



# Galileo HAS Enabled Maritime Receiver

## THE ISLET PROJECT

**ISLET: Galileo HAS enabled maritime receiver** is a project developed by a consortium led by **GMV Spain**, with **GMV Romania**, **SAAB** and **TRESCO** as partners. The aim of ISLET is to develop a Galileo HAS enabled receiver for Maritime and Inland Waterways (IWW) navigation. The project is co-funded by **EUSPA** under a grant in the context of the Fundamental Elements Scheme.

The ISLET receiver will implement two operational modes, both aided by Galileo HAS corrections:

- **Precise Point Positioning (PPP)** as a higher accuracy operational mode
- **Single Point Positioning (SPP)** as a cost-efficient high accuracy operational mode
- Additionally, the solution will also include two other technologies; **OSNMA** functionalities as an added security layer and the capability to use **multiple GNSS** constellations and frequencies



**SAAB**

**TRESCO**  
THE INLAND NAVIGATION SOLUTION

For more information:

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Co-funded by  
the European Union

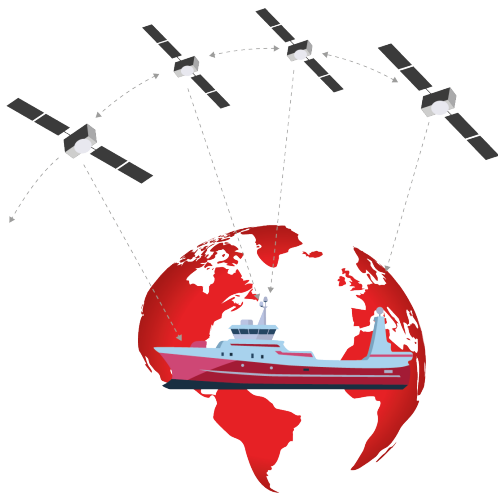
This action has received funding from the European Union under grant EUSPA/GRANT/01/2024



## Goals of the ISLET project

The primary goal of this project is to provide an accurate, reliable and competitive solution for Maritime and IWW navigation. This will be achieved, partially, by building on the experience and expertise gained during the ASGARD project, in which GMV and SAAB already developed a maritime receiver .

The ISLET receiver will achieve decimetric horizontal accuracy while constituting a close to market solution, with a TRL 7. The coverage of the solution will be almost global, using multiple GNSS constellations and frequencies, and Galileo's OSNMA functionality for added resilience.



All these capabilities will be tested in dedicated validation campaigns carried out for two target applications. An effort will also be made to devise an approach to bring the solution closer to market availability.

## Why a Galileo HAS solution

As part of the Galileo program, Galileo HAS (High Accuracy Service) has been developed to offer a free of charge global high-accuracy service that allows users to calculate accurate positioning. Both satellite-related data and atmospheric correction data are broadcasted through the E6-B band and the Internet.



Other precision PNT solutions are already available on the market, such as EGNOS, RTK or radio beacons DGPS, but they pose certain challenges in terms of coverage, performance and cost that can make Galileo HAS more attractive. The latter provides wider coverage and does not need additional infrastructure. These advantages are leveraged in the ISLET solution in the context of Maritime and Inland Waterways navigation.

## Target applications

After analyses of user needs, requirements, and technology status, ISLET solution target applications have been set to Hydrography (bathymetry survey and AtoN placement operations) in the maritime field, and narrow channels operations with some automation level in the IWW field. They will be covered by the PPP and SPP operational modes, respectively.



The project outcome will have the added advantage of being a complete shipborne integrated equipment, which facilitates its introduction to other type of vessels and applications with high accuracy needs.



The ISLET Project is backed by a number of stakeholders in the Maritime and IWW industry, which have declared an interest in our goals, especially given the fact that the final solution will be very close to the market. It will also be straightforward to implement into commercially available hardware.

For more information:

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