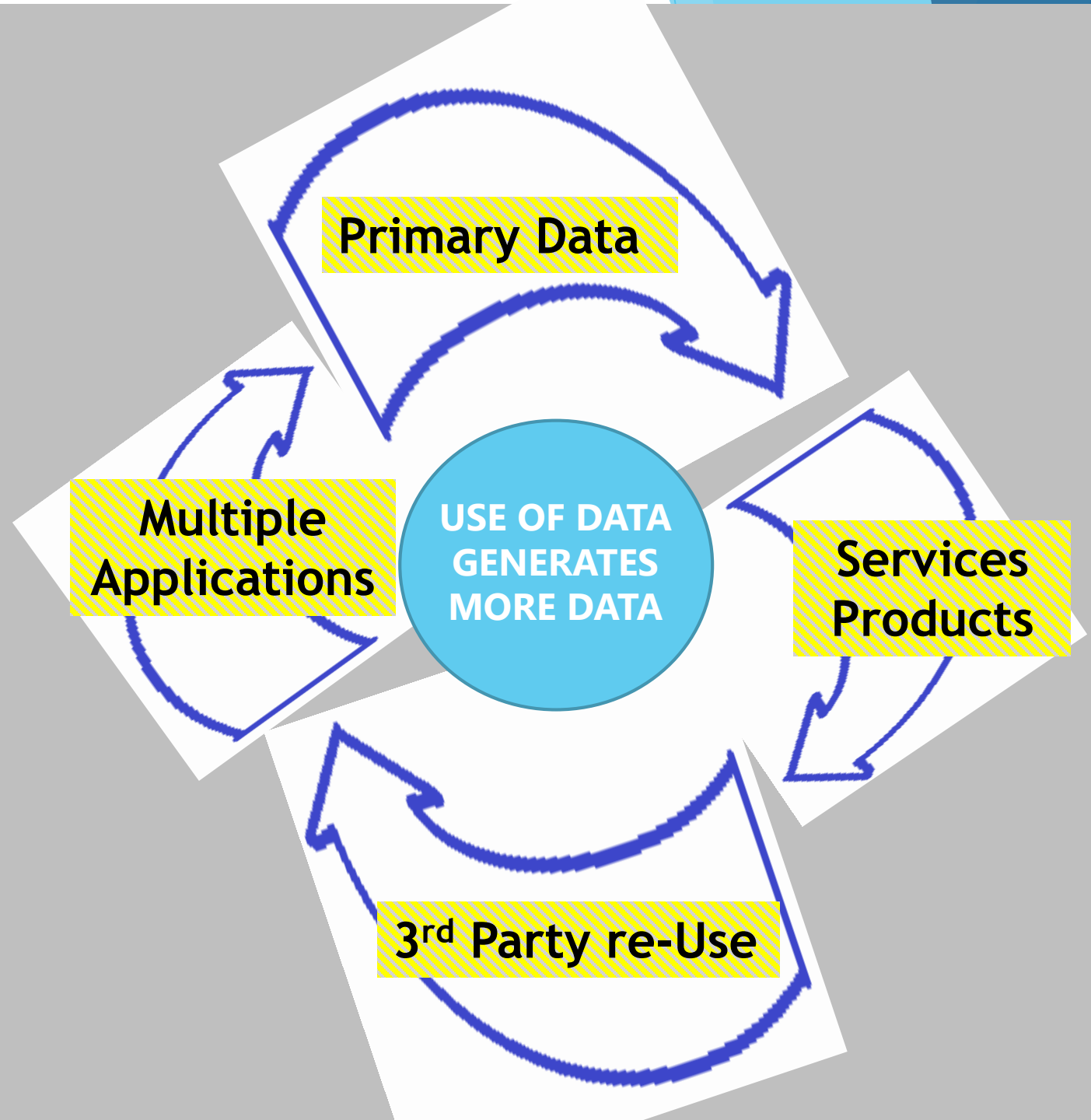
Circular data ecosystem

Raw data is originally generated mainly for target usage and clients

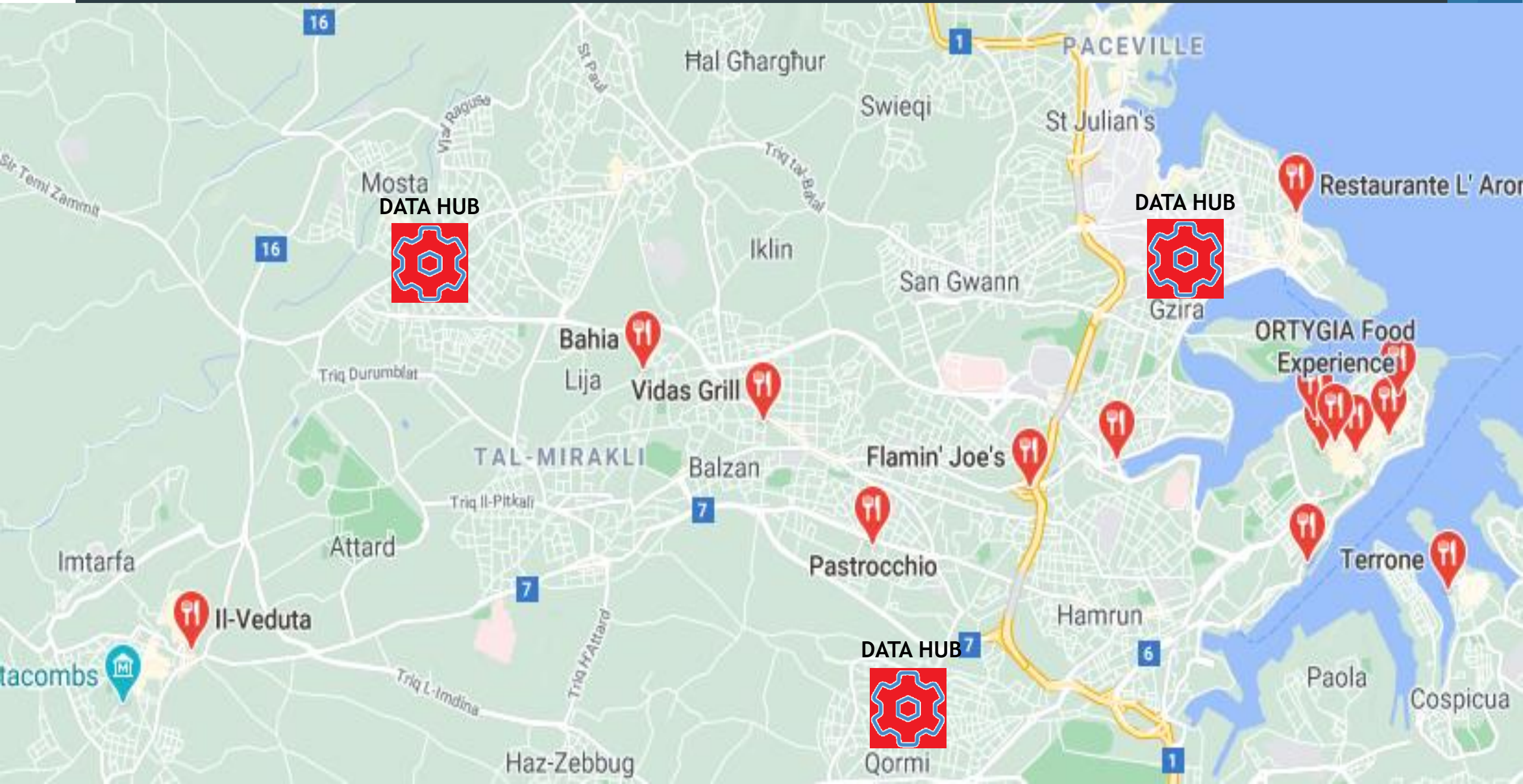
Re-use of data by third parties generates more request of dependent data

Multiple applications further generate more data that is eventually merged to primary data

Enhanced data sets spin further and wider usage



Searching for organized data services



PORTO Online – a featured data interface

Interreg
Italia-Malta
Calypso south

PORTO online
Observations

- Meteo Stations
- Sea Level Stations

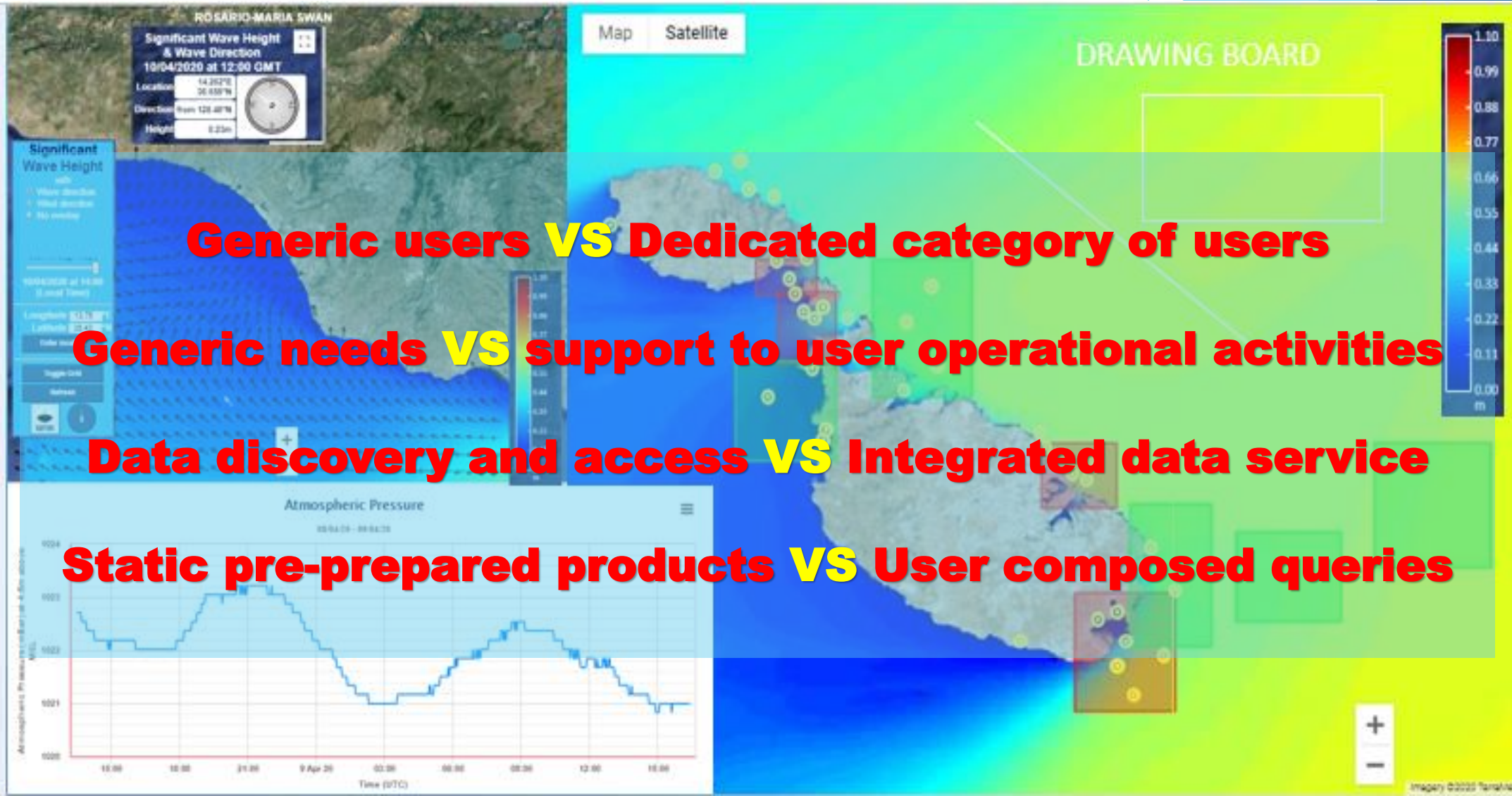
Forecasts

- Model Sub Areas
- Ports
- Bunkering / Waiting Areas
- Oil Platforms
- Model Wave Spectra

Development

- Bunkering/Waiting Areas

Save current configuration #



Generic users VS Dedicated category of users

Generic needs VS support to user operational activities

Data discovery and access VS Integrated data service

Static pre-prepared products VS User composed queries

PORTO Online – GIS-like web tools

PORTO online

Observations

Meteo Stations

Sea Level Stations

Forecasts

Model Sub Areas

Coastal

Offshore

Model Wave Spectra

Marine Activities

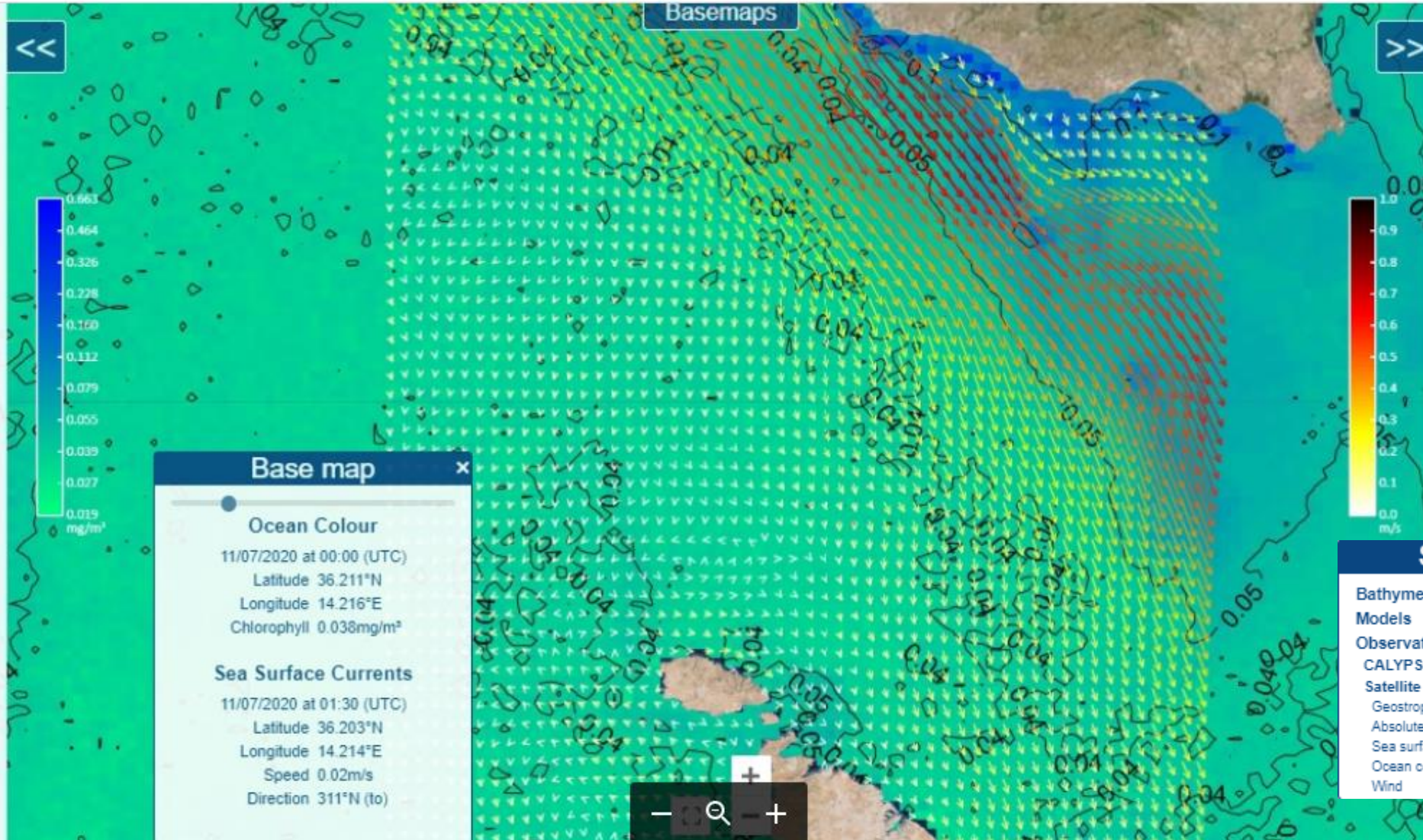
Ports/Marinas

Bunkering/Waiting Areas

Bunkering Points

Oil Platforms

Save current configuration



Map controls

Select layers

- Bathymetry
- Models
- Observations
- CALYPSO radars
- Satellite
- Geostrophic currents
- Absolute dynamic topography
- Sea surface temperature
- Ocean colour
- Wind

PORTO Online – User-specified content delivery

PORTO online
Observations

Meteo Stations

Sea Level Stations

Forecasts

Model Sub Areas

Coastal

Offshore

Model Wave Spectra

Marine Activities

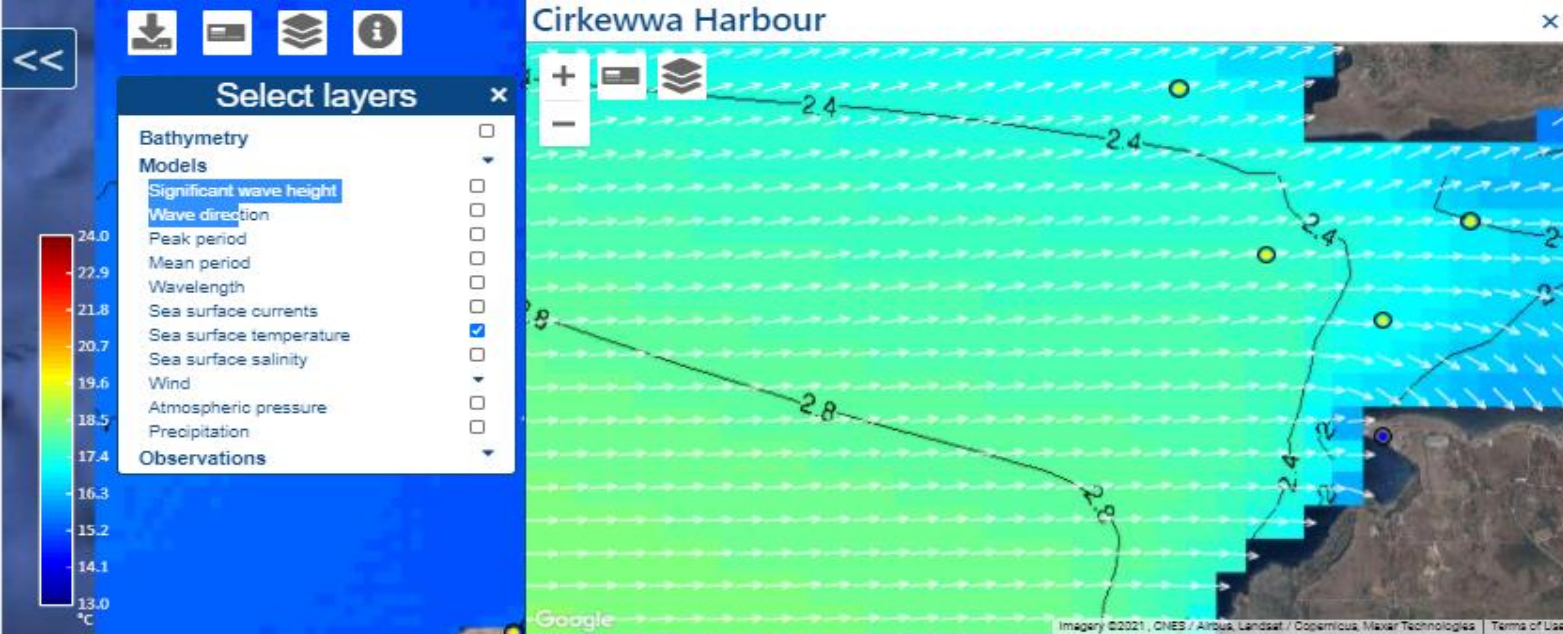
Ports/Marinas

Bunkering/Waiting Areas

Bunkering Points

Oil Platforms

35.6938, 15.3926



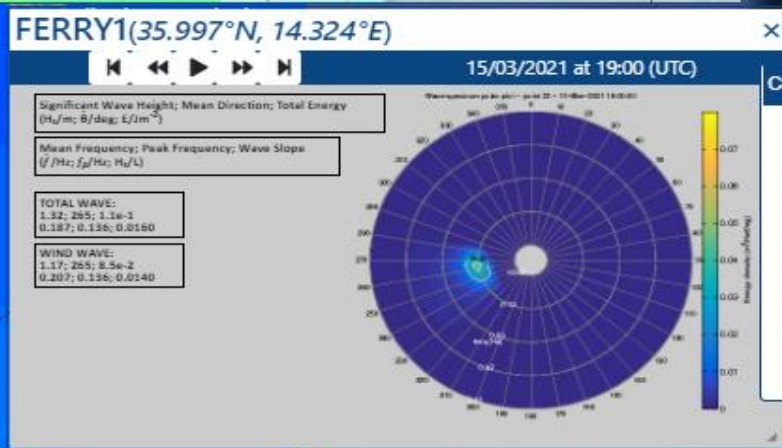
Interreg Italia-Malta Calypso South

Map controls

Cirkewwa Harbour
35.9784, 14.3332

Significant Wave Height
16/03/2021 at 09:00 (UTC)
Latitude
Longitude
Height

Wave Direction
16/03/2021 at 09:00 (UTC)
Latitude
Longitude
Direction



Cirkewwa Harbour

- Significant wave height
- Wave direction
- Peak period
- Mean period
- Wavelength
- Sea surface currents
- Sea surface temperature
- Sea surface salinity
- Wind
- Bathymetry

PORTO Online – special functionalities

PORTO online

Observations

Meteo Stations

Sea Level Stations

Forecasts

Model Sub Areas

Coastal

Offshore

Model Wave Spectra

Marine Activities

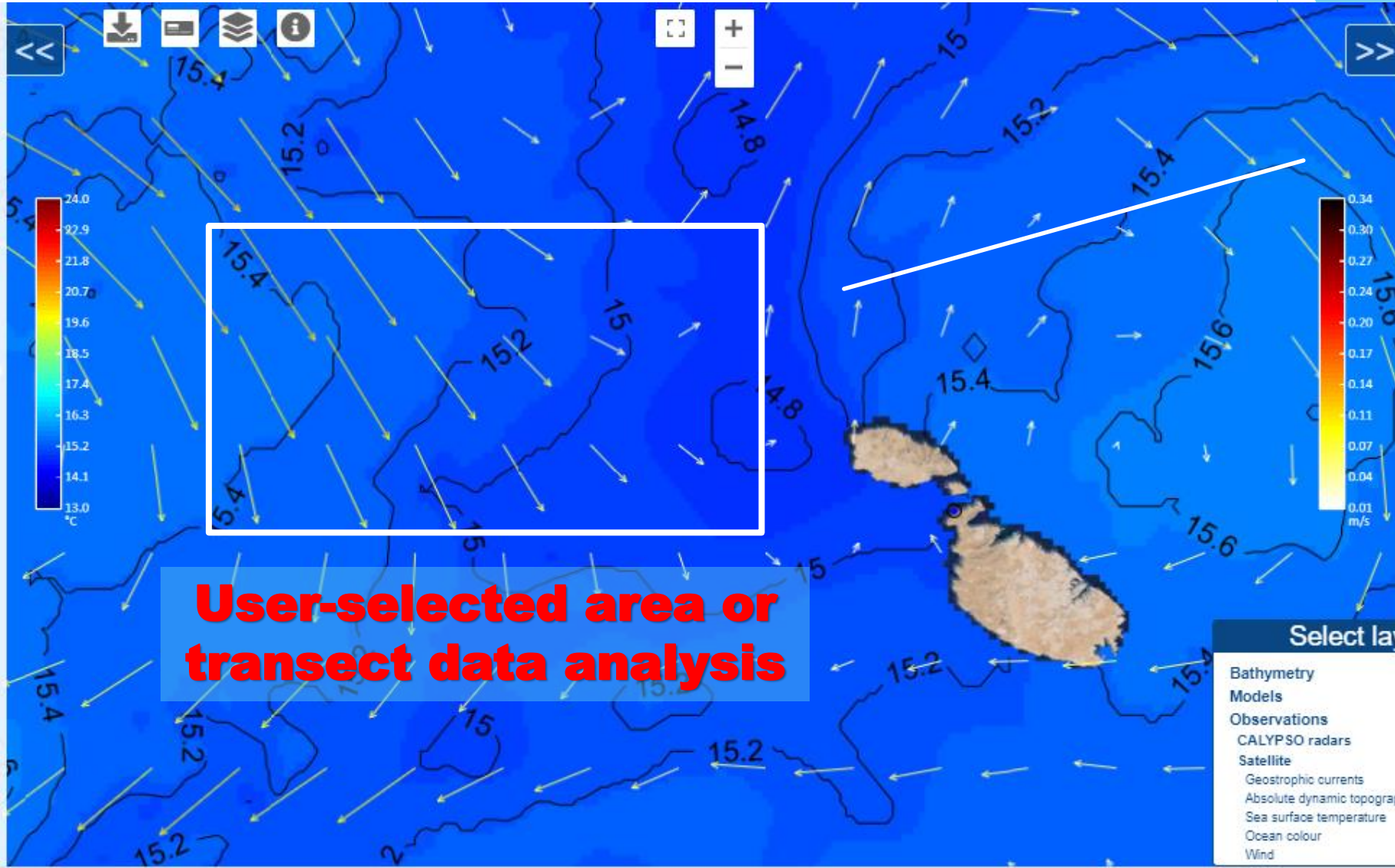
Ports/Marinas

Bunkering/Waiting Areas

Bunkering Points

Oil Platforms

36.2416, 14.7684



**User-selected area or
transect data analysis**

Select layers

- Bathymetry
- Models
- Observations
- CALYPSO radars
- Satellite
- Geostrophic currents
- Absolute dynamic topography
- Sea surface temperature
- Ocean colour
- Wind

Map controls

PORTO Online – real-time updating of data

PORTO online

Observations

Meteo Stations

Sea Level Stations

Forecasts

Model Sub Areas

Coastal

Offshore

Model Wave Spectra

Marine Activities

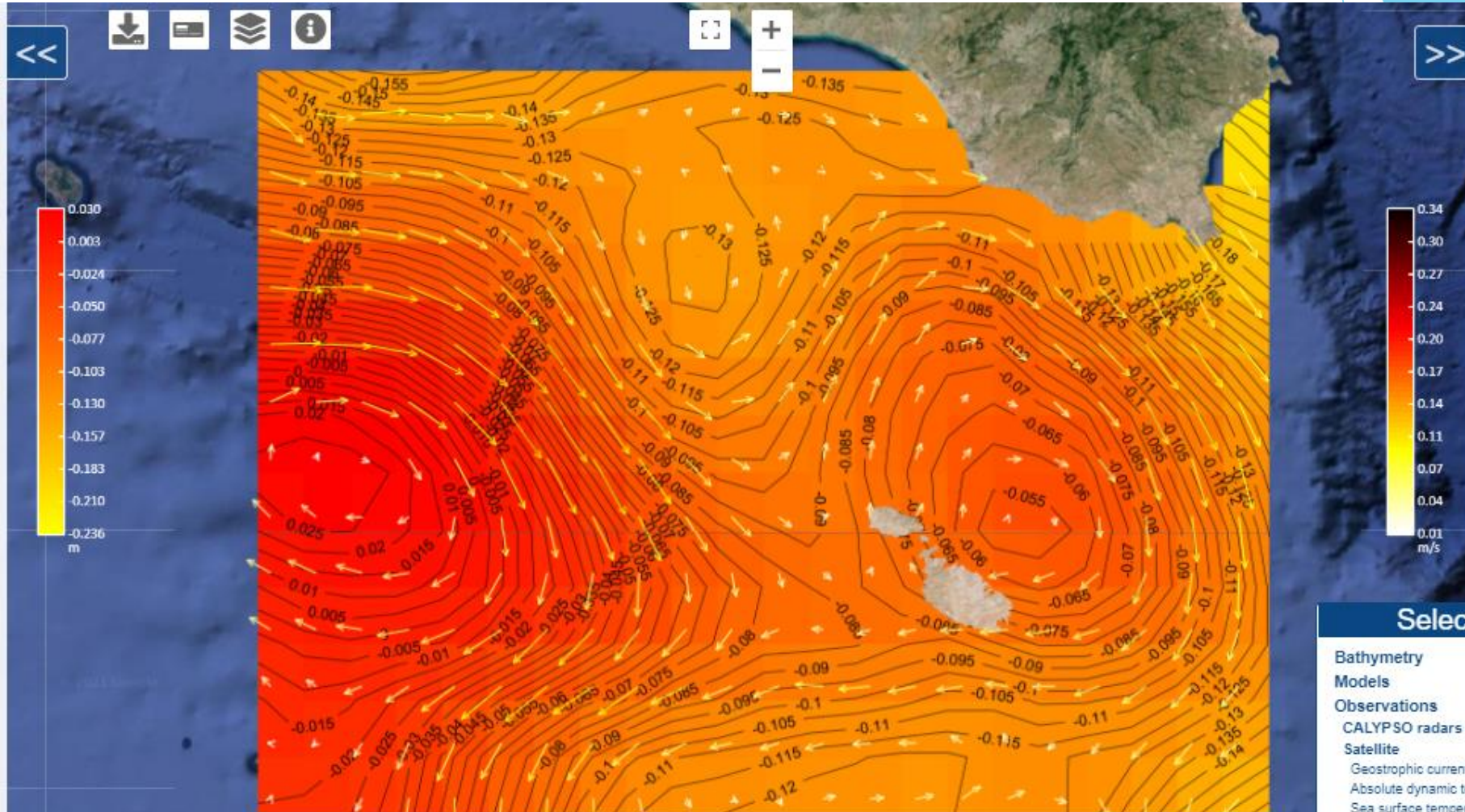
Ports/Marinas

Bunkering/Waiting Areas

Bunkering Points

Oil Platforms

35.8701, 15.2353



Map controls

Select layers

- Bathymetry
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- Wind

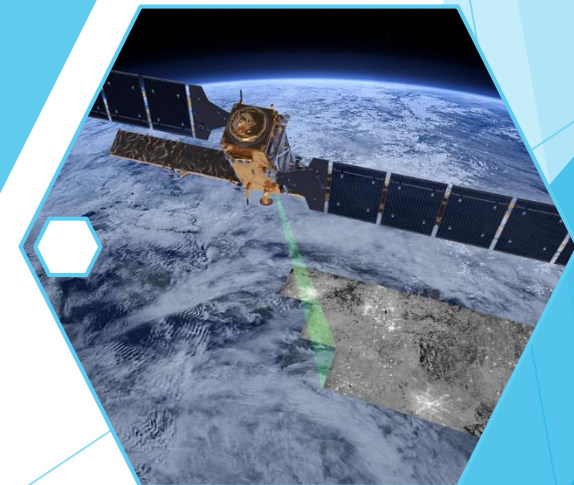
Comparing observations with models

PORTO Data Sources

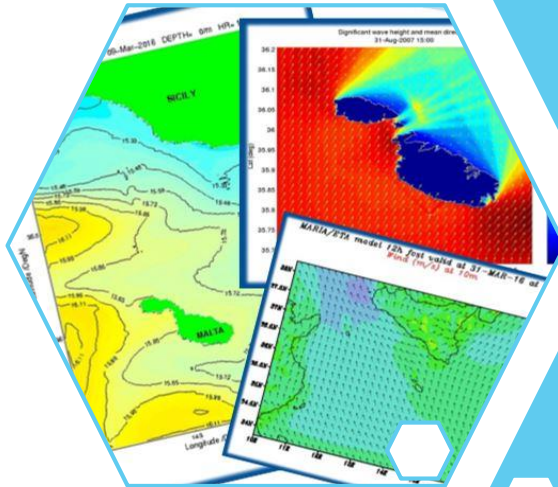
Coastal observations



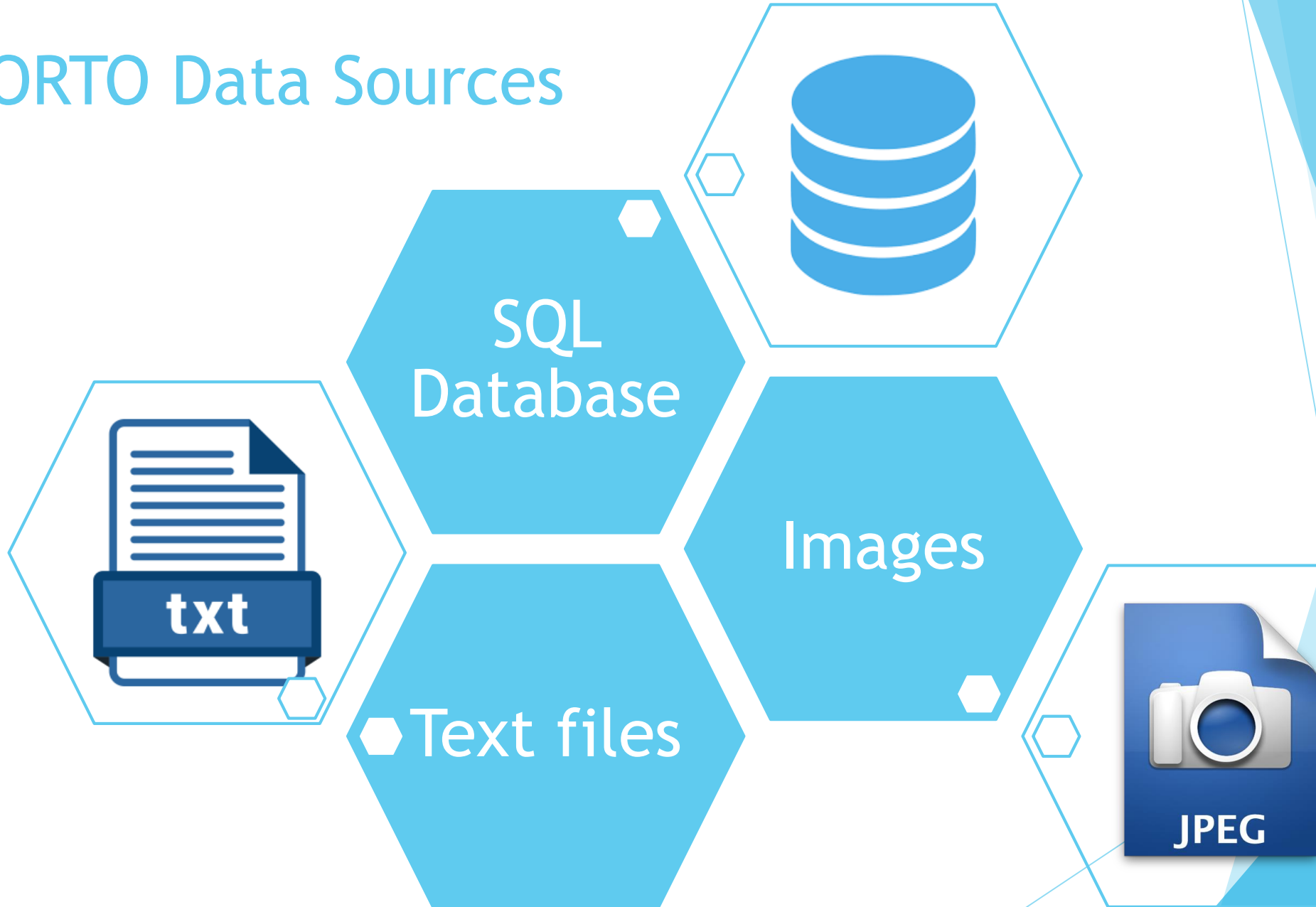
Remote sensing



Models



PORTO Data Sources



PORTO Data Delivery



PORTO User Interface

- HTML5 Storage
- Bootstrap
- Google maps
- Asynchronous JavaScript And XML
- Highcharts
- Progressive Web App

The logo for imdis 2021, featuring the text "imdis" in a lowercase sans-serif font above "2021" in a larger, bold, lowercase sans-serif font. To the right of the text is a graphic of several concentric, curved lines in shades of blue, resembling a stylized signal or data path.

imdis
2021

Thank you for listening

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