



An advanced surveillance platform to improve the **EUROpean Multi** **Authority border R Security** efficiency and cooperation

Technological Components of the EURMARS Platform

The EURMARS platform integrates diverse surveillance technologies to strengthen European border security through a multi-layered, cooperative approach. It combines satellite-based monitoring, high-altitude platforms, UAV systems, and coastal sensors with AI-powered analytics, enabling real-time detection, assessment, and response to evolving threats across maritime and land borders.



Coastal Ground and Low Altitude Sensing Systems

- Real-time geo-referenced detections for ships, vessels, persons, and vehicles
- Focus on anomaly detection
- Complements detection & tracking capabilities of the other sensors



High Altitude Sensing Systems

- 3D-LiDAR sensors on the High-Altitude Platform (Stratobus) for reliable geo-referenced vessel detections through change detection in marine environments
- Not previously used for maritime surveillance



Satellite Based Systems

- Mix of satellite infrastructures for monitoring marine activities and environmental phenomena
- Event detection through cutting-edge AI/ML software to enable spatial and temporal analysis



UAVs

- Activated in response to abnormal events
- Airborne camera systems focus on ships, small vessels and persons at sea
- Generate geo-referenced detection events
- Verifying and confirming events while patrolling targeted sea areas



This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101073985

FOR MORE INFORMATION

eurmars-project.eu

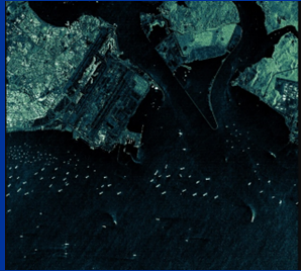
x.com/EURMARS_Project

linkedin.com/company/eurmars-horizoneu



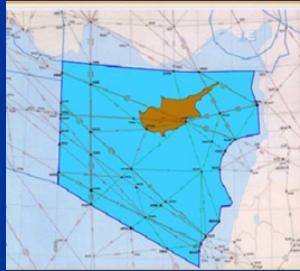
An advanced surveillance platform
to improve the **EUROpean Multi**
Authority border Security efficiency
and cooperation

EURMARS Pilot Use Cases



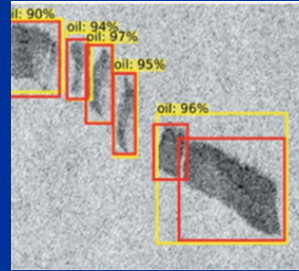
Maritime Border Control: Detection of trafficking and other illegal activities Sensing Systems

- Enhance the detection of abnormal behaviour of vessels, especially small boats
- Enhance the detection of abnormal vessel interactions



Search & Rescue Operations

- Detection and rescuing distressed individuals on a vessel
- Identifying individuals in danger
- Providing assistance to those in distress
- Saving lives in emergency situations
- Performing search and rescue operations on boats or ships



Maritime Structures and Oil Spills Surveillance & Monitoring

- Consistent Monitoring of Offshore Structures
- Prompt Identification and Detection of Environmental Incidents
- Forecast Provision of Potential Incident Development
- Support Decision Making by Suggesting Course of Actions



Land border control: illegal border crossing outside of business contingency plans

- Area Surveillance and Vessel Monitoring
- Ship-To-Ship Event Prediction and Monitoring
- Collaboration between border authorities

EURMARS Consortium



Connect with EURMARS:

