

URGENT - Greek space systems developer is looking for final consortium partner for European Space Agency (ESA) Tender Consortium for ESA AO/1-12911/25/NLRK - RF (Radio Frequency) Design Expertise for the Microwave Generator and Testing Support Needed

Summary

Profile type	Company's country	POD reference
Research & Development Request	Greece	RDRGR20250911021
Profile status	Type of partnership	Targeted countries
PUBLISHED	Research and development cooperation agreement	<ul style="list-style-type: none">• Hungary• Czechia• Poland• Norway• Romania
Contact Person	Term of validity	Last update
Enrico FRANZIN	11 Sep 2025 11 Sep 2026	15 Sep 2025

General Information

Short summary

Greek company that specializes in space systems and tech. dev., is seeking a technical partner with expertise in RF design for microwave generators and testing support. The collaboration will target the ESA Invitation to Tender "Low-Power, High-Thrust Electric Propulsion System for Space Transportation – EXPRO Plus" (ESA AO/1-12911/25/NL/RK). The partner will contribute to the design and testing of the microwave generator required in the propulsion sub-system, ensuring compliance with ESA specs.

Full description

The Greek company is coordinating a consortium preparing a proposal for the ESA tender "Low-Power, High-Thrust Electric Propulsion System for Space Transportation". The objective is to develop a microwave electrothermal thruster (MET) system, including thruster, microwave generator, and fluidic management system.

The Greek company will act as sub-contractor for the thermos-structural analysis process of the system's components and an Italian company will act as the prime contractor undertaking the design process of the engine, the operating performance analysis and the technical and management coordination of the consortium. To complete the consortium, we are seeking a partner company or institute with advanced RF design expertise, specifically in:

- Microwave generator design (breadboard development, efficiency optimization, EMI/EMC considerations).
 - Testing support: participation in coupling and endurance tests in vacuum, measurement of thrust, Isp, and generator efficiency.
 - System integration input: interface alignment with thruster and fluidic management subsystems.
- The role of the partner will be crucial for achieving the ESA objectives of demonstrating >100 mN thrust and >600 s Isp at <1 kW input power.

URGENT - Submission deadline 1/10/25

Advantages and innovations

- Participation in an ESA-funded development of novel propulsion technology (raising TRL at least at 4 level).
- Strategic exposure to future European in-space transportation systems.
- Opportunity to integrate and validate RF design expertise within a propulsion application of direct market relevance.
- Collaboration with a subsidiary of a larger multinational group and ESA.

Technical specification or expertise sought

The Greek company seeks a European partner (SME, mid-size company, RTO, or university) with:

- Demonstrated RF/microwave engineering capability.
- Laboratory facilities for breadboard development and vacuum test participation.
- Willingness to act as subcontractor under an ESA EXPRO+ contract.

The partner should provide:

- Proven experience in RF/microwave system design, ideally in space or defence applications.
- Capability to design and manufacture a microwave generator breadboard.
- Expertise in RF testing in vacuum conditions, including thrust stand interfaces, EMI/EMC validation, and efficiency measurements.
- Familiarity with ESA standards (ECSS-E-ST-10-03C Testing, ECSS-E-ST-35 propulsion requirements) is desirable.

Stage of development

Under development

Sustainable Development goals

- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 13: Climate Action**
- **Goal 15: Life on Land**
- **Goal 14: Life Below Water**
- **Goal 11: Sustainable Cities and Communities**

IPR Status

Secret know-how

IPR Notes

IPR Notes

Partner Sought

Expected role of the partner

- Act as subcontractor within the Italian company-led consortium.
- Lead design and delivery of the microwave generator unit (breadboard).
- Support integration, coupling, and endurance tests.
- Provide technical documentation and contribute to ESA reviews (Requirements Review, Design Review, Coupling/Endurance Test Reviews).

Type of partnership

Research and development cooperation agreement

Type and size of the partner

- **SME ≤ 10**
- **SME 11-49**
- **SME 50 - 249**
- **R&D Institution**
- **Big company**
- **Other**
- **University**

Call Details

Framework program

Space

Call title and identifier

ESA EXPRESS PROCUREMENT PLUS (EXPRO+) / OPEN COMPETITIVE

- Invitation to Tender for "Low-Power, High-Thrust Electric Propulsion System for Space Transportation - Expro Plus"

- Ref: ESA AO/1-12911/25/NLRK

Submission and evaluation scheme

Anticipated project budget

200.000€ - 500.000€

Coordinator required

No

Deadline for EoI

30 Sep 2025

Deadline of the call

1 Oct 2025

Project duration in weeks

72

Web link to the call

Project title and acronym

Dissemination

Technology keywords

- **01002010 - Printed circuits and integrated circuits**
- **01002003 - Electronic engineering**
- **01006008 - Satellite Technology/Positioning/Communication in GPS**
- **01002005 - High Frequency Technology, Microwaves**

Market keywords

- **01005003 - Microwave service facilities**
- **01005004 - Microwave and satellite components**
- **03004002 - Components testing equipment**
- **01005005 - Other satellite/microwave**

Targeted countries

- Hungary
- Czechia
- Poland
- Norway
- Romania

Sector groups involved