

Historical ABMs and detection of port calls

IMS UCM 16.4.3

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Lisbon, 26.05.2021



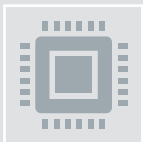
- **Historical ABMs and detection of port calls**
- **Use case/ results**
- **Future developments**
- **Actions**



New, ABM-related developments in the Cloud.



Using - High Performance Integrated Maritime Services (HP-IMS) Long Term Storage (LTS) infrastructure (Cloud).



Implement essential historical capabilities of the Automated Behavior Monitoring (ABM), including automatic detection of the port calls, at the global scale.

Past



New
Capability !



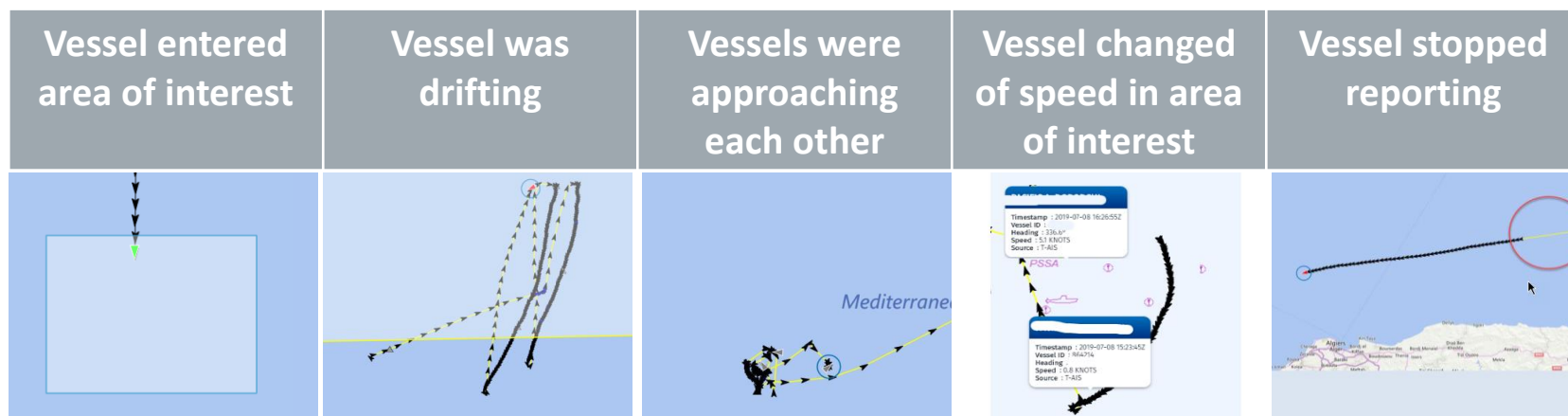
Now



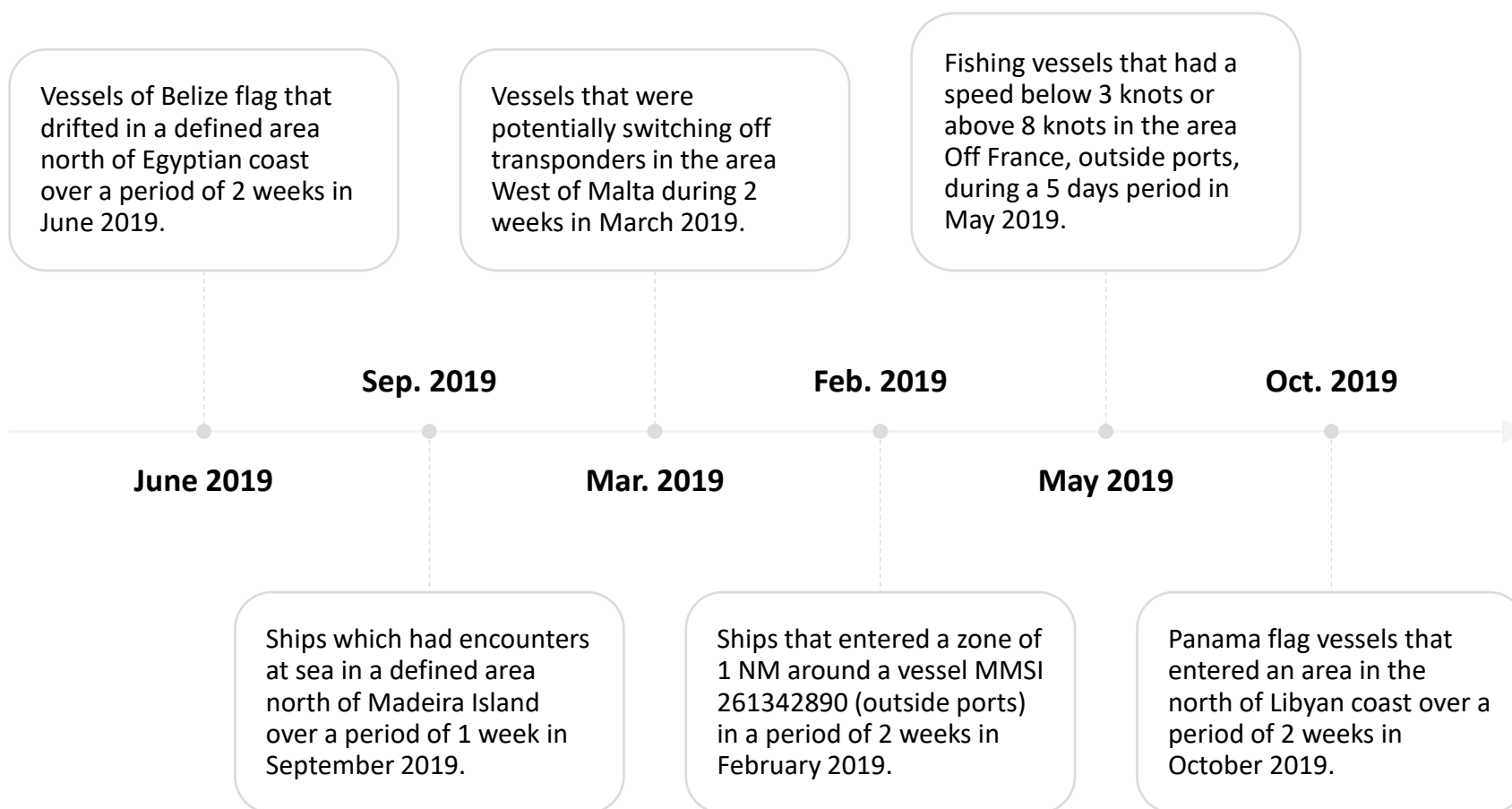
Future

Anomalous vessel behaviour specific situations in the past, based on historical position reports:

- Entry to an area (In area);
 - Drifting;
 - At sea encounter;
 - Speed anomaly;
 - Not reporting;
 - Zone around ship;
 - Port Calls* (separate service supported by 'Interoperability')
- VTMIS- Dir. 2002/59/EC, as amended context:
- Improving quality of the SSN mandatory reporting (contribution to response to accidents);
 - Verification of the obligation of the ship as regards the reporting of the destination/arrival/port call.
 - Verification of the reporting of incidents and accidents at sea
 - Identification of ships posing a potential hazard to shipping
 - Helping in monitoring of the IMO AIS performance standards requirements



Example of the use cases H-ABMs



- A user needs to obtain the 3-months history of port calls at a global level, for selected ships

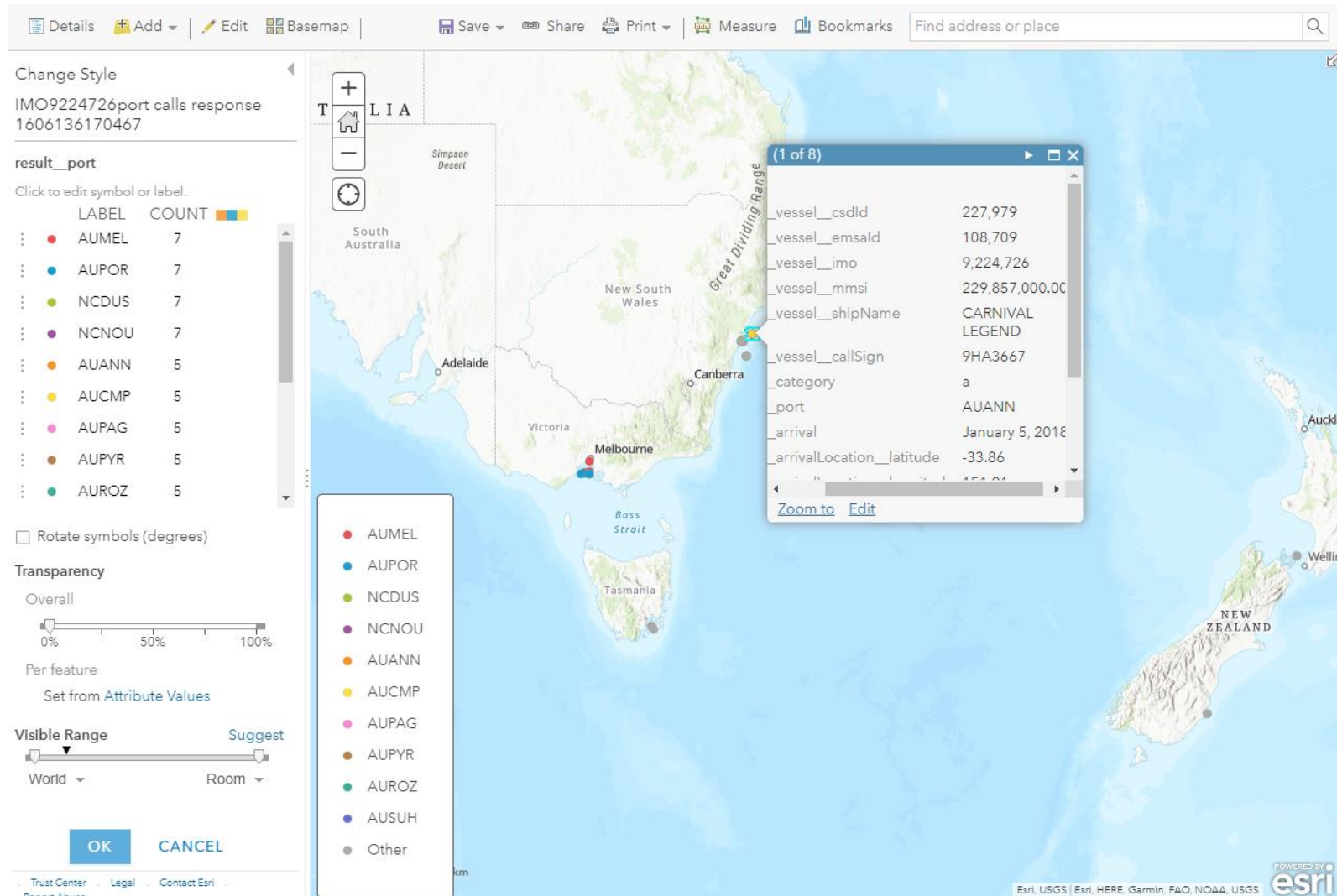
Typically, users will query for the vessels having IMO numbers and engaged in the international trade – however the service allows searching also for smaller vessels, based on MMSI.

- A VTMS user needs to obtain a list of vessels that called at a specific port in a defined period from date X to date Y, together with the details (date and time) of the port calls.
- An IMS user needs to obtain last 10 port calls of a specific vessel.
- An IMS user needs to the list of all port calls available for a specific vessel.

Example – Carnival Legend in 2018 (Australia and New Zealand)

ArcGIS My Map

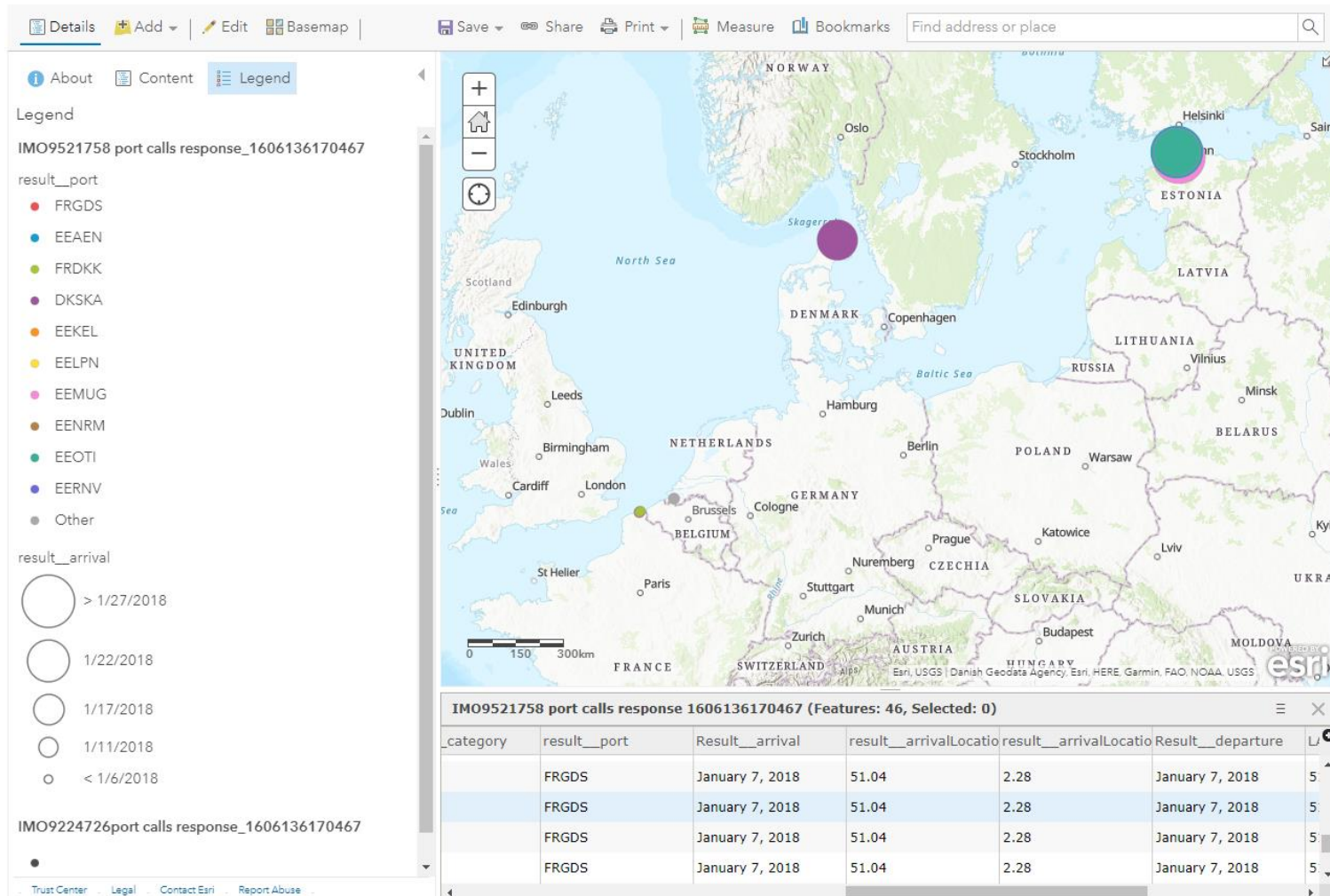
New Map Lukasz



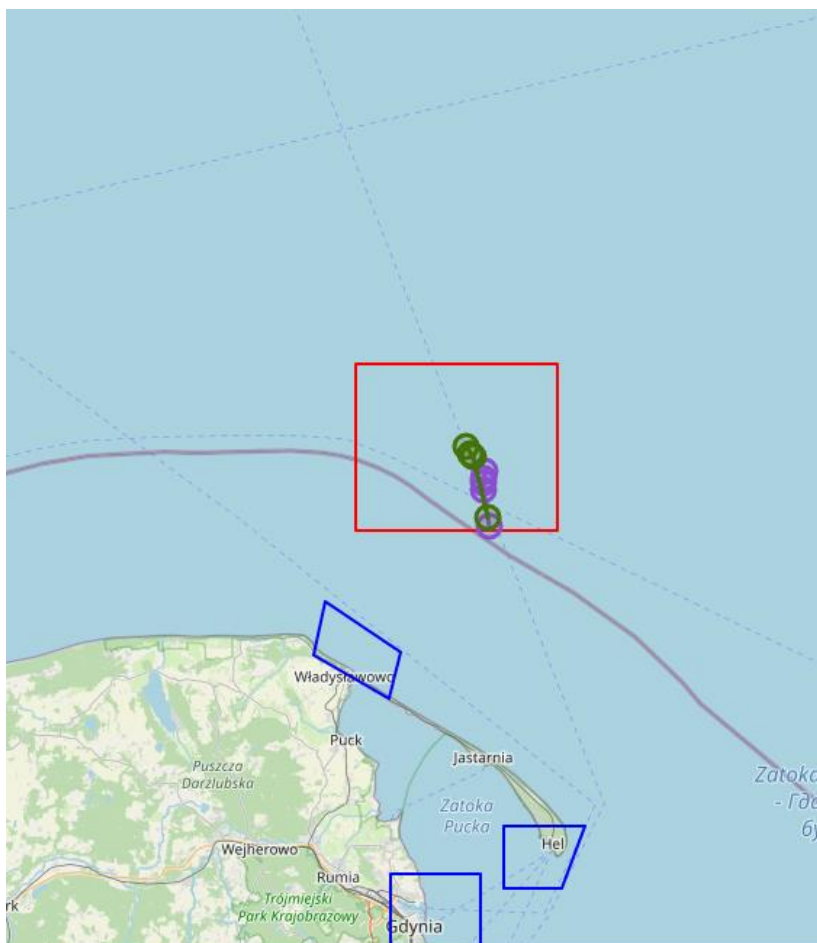
Example – Rogalica 2018

ArcGIS My Map

New Map Lukasz



Example - At Sea Encounter - Feb 21. South Baltic



Vessels:

Overview:

Main Vessel Yes	Navigation Status 7	
IMO 28111	MMSI 28111	IR N.A.
Type 315	Breadth 6	Length 21
Name V	Flag State PL	Call Sign SP1
Last Port Call:		
Port: N.A.	Arrival Time: N.A.	Departure Time: N.A.

Location ([Google Maps](#)):

Timestamp	Latitude	Longitude	Heading	Speed
2021-02-01 11:23:24 GMT	54.95425	18.683125		3

Overview:

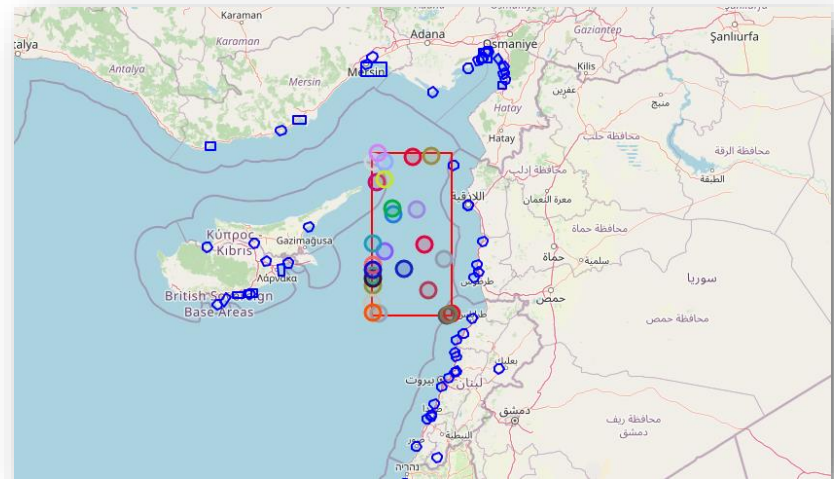
Main Vessel No	Navigation Status 7	
IMO 261004340	MMSI 261004340	IR N.A.
Type 315	Breadth 6	Length 25
Name V	Flag State PL	Call Sign SP1
Last Port Call:		
Port: N.A.	Arrival Time: N.A.	Departure Time: N.A.

Location ([Google Maps](#)):

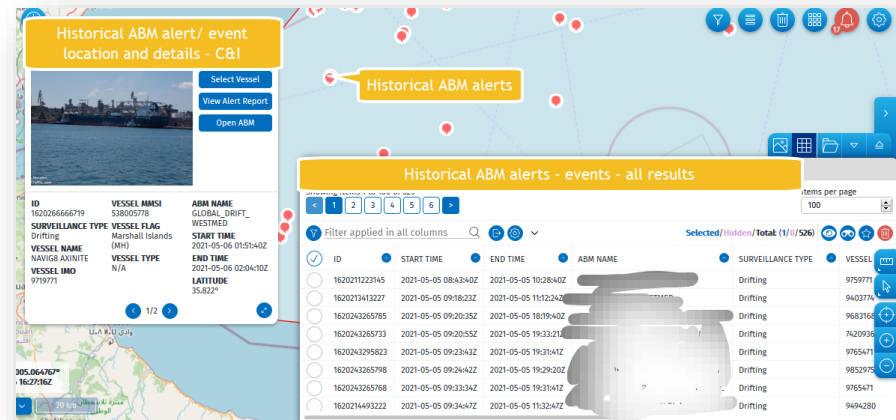
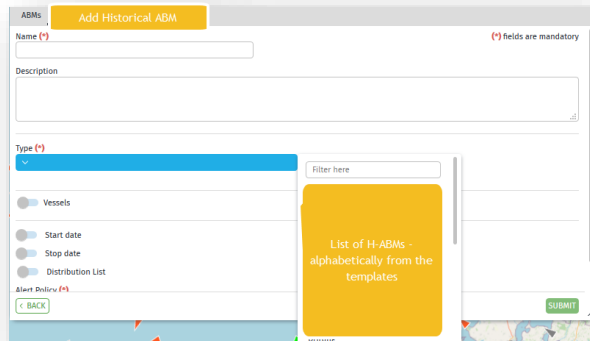
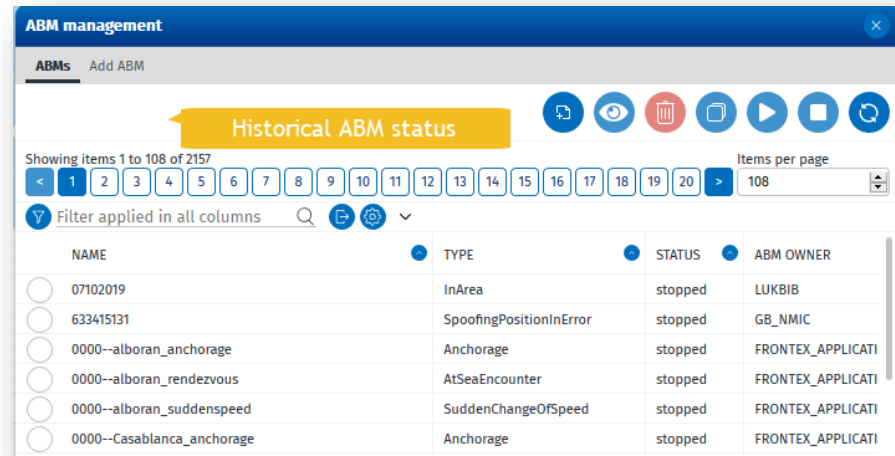
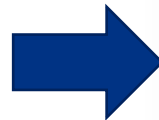
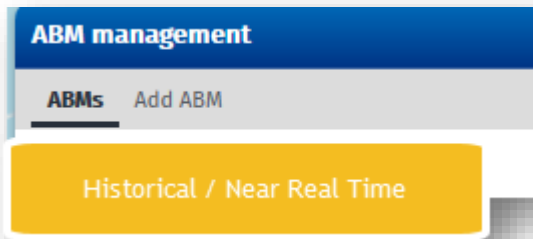
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2021-02-01 11:26:01 GMT	54.954494	18.676687		2.7

Event 2

- Pre-operational validation(s) -
- PDF aggregated report
- Usage by other services
- SEG implementation – pending drafting new requirements



‘Historical’ ABMs were initially validated with a group of active ABM users from EU Bodies and Member States (BE, PL, IT, ES, HR, DE, DK, IE, NL).



- **Take note of the current H-ABM status**
- **Analyse further operational needs for H-ABMs**
- **Communicate them to EMSA (ABM WS 7 and UCM#17)**

Volunteers are needed



- Further validation of the Historical ABMs (inc. port calls detection)



Integrated Maritime Services

Showing the bigger picture

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European Maritime Safety Agency