

# European Maritime Day

## Digital transformations supporting coast guard functions – workshop

### EMSA

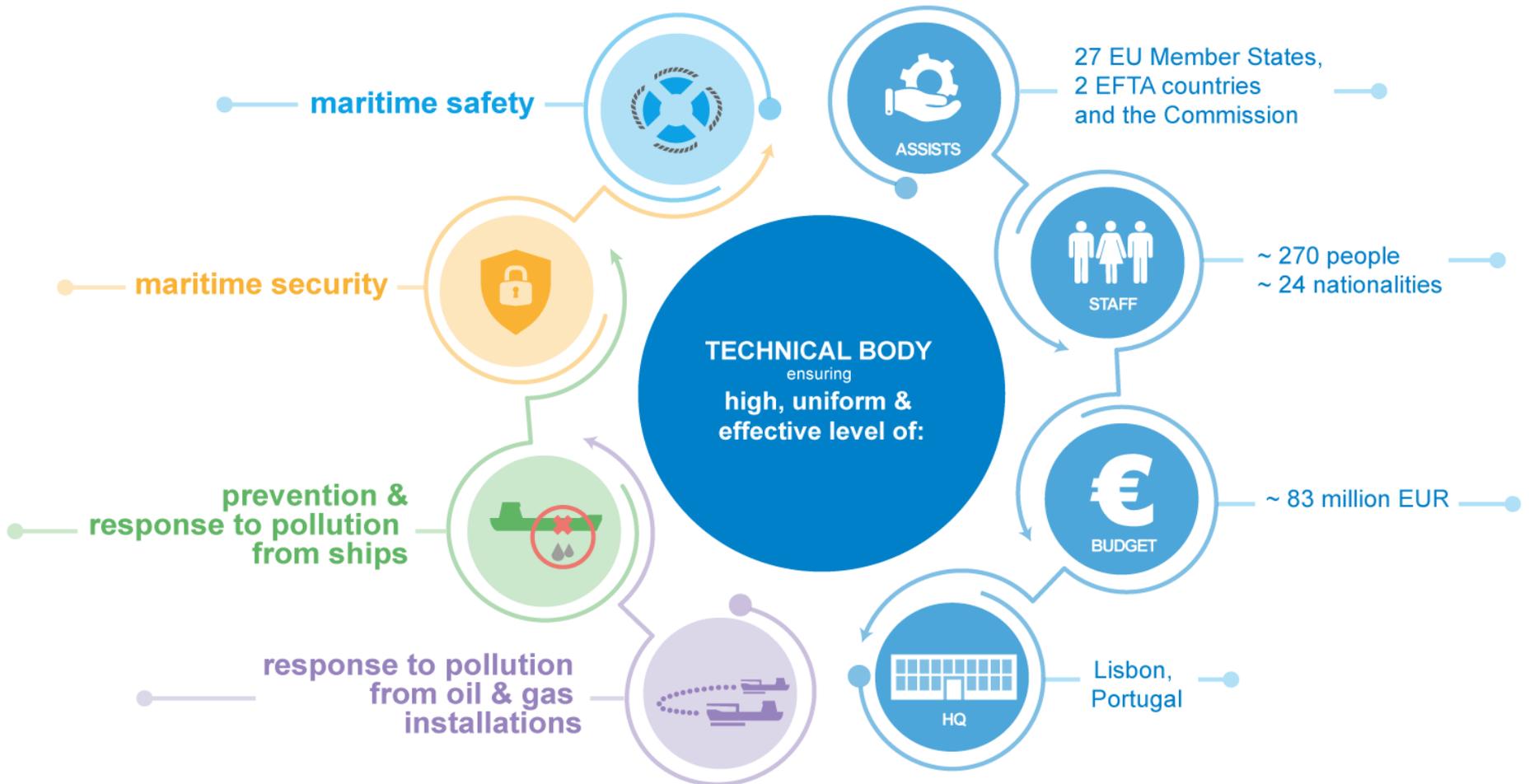
Leendert Bal

Head of Department

Safety, Security and Surveillance

Ravenna / 19 May 2022







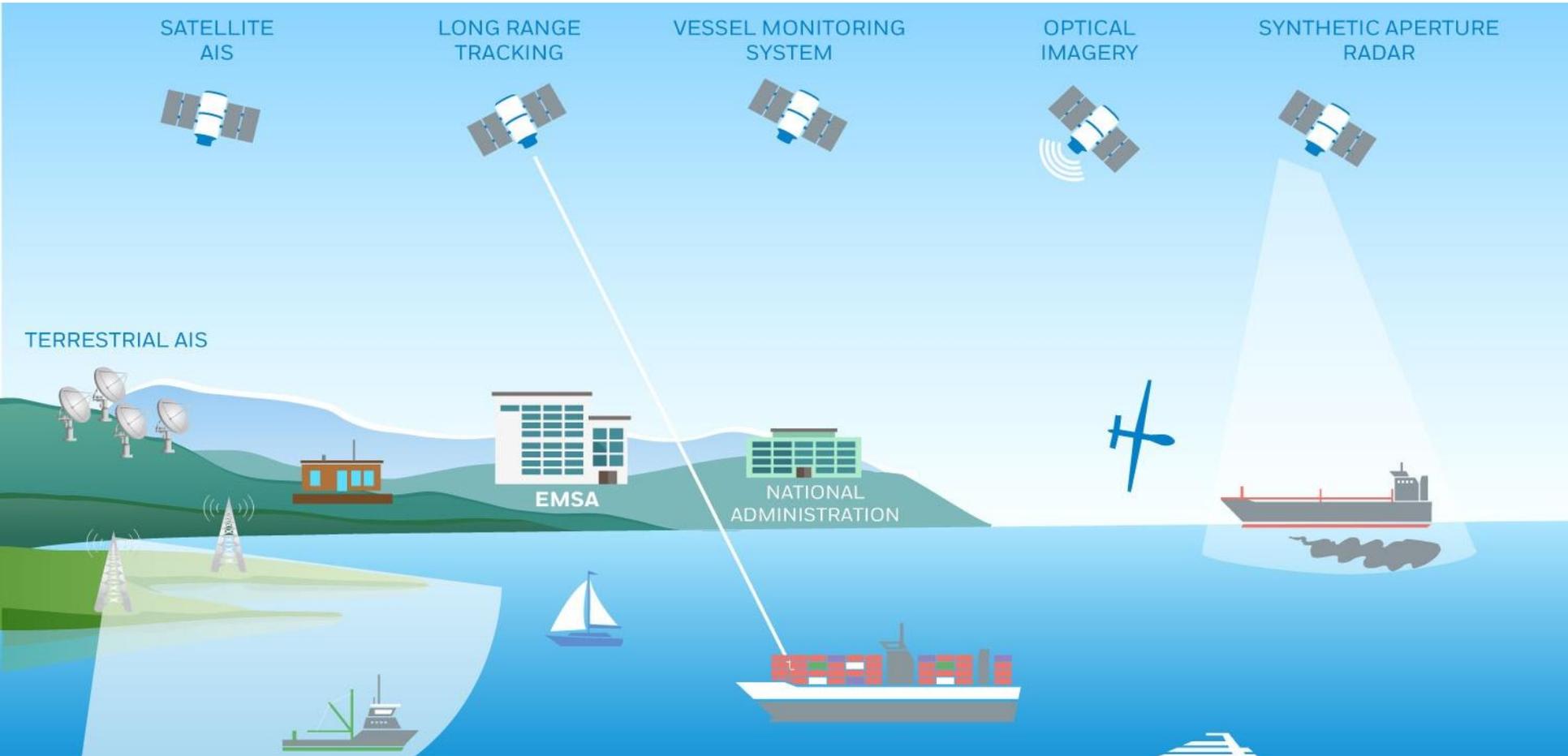
-  Sustainability
-  Safety
-  Security
-  Simplification
-  Surveillance

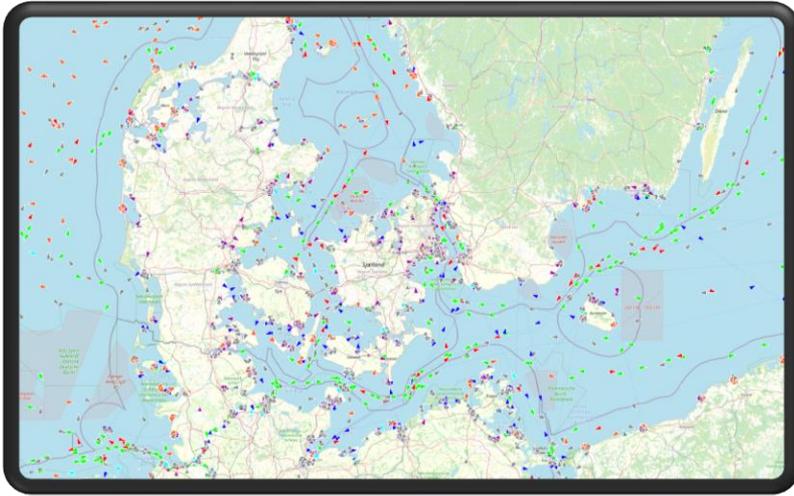
as

- service provider
- reliable partner
- international reference
- knowledge hub

Modern organisational management  
efficient, stakeholder oriented, smart, transparent  
and gender balanced

# Maritime Data Sources





## What can I get from the IMS?

*Maritime Picture*

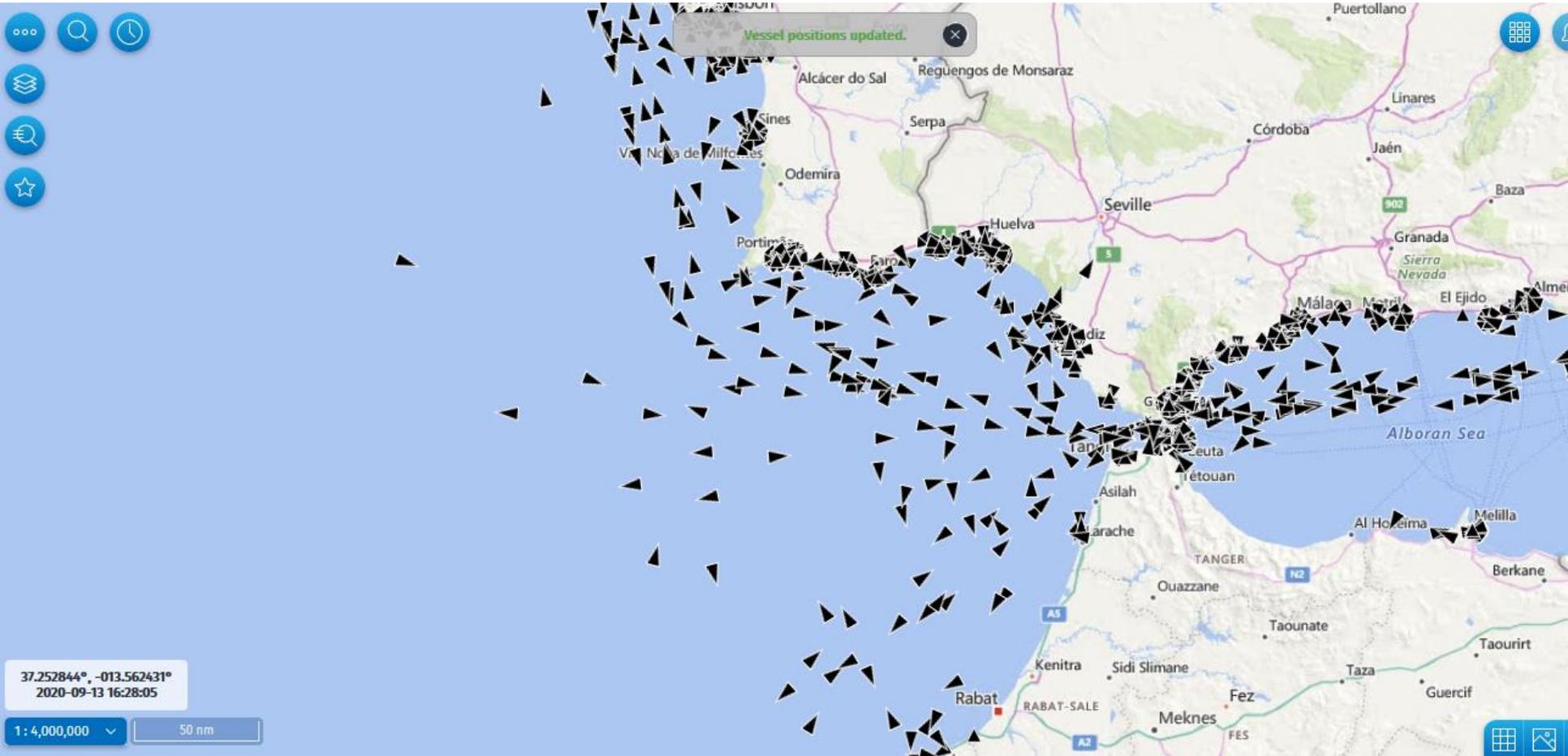
*Graphical interface(s) – web browser and Mobile*

*Webservices for specific data and functionalities*

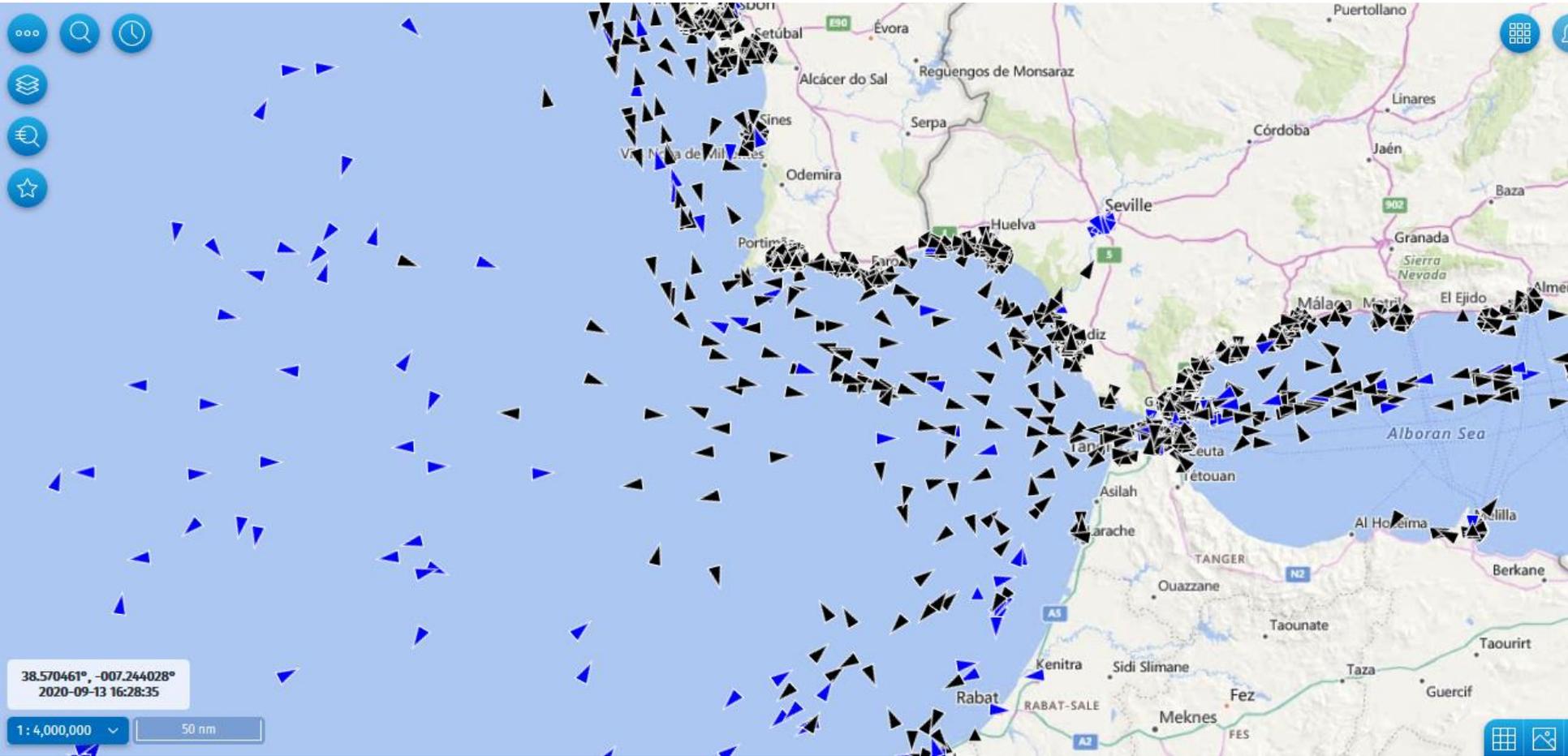
*Automatic detection and alerting*

*‘Operation specific’ information/ data*

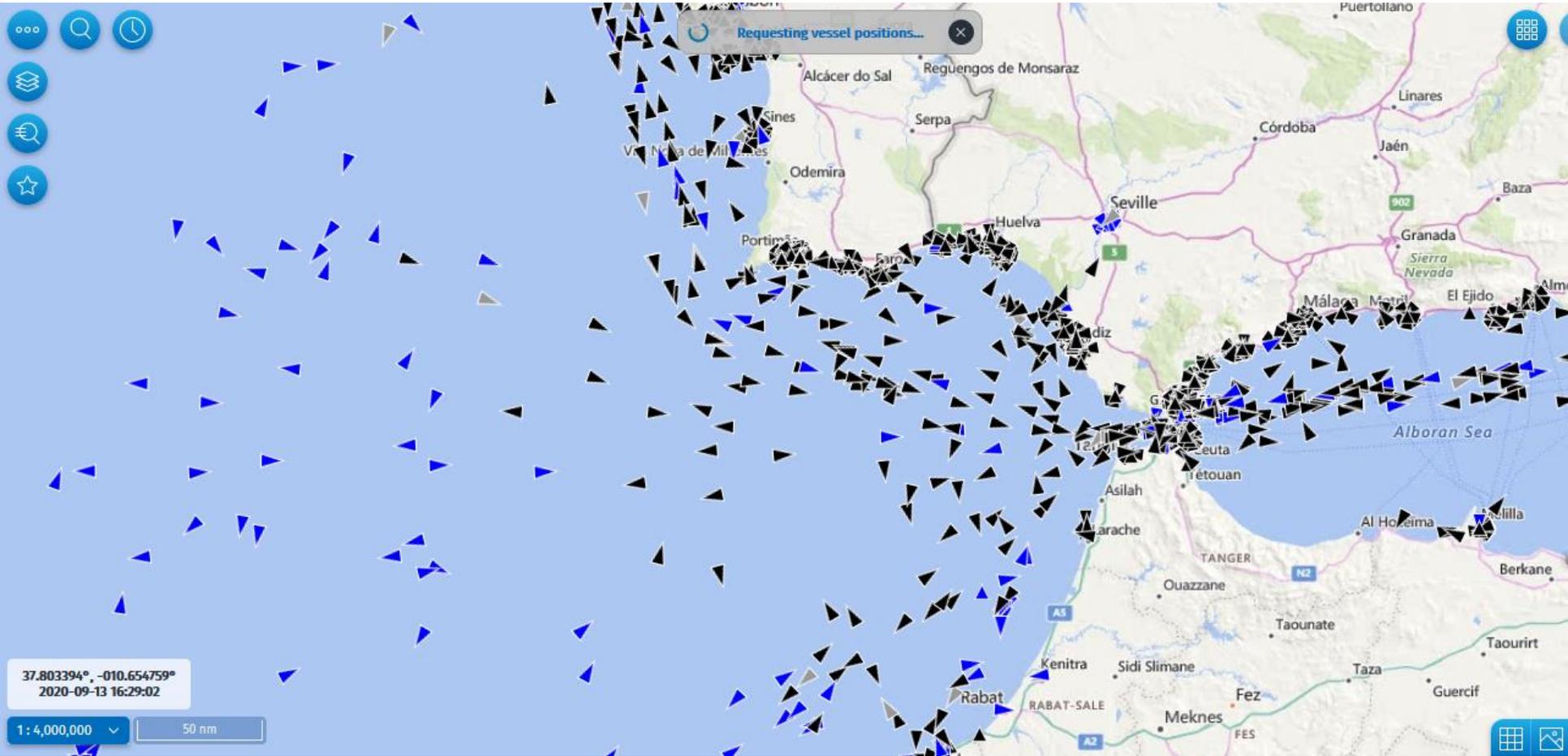
# IMS with T-AIS only



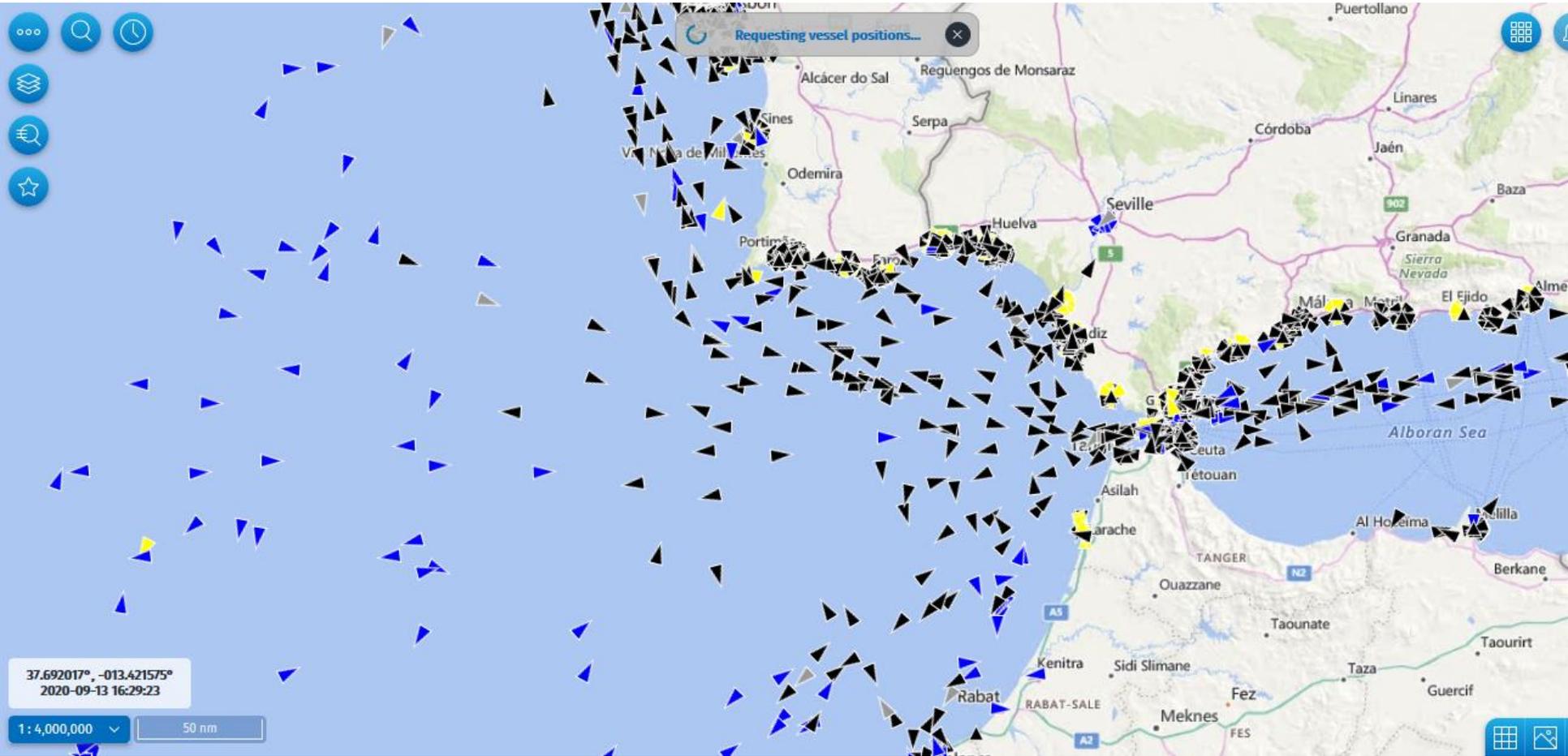
# IMS with T-AIS and S-AIS

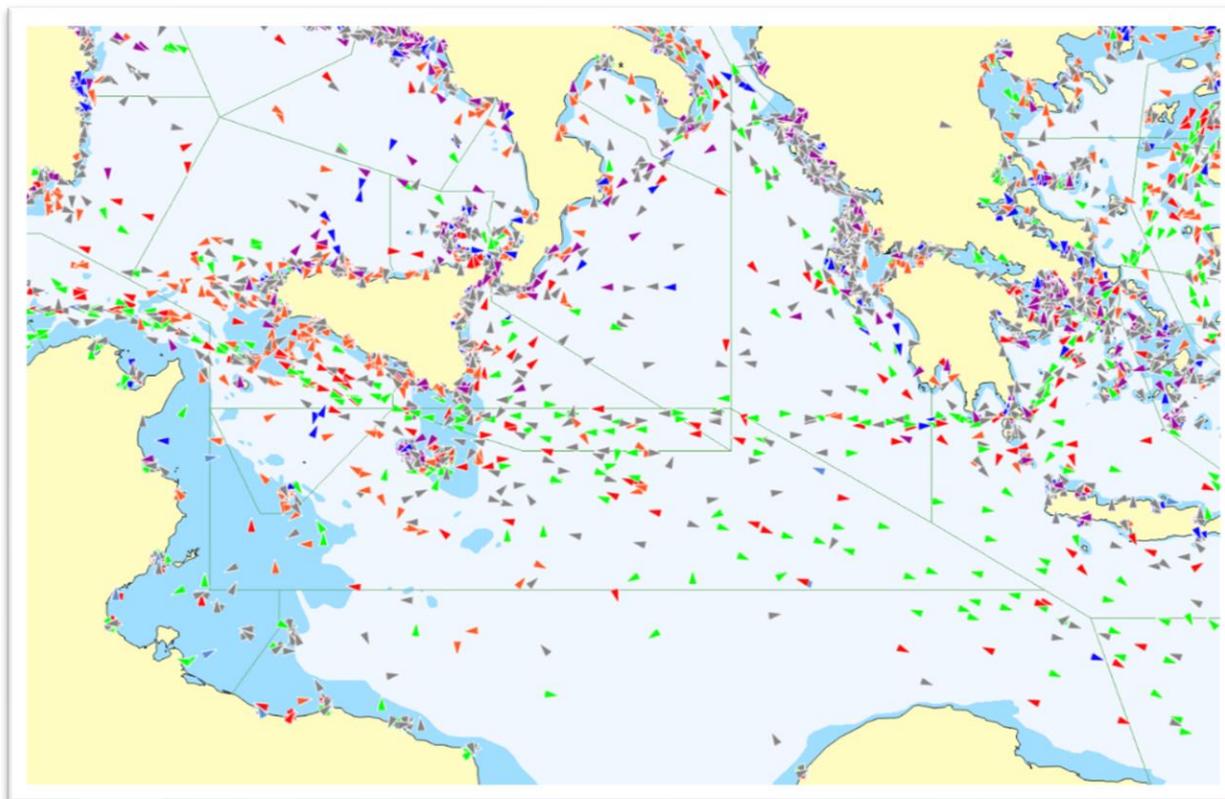


# IMS with T-AIS, S-AIS and LRIT



# IMS with T-AIS, S-AIS, LRIT and VMS





Distinct vessels:  
112,156

T-AIS 32,300

S-AIS 69,541

LRIT 8,884

VMS 1,431

Total messages in one day: 32,087,134

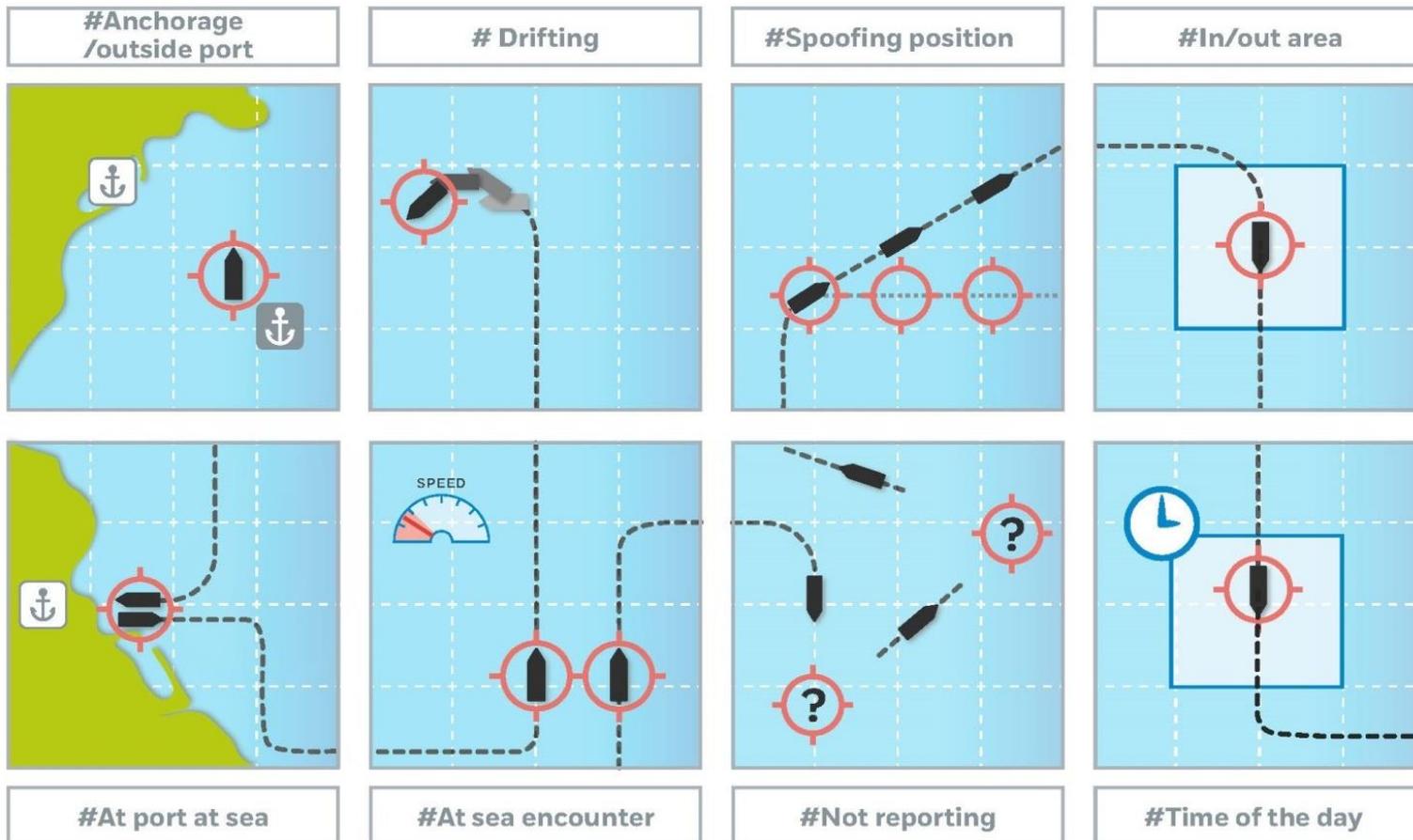
T-AIS\* 11,541,376

S-AIS 20,471,200

LRIT 35,408

VMS 39,150

## AUTOMATIC DETECTION AND ALERT TRIGGERING OF SHIP BEHAVIOUR

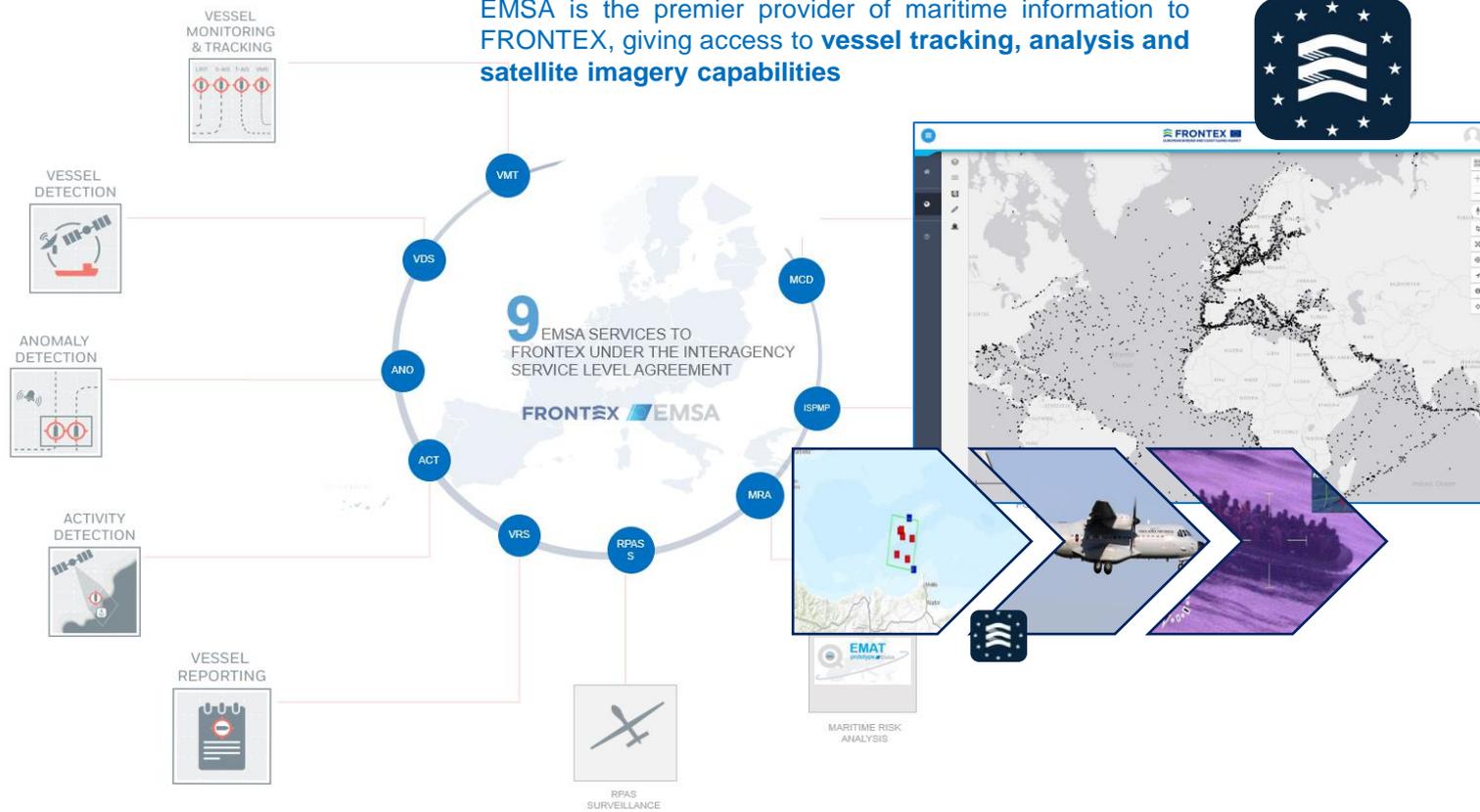




# Integrated Maritime Services (example)

## EMSA's support to Border Control

EMSA is the premier provider of maritime information to FRONTEX, giving access to **vessel tracking, analysis and satellite imagery capabilities**



### SAR DATA

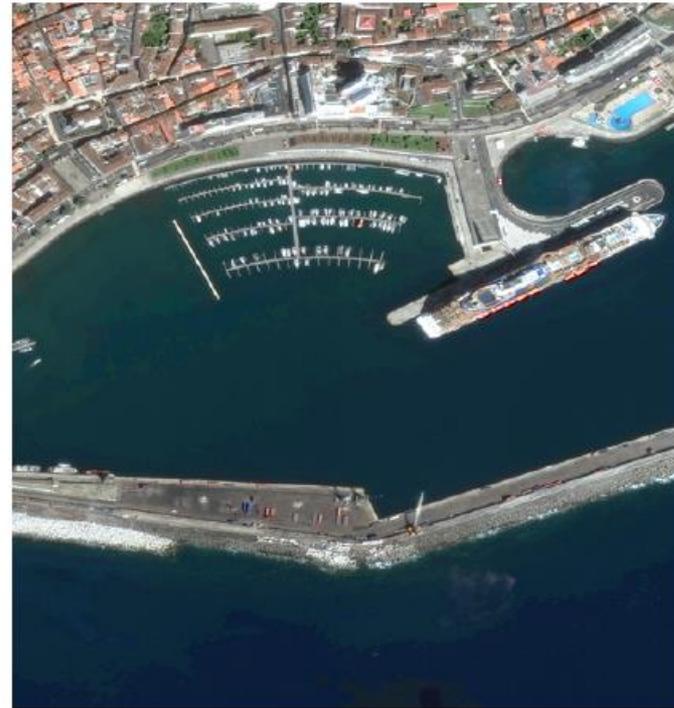
QUASI REAL TIME\* DELIVERY (20') TO USERS



Barcelona, Spain - TSX ST © DLR eV. 2019, Distribution Airbus Defence and Space GmbH

### OPTICAL DATA

NEAR REAL TIME\* DELIVERY (30') TO USERS



Ponta Delgada - Azores, Portugal - WV2 © 2018 European Space Imaging/DigitalGlobe, a MAXAR company

(\* ) Depending on acquisition size and value added products



## Pollution monitoring



> 4h  
EO/IR, sniffer



>35min  
EO/IR



>50min  
EO/IR, sniffer

## Multipurpose Maritime Surveillance



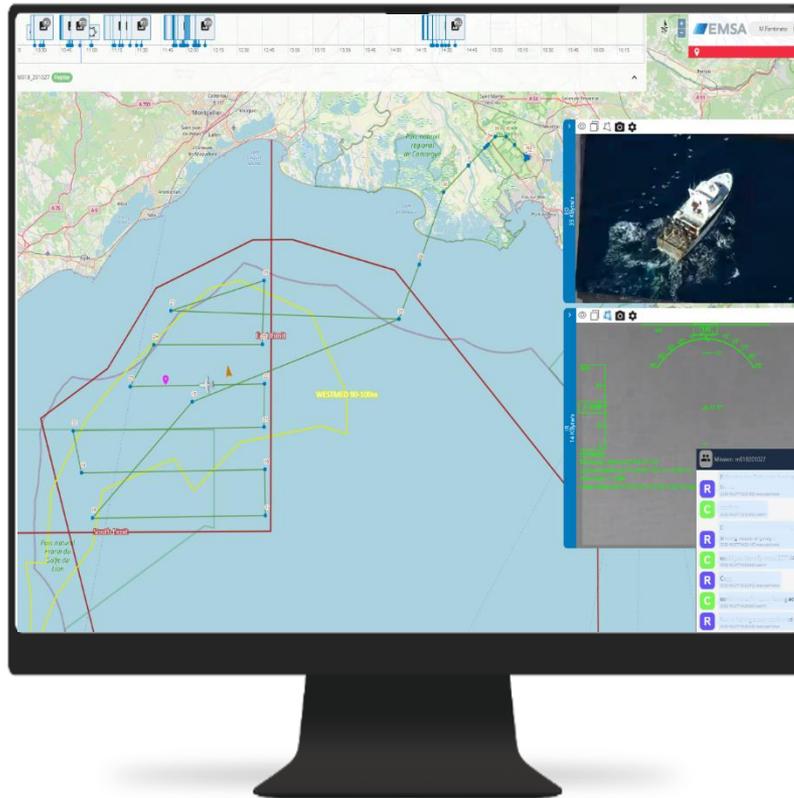
> 10h, 500 km EO/IR, Mar. radar,  
radar detector, phone detector,  
rescue boat for 8 people



>6h, 200km  
EO/IR, opt. scanner VIS



9-15h (depending on payload)  
up to 400km autonomy  
EO/IR, Radar



## EMSA RPAS Data Centre

- Plan
- Follow
- Communicate
- Detect
- Analyse
- Collect



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