



**HELLENIC REPUBLIC**  
**Ministry of Digital Governance**  
General Secretariat for Telecommunications and Post

## REQUEST FOR INFORMATION (RFI)

### **Galileo Public Regulated Service (PRS) Receivers**

*Development and Establishment of Production Lines for PRS Receivers*

**Submission Deadline: 17/4/2026**

Responses to be submitted to: [ggtt@mindigital.gr](mailto:ggtt@mindigital.gr)

**IMPORTANT NOTICE:** All information requested and provided in the framework of this RFI will be used for information and planning purposes only. This Request does not constitute a solicitation or a commitment to procure, and does not bind the Ministry to any present or future procurement action, nor does it create any rights for respondents in relation to any present or future national, ESA, or EU procurement.

## 1. INTRODUCTION AND CONTEXT

### 1.1. Background

Space technology, data and services have become indispensable in the daily lives of Europeans and play an essential role in safeguarding many strategic interests. Focusing on secure Positioning, Navigation and Timing (PNT) from space, the dual-use nature of these systems and the maintenance of a high degree of security represent a key national priority, particularly in order to safeguard the interests of the European Union and its Member States.

Galileo is the European Union's flagship Global Navigation Satellite System (GNSS), managed and funded by the European Commission. Design of the programme began in 1998 under a joint agreement between the EU and ESA; the first satellite was launched in 2011 and initial services commenced in 2016. By December 2025, with its 14th launch, the constellation had reached 34 satellites in orbit. Galileo is currently the world's most accurate satellite navigation system, serving more than four billion users and devices. Application sectors range from smartphones sold in the European Single Market to rail, maritime, agriculture, financial services, and emergency-response infrastructure.

Galileo offers several service levels. Open Service signals are freely accessible but, like those of the US NAVSTAR/GPS, remain vulnerable to spoofing and jamming when transmitted without encryption. To address this limitation, Galileo provides the Public Regulated Service (PRS): a government-controlled, encrypted, and access-restricted signal designed to deliver robust PNT in environments where normal GNSS signals may be jammed, spoofed, or denied.

### 1.2. The Galileo Public Regulated Service (PRS)

The PRS is a controlled-access signal layer of Galileo providing high-integrity, encrypted PNT data to authorised users. Its key characteristics are as follows:

- ✓ Provided under government control exclusively to authorised PRS users holding valid cryptographic access keys.
- ✓ Encrypted signal structure that makes interception or replay of navigation data practically infeasible, thereby guaranteeing the reliability of Position, Navigation and Timing (PNT) data.



- ✓ Comparable in resilience to the US GPS Precise Positioning Service (PPS) with respect to jamming resistance and anti-spoofing, but subject to civilian political oversight and designed for dual-use (civil and military) applications.
- ✓ Accessible for use by EU institutions and Member States in accordance with Decision No 1104/2011/EU of the European Parliament and of the Council of 25 October 2011 (the PRS Decision), under the management of each Member State's designated Competent PRS Authority (CPA).

The concept of security in the PRS context is not limited to military applications. It extends to all applications in which accurate, continuous, high-integrity and highly available PNT data are essential for the protection of citizens, critical infrastructure and economic interests. Relevant sectors include air traffic management, maritime vessel tracking, rail signalling, energy grid synchronisation, financial transaction timestamping, law enforcement, border control, and emergency services.

### 1.3. PRS Receiver Architecture

A Galileo PRS receiver can integrate four functionally cooperating subsystems:

Subsystem	Function
<b>Anti-Jam Antenna</b>	Controlled Radiation Pattern Antenna (CRPA) providing spatial nulling/notching to suppress interference sources while maintaining signal acquisition.
<b>GNSS Signal Receiver</b>	Multi-constellation Signal-In-Space (SIS) receiver compatible with Galileo PRS and OS, GPS, GLONASS, and BeiDou signals.
<b>Crypto Module</b>	Security device managing authorised user credentials, access/decryption key handling, and PRS access requests in accordance with applicable security accreditation requirements.
<b>Processing Unit</b>	Computational subsystem for signal decoding and processing to derive position fixes, precise timing outputs, and navigation services.

### 1.4. Regulatory Framework

Access to the PRS by EU institutions and Member States is governed by Decision No 1104/2011/EU of the European Parliament and of the Council of 25 October 2011. Each Member State administers PRS access through its designated Competent PRS Authority (CPA), which is responsible for the management and oversight of end users, access keys, and connected devices, as well as for the confidential distribution of classified information necessary for PRS receiver development in accordance with the minimum common standards established by that Decision, in coordination with the Security Accreditation Board (SAB). The development or manufacture of PRS receivers or PRS security modules by companies established in Greece is subject to prior authorisation by the SAB of the Member States, following a recommendation from the competent service of the General Secretariat for Telecommunications and Post in coordination with the Ministry of National Defence. The European policy framework for CPAs also seeks, through investment programmes such as Horizon Europe and EDIDP, to promote PRS adoption across Member States and to support the participation of Galileo in the growing market for secure GNSS services.

## 2. PURPOSE OF THIS RFI

### 2.1. Mission Statement

***To develop, manufacture and supply Galileo PRS-compliant receivers for authorised civil and military users, by establishing domestic research, design, integration and production lines capable of delivering hundreds of units across multiple form factors and use cases, while promoting national industrial development and the utilisation of Greek assets, and ensuring full compliance with the applicable European security and regulatory framework.***



## 2.2. Objectives

The present RFI is issued by the General Secretariat for Telecommunications and Post of the Ministry of Digital Governance. It seeks to map domestic industrial capability and to identify entities with the technical expertise and organisational capacity to contribute to the research, design, prototype development and series production of Galileo PRS-compatible receivers, in accordance with the regulatory framework of the European Commission, the European Union Agency for the Space Programme (EUSPA), and the European Space Agency (ESA). Specifically, the RFI aims to:

- ✓ Identify Greek companies with relevant expertise in GNSS receiver design, secure hardware development, cryptographic module integration, or antenna engineering.
- ✓ Assess the current state of national industrial readiness for PRS receiver development and production.
- ✓ Gather input to inform a national technology roadmap and to support engagement with ESA, EUSPA, and the European Commission Directorate-General for Defence Industry and Space (DG DEFIS).
- ✓ Lay the groundwork for a follow-on industry workshop with key end-users and European agencies to align on technical specifications, security accreditation requirements, and funding pathways.

## 2.3. Scope

This RFI is open primarily to companies established in Greece with relevant technical experience. Respondents need not be active in all technology domains listed below; partial capability profiles are welcome. Responses will be shared with other Ministries as appropriate.

## 3. MISSION REQUIREMENTS

### 3.1. Main Requirements

The following requirements are non-exhaustive and are listed in order of priority. Where multiple options are presented within a requirement, they are separated by “/” and also listed in order of priority. A combinatorial subset of the design specifications within each requirement may satisfy compliance with the respective requirement.

Req. ID	Requirement
REQ-01	Receivers shall be fully compliant with the Galileo PRS Signal-In-Space (SIS) Interface Control Document (ICD) and all applicable EUSPA and European Commission security and technical specifications for PRS receiver development and accreditation.
REQ-02	Receivers shall be multi-constellation, capable of processing signals from Galileo (PRS and Open Service), GPS, GLONASS, and BeiDou, providing multi-frequency (E1/E6/L1/L2/L5) operation to maximise availability and accuracy.
REQ-03	Receivers shall incorporate an integrated crypto module (security device) meeting the applicable classified minimum common standards for PRS access, key management, and user authentication, as defined under Decision No 1104/2011/EU and the related SAB specifications. The crypto module shall be designed or adapted to meet national security accreditation requirements. GPS M-Code shall also be considered as part of a synergistic approach.
REQ-04	Receivers shall integrate Controlled Radiation Pattern Antenna (CRPA) technology providing adaptive spatial nulling and notching for jamming resistance, along with signal authentication and anti-spoofing mechanisms, ensuring robust PNT performance in contested or degraded signal environments.
REQ-05	A mix of form factors shall be addressed, including fixed/installed, vehicular (land, maritime, airborne), man-portable, and board-level OEM module variants, with optimised Size, Weight, Power and Cost (SWaP-C) for each use case.
REQ-06	Receivers shall provide precise timing outputs (1 PPS and frequency reference) meeting the requirements of critical infrastructure sectors such as telecommunications, energy, financial services, and transport, in addition to navigation outputs (position fix, velocity, heading).



<b>REQ-07</b>	Receivers shall support standard output interfaces including NMEA 0183/2000, binary proprietary protocols, 1 PPS, RS-232/422, Ethernet, and USB, and shall be compatible with standard network management and integration architectures.
<b>REQ-08</b>	Receivers shall comply with applicable EMC, environmental (MIL-STD-810 or equivalent), and safety standards appropriate to their intended operational environment. Military/government variants shall additionally comply with relevant STANAG standards.
<b>REQ-09</b>	Respondents shall demonstrate adequate manufacturing capability and shall indicate the means to establish domestic production lines capable of delivering hundreds of PRS receiver units, covering research and development, prototype integration, environmental qualification testing, and series production.
<b>REQ-10</b>	Respondents shall describe their capability or intent to achieve and maintain the security accreditations required under Decision No 1104/2011/EU and national implementing regulations, including facility security clearances and personnel vetting.

### 3.2. National Technology Development

The development of technology elements relevant to PRS receivers by national industry is strongly encouraged. Areas of interest include, but are not limited to:

- ✓ GNSS baseband processing ASIC/FPGA designs compliant with Galileo PRS and multi-constellation signal processing.
- ✓ Cryptographic module development and integration meeting applicable classified security standards.
- ✓ Controlled Radiation Pattern Antenna (CRPA) and related analogue/digital beamforming and adaptive nulling technology.
- ✓ Printed Circuit Boards (PCBs) and mechanical enclosures for GNSS receiver applications.
- ✓ Software-defined radio (SDR) platforms adaptable to PRS receiver prototyping and testing.
- ✓ Test and verification facilities for GNSS signal simulation, jamming/spoofing testing, and environmental qualification.

Industry is encouraged to propose capabilities and technologies beyond those currently available commercially, with a view to achieving genuine national technological sovereignty in secure PNT. Moreover, industry is encouraged to propose receivers employing both Galileo PRS and GPS M-Code systems, i.e., dual-mode receivers that process M-Code + PRS simultaneously for resilience in electronic warfare environments.

### 4. RISK SHARING AND SYNERGIES

The project carries risks associated with the complexity of security accreditation, access to classified PRS specifications, cryptographic module development, and the timely establishment of domestic production capability. Proposals shall devote a dedicated section to an analysis of these risks, to the mitigating actions that the company will undertake, and to any actions expected from the General Secretariat for Telecommunications and Post.

Should a company wish to enter into a partnership with any national or foreign entity for the execution of the project, or to engage ESA or EUSPA expertise, this should be described in a dedicated section of the submission.

### 5. INDUSTRIAL ORGANISATION

Submissions shall provide information on the companies and their capabilities. Particularly, capabilities identified for each element of PRS receiver development, including existing products, ongoing developments or technology roadmaps should be highlighted. The promotion of national industry development and the utilisation of national assets (e.g. laboratories, test facilities, secure infrastructure) shall be clearly highlighted. The percentage of Greek industrial engagement shall be explicitly stated and is expected to exceed 50%. It is underlined that the Ministry of Digital Governance may impose additional conditions in the future regarding the companies responsible for the development and production of PRS receivers, including requirements relating to security clearances, facility accreditation, and supply chain integrity. This element will play an important role in decisions taken on the implementation of any subsequent activity.



## 6. SUBMISSION OF RESPONSES

### 6.1. General

Responses to this RFI shall be submitted to [ggtt@mindigital.gr](mailto:ggtt@mindigital.gr) no later than 17/4/2026.

Respondents are requested to use standard templates. Proprietary or classified information submitted in response to this RFI shall be clearly marked as such and handled in accordance with applicable national and EU security regulations.

Responses shall not exceed 20 pages. Additional information on the company or on references may be provided as an annex. Proposals will be shared with other Ministries as appropriate.

## REFERENCES AND FURTHER INFORMATION

[1] Decision No 1104/2011/EU of the European Parliament and of the Council of 25 October 2011 on the rules for access to the public regulated service provided by the global navigation satellite system established under the Galileo programme.

[2] EU Space Programme Regulation (EU) 2021/696.

[3] EUSPA — Galileo Public Regulated Service Overview: <https://www.euspa.europa.eu/european-space/galileo/services/public-regulated-service>

[4] GMV GALILEO PRS RECEIVER <https://www.gmv.com/en-es/sectors/space#galileo-public-regulated-service>

[5] Fraunhofer IIS — Galileo PRS Technology: <https://www.iis.fraunhofer.de/en/ff/lv/lok/gnss/galileoprs.html>

[6] European Commission — EDIDP GEODE Programme: [https://ec.europa.eu/commission/presscorner/api/files/attachment/868332/EDIDP\\_GEODE.pdf](https://ec.europa.eu/commission/presscorner/api/files/attachment/868332/EDIDP_GEODE.pdf)

[7] Leonardo S.p.A. — PRS Receiver First European Certification (March 2025): <https://www.leonardo.com/en/press-release-detail/-/detail/26-03-2025-leonardo-s-prs-receiver-achieves-first-certification-for-defence-and-emergencies-throughout-europe>

[8] Thales Group — TopStar Galileo OS and PRS Modules: <https://www.thalesgroup.com/en/markets/aerospace/navigation-solutions/topstar-galileo-os-and-prs-modules-resilient-operations>