

# I-SEAMORE

## Project overview

**EVIDEN**  
an atos business

**THALES**  
Building a future we can all trust

**exail**

**PRIMOCO** UAV

 **HIPERSFERA**

 **TERRASIGNA**

 **INNOVATION**

**FGS**

**INOV**

**TNO** innovation  
for life

 **VORTEX**  
CoLab

 **ISIG**

 **Marinha**





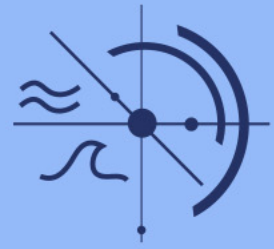
**ES**  
GROUP

 **Home Office**



Co-funded by  
the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under the Grant Agreement 101073911.

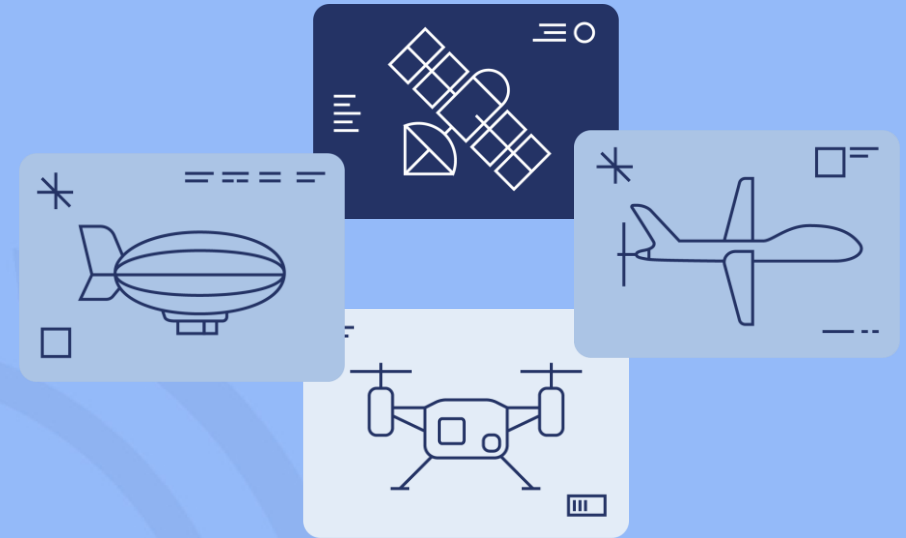


# I-SEAMORE

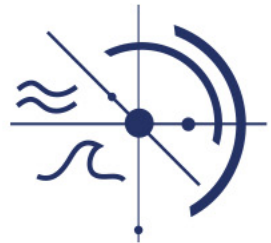
- Programme: Horizon Europe
- Duration: 30 months (01/2023 – 01/2026)
- Consortium: 17 partners – 11 countries
- Budget: €7.9 millions

## Goal:

To deliver a complete platform capable of managing the operation of multiple assets and systems with advanced maritime surveillance capabilities that can be easily deployed and operated at European Maritime Operation Centres



- **Maritime surveillance**  
(Unmanned Autonomous Vehicles; aerial and water)
- **Satellite data**
- **Artificial Intelligence**
- **Big Data Analysis**



# I-SEAMORE

## Specific objectives:

Enhanced cross border and cross-sectoral cooperation through improved information sharing

To facilitate interaction among a wide variety of stakeholders, including citizens and civil society

Improve integration environment connecting heterogeneous assets and tools

To contribute to the elaboration of policy recommendations on maritime surveillance systems

To provide reduced reaction/response times

To enhance co-creation between end-users

# Partners



## Industrial partners

EVIDEN, TNL, Exail, CS GROUP,  
PUD, HyS, TS, INI, F6S



## End users

MPT, RBP, AEAT, UKBF



## RTOs

INOV, TNO, VTX and ISIG



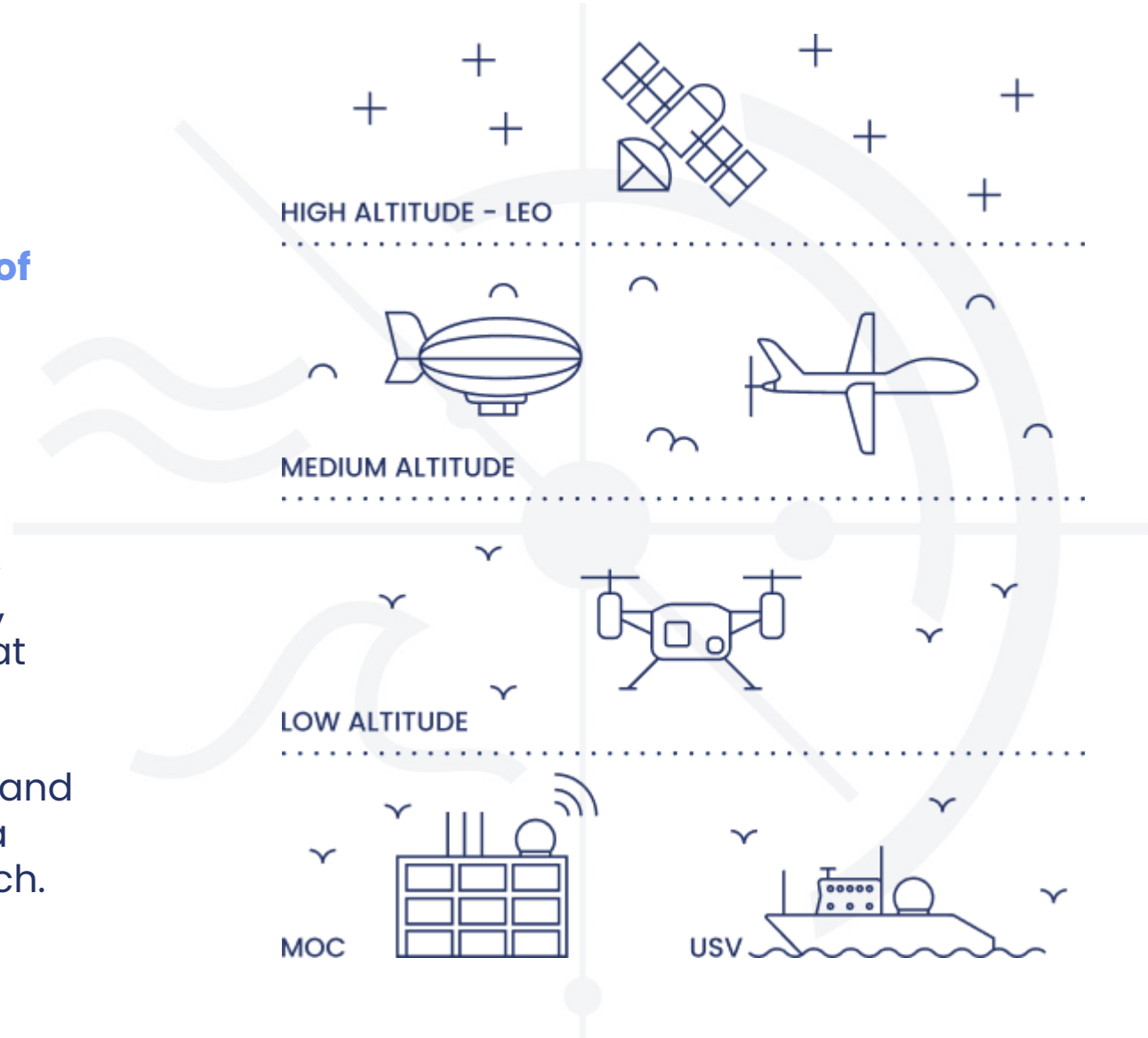


# Technical approach

I-SEAMORE will analyse and propose **novel concepts of operation towards the simultaneous deployment** of several types of unmanned assets for cooperative operations under distinct contexts and scenarios.

Focus on the combination of data acquired in **multi-levels from Satellites** (operating at Low Earth Orbits), **large UAV platforms** (operating at medium altitude), **tactical UAVs** (operating at low altitude) **and USVs** (at sea level).

Covering this wide spectrum of altitudes of operation shown and given the large set of available payloads and long endurance capabilities, I-SEAMORE will provide a complete, persistent and robust surveillance approach.





## 4 Main Pillars:



Employment and indirect tasking of multiple types of long-endurance Unmanned Assets (aerial and water surface)



Exploitation of heterogeneous data sources (including Copernicus Services)

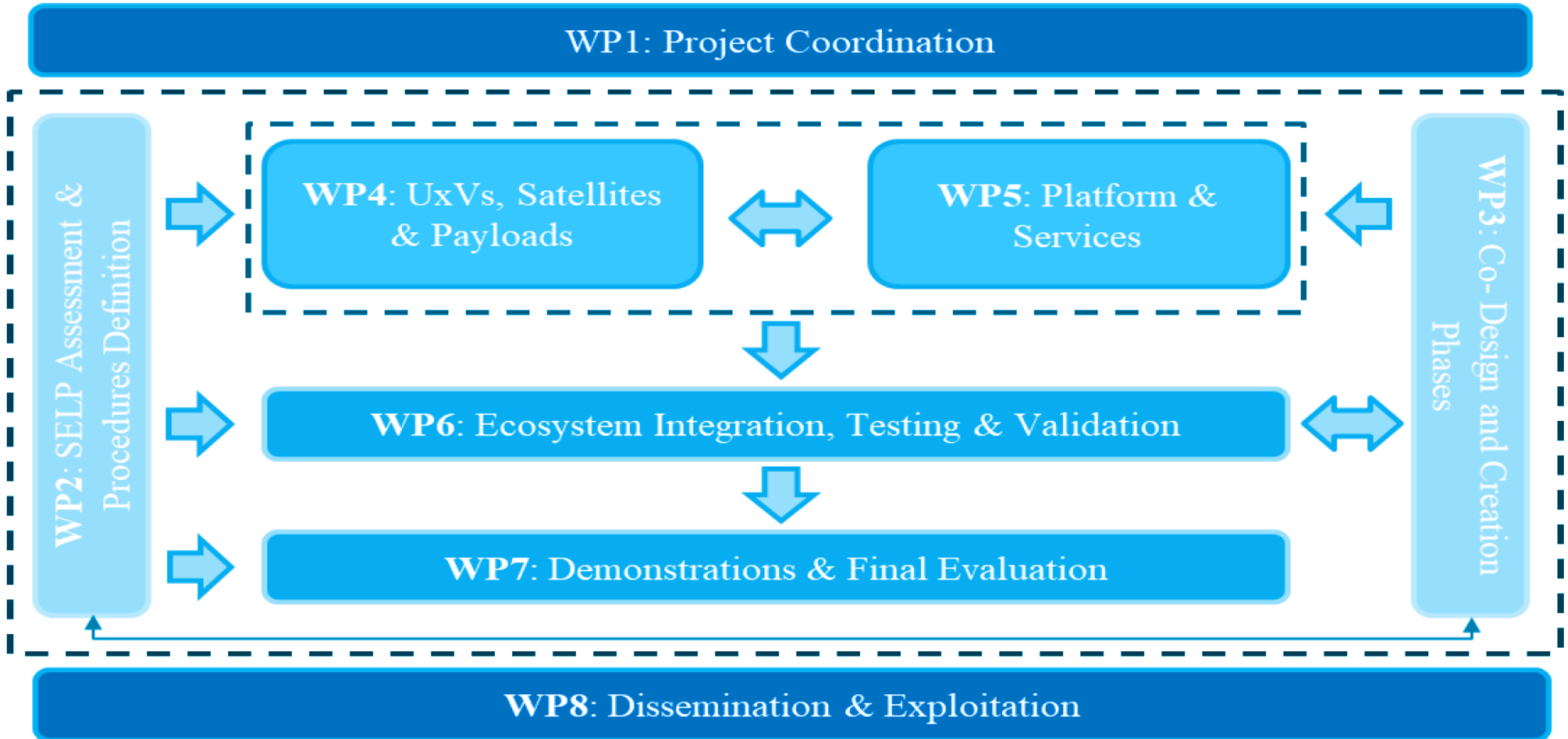


Artificial Intelligence (AI) and Big Data Analysis, for optimal decision making and successful mission execution of the desired mission



Interoperability within the Ecosystem and its interface with key existing external systems

# Work packages



# Methodology



## Definition & Co-Design Phase

Understanding end-user needs and challenges within the Maritime Surveillance domain, definition of I-SEAMORE Ecosystem Architecture & technical requirements.



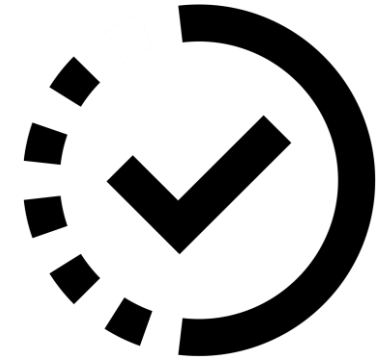
## Iterative Development Phase

Improvements on the unmanned assets to enhance their endurance, navigation, processing and detection capabilities.



## Integration, Testing, Validation

Regular testing cycles, feedback of end-users for validation purposes, supported by a dedicated validation and evaluation framework



## Demonstration in realistic environment

Demonstrations of realistic operational scenarios addressing different and complementary challenges from the end-users' perspective



# Impact



## Short-term

"Increased surveillance capability compared to the state of the art, including longer endurance, better reliability, lower maintenance requirements, longer permanence and wider coverage"

"Improved performance and/or safety, including better detection, classification and tracking capabilities, cyber and physical security, better cost-efficiency, better autonomy, lower visual and acoustic signatures"

"Improved multi-tasking capabilities to respond to a variety of needs and situations in the surveillance of border and maritime environment, including enhanced multi-authority collaboration"

## Long-term

"Improved security of EU land and air borders, as well as sea borders and maritime environment, infrastructures and activities, against accidents, natural disasters and security challenges such as illegal trafficking, piracy and potential terrorist attacks, cyber and hybrid threats"

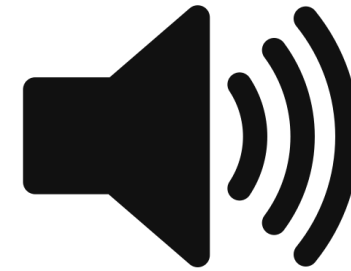
# Potential synergies



**Stakeholder engagement**



**Events and workshops**



**Joint communication**



**I-SEAMORE**

**Thank you!**



@I\_SEAMORE



/I-SEAMORE



I-SEAMORE



I-SEAMORE



<https://www.iseamore-project.eu/>

**EVIDEN**  
an atos business

**THALES**  
Building a future we can all trust

**exail**

**PRIMO CO UAV**

**HIPERSFERA**

**TERRASIGNA**

**INNOVATION**

**FGS**

**INNOV**

**TNO** innovation  
for life

**VORTEX**  
CoLab

**ISIG**

**Marinha**

**ES**

**GROUP**

**Home Office**



Co-funded by  
the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under the Grant Agreement 101073911.