




ANNOUNCEMENT OF OPPORTUNITY

MIURA 5 SPARK Program

Launch of Satellites on MIURA 5 Demonstration Flights

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P E R A S P E R A A D A S T R A

INDEX OF CONTENT

1.	Scope of the Opportunity.....	4
2.	Introduction	4
2.1.	About PLD Space	4
2.2.	About MIURA 5 Micro Launcher	6
3.	Requirements	7
3.1.	Type of Satellite requirement.....	7
3.2.	Orbital requirement	7
4.	Eligibility	7
5.	Application Process.....	8
5.1.	Process Steps	8
5.2.	Key Dates & Submission Deadlines.....	9
5.3.	Selection criteria	9
5.3.1	Impact.....	9
5.3.2	Technical Considerations	9
5.3.3	Programmatic Considerations	10
5.3.4	Commercial Considerations	10
6.	Costs.....	10
7.	Optional Marketing Packages	10
8.	Disclaimer of Liability.....	10
9.	Privacy Policy.....	11
10.	FAQ.....	11

ACRONYMS

AEPD	Agencia Española de Protección de Datos
CNES	Centre National d'Études Spatiales
EU	European Union
GDPR	General Data Protection Regulation
ITU	International Telecommunication Union
LOX	Liquid Oxygen
LSA	Launch Service Agreement
LTAN	Local Time of the Ascending Node
NATO	North Atlantic Treaty Organisation
NDA	Non-Disclosure Agreement
PLD Space	Payload Aerospace, S.L.
RP	Rocket Propellant
SSO	Sun Synchronous Orbit
TBD	To Be Determined

1. SCOPE OF THE OPPORTUNITY

The [MIURA 5 SPARK Program](#) seeks to select worldwide satellites for the launch opportunities presented by MIURA 5's first Demonstration Flights. In particular, this refers to MIURA 5 maiden launch, scheduled for Q4 2025, and MIURA 5 second Demonstration Flight, planned for Q1 2026. The SPARK Program is open to all institutional, educational and commercial satellites worldwide. Further details regarding the launch opportunities and proposal submission requirements are provided in the announcement.

Selected satellites will receive standard launch services at no charge. Any extra or Non-Standard Services must be arranged with PLD Space, and associated costs borne by the selected candidates.

2. INTRODUCTION

2.1. About PLD Space

[PLD Space](#) is a pioneering Spanish aerospace company, widely recognized in Europe for its development of reusable rockets. The realization of the MIURA launch vehicle family has earned the company sector prestige and has served to position Spain among the select few nations with the sovereign capability to deploy small satellites into space.

Founded in 2011 by Raúl Torres and Raúl Verdú with the objective of enhancing space accessibility, the company is headquartered in Elche, Spain, with technical facilities in Teruel, Spain, and Kourou, French Guiana. With an investment exceeding 120 million euros and a workforce of over 200 professionals, PLD Space has established itself as a formidable force in the space sector.

In October 2023, the company achieved a historic milestone with the successful launch of MIURA 1, marking the first private European rocket launch. This momentous event underscores PLD Space's technological prowess and solidifies its position as a frontrunner in the global space arena, contributing to the advancement of national and European strategic capabilities.



Figure 1 MIURA 1 taking-off in its maiden flight (7th October 2023)

P E R A S P E R A A D A S T R A

2.2. About MIURA 5 Micro Launcher

MIURA 5 is an orbital launcher with a two-stage configuration and a height of 35.7 metres that is designed, built and operated by PLD Space. With the capacity to place payloads of up to 540 kg in a 500 km sun-synchronous orbit (SSO), MIURA 5 operates from the world-renowned Kourou spaceport in French Guiana.

MIURA 5 contributes to ultra-green and clean technology practices with measures such as the recovery of its first stage, which is retrieved from the ocean and reused for subsequent missions.

In addition, PLD Space uses bio-kerosene (bio RP-1) and liquid oxygen (LOX) in its in-house designed TEPREL-C engines, thereby contributing to a reduction in carbon emissions.



Figure 2 MIURA 5 configuration

3. REQUIREMENTS

3.1. Type of Satellite requirement

The maximum aggregated mass of the satellites eligible under the SPARK Program is 450 kg per flight. This includes small satellites meeting the mass requirement and fitting into the volume under the MIURA 5 fairing, as described in the latest MIURA 5 Payload User Guide (to be shared with pre-selected candidates – see Section 5).

3.2. Orbital requirement

The following reference orbits shall be targeted:

	Demo 1 (Maiden Flight)	Demo 2
Launch Window	Q4 2025	Q1 2026
Altitude	500 km	
Eccentricity	0	
LTAN	TBD	
Inclination	SSO	

Table 1 Mission Parameters

All mission variables as described in the above table are subject to change and will be finalized in the Launch Service Agreement signed by PLD Space and the selected candidates. Candidates are requested to indicate their flexibility with respect to the above parameters. Additionally, satellites may be re-distributed between the first and second flights for mission optimization, although candidates' preferences will be considered. Final LTANs will be determined once all satellites have been selected and Demonstration Flight missions defined.

4. ELIGIBILITY

This SPARK Program is open to all institutional, educational and commercial entities worldwide that seek to procure launch services as per the requirements presented in Section 3. Such entities may include, but are not limited to:

- Institutional (eg. Government agencies)
- Educational (eg. High schools, universities and public research institutions)
- Commercial (eg. Private companies, start-ups, SMEs, large organizations)

Priority shall be given to those entities whose country of origin is Spain, followed by EU member states, NATO member states and Major Non-NATO Ally states. The question as to whether an enterprise should be considered to belong to a specific country shall be settled in the light of the following criteria: location of the enterprise's registered office, decision-making centres and research centres, and territory in which the work is to be carried out. In doubtful cases, PLD Space's legal counsel shall decide whether an enterprise shall be considered to belong to a specific country or not.

Candidates have the option to submit multiple satellites or collaborate with other eligible entities (eg. student teams). In this scenario, they must appoint a consortium manager as the sole negotiation representative and cover all costs associated with the consortium's activities.

Note that Commercial entities partnering or indicating a willingness to partner with Schools shall be prioritised.

Entities are ineligible to participate in the SPARK Program under the following circumstances:

1. Country of origin under EU sanctions.
2. Legal incapacity to enter into contracts.
3. Bankruptcy, insolvency, or similar situations.
4. Conviction for professional misconduct.
5. Grave professional misconduct impacting credibility.
6. Non-compliance with tax and social security obligations.
7. Involvement in fraud, corruption, money laundering, or other serious offenses.
8. Suspension by any public agency for misrepresentation or misconduct in procurement processes.

5. APPLICATION PROCESS

5.1. Process Steps

The steps in the application process are as follows:

1. PLD Space publishes this announcement of the SPARK Program
2. The candidate submits a **Preliminary Payload Questionnaire** with high-level mission requirements on the PLD Space SPARK Program Platform, indicating an interest in the opportunity and an intent to complete the application process. **The form takes ~20 mins to complete.**
3. PLD Space pre-selects candidate missions.
4. Q&A Session: Virtual session open to pre-selected candidates only. Details shared via website link available at a later date to relevant parties.
5. Candidate missions making it through the pre-selection process will be asked to sign an NDA; thereafter, PLD Space will share the latest version of the MIURA 5 Payload User Guide which includes maximum expected environments.
6. The candidate submits their final application which must include the **Full Payload Questionnaire** (this form is similar to the Preliminary Payload Questionnaire, but includes more mandatory fields) and a completed **Statement of Compliance**. PLD Space will then confirm receipt of the necessary documents.
7. School teams complete the Submission Form to the best of their knowledge to qualify them for consideration and partnership with a Commercial entity; only a Final Submission is required (i.e., there shall be no pre-selection process for Schools).
8. PLD Space will perform the final selection of satellites following a feasibility analysis based on the information provided by the candidate. The proposed missions shall be evaluated against technical, safety and legal requirements. PLD Space will also review any requested deviations identified. Further information may be requested from the candidate which might necessitate a virtual, telephonic or face-to-face interview. By the end of this step, the combination of satellite aggregates would be optimized, the final mission parameters established and associated costs identified. Selected "candidates" shall be considered to be "customers".

9. Commercial entities indicating an interest in partnering with Schools shall be offered the opportunity to pair up accordingly during a Virtual Session hosted by PLD Space (link to be made available to relevant parties at a later date).
10. Following the final selection, a Launch Service Agreement (LSA) will be signed by both PLD Space and each satellite customer; the contents of this LSA shall include the financial contribution, if any, to be paid by the customer.

Applications (Preliminary Payload Questionnaires, Full Payload Questionnaires and Statements of Compliance), as well as any other enquiries are to be submitted to spark@pldspace.com.

5.2. Key Dates & Submission Deadlines

1.	Announcement of SPARK Program Published	June 2024
2.	Preliminary Submission (<i>Preliminary Payload Questionnaire</i>)	30 September 2024
3.	Pre-Selection Notification	7 October 2024
4.	Q&A Session	10 October 2024
5.	NDA Signature and Issuance of MIURA 5 Payload User Guide	15 October 2024
6.	Final Application Submission (<i>Full Payload Questionnaire & Statement of Compliance</i>)	15 November 2024
7.	Schools Final Submission	15 November 2024
8.	Candidate Final Selection	30 November 2024
9.	Matchmaking Session	10 December 2024
10.	Signing of Launch Service Agreements	30 Dec 2024

Table 2 Overall Schedule

5.3. Selection criteria

Selection criteria are as follows:

5.3.1 Impact

- Country of origin, with first priority given to Spanish entities, followed by EU member states, NATO member states and Major Non-NATO Ally states
- Type of entity, with first priority given to candidates (including consortia) comprising student teams

5.3.2 Technical Considerations

- Compliance with payload mass requirements
- Orbit Flexibility
- Compliance with the MIURA 5 Payload User Guide (to be evaluated following the Final Application)
- Compliance with relevant technical and safety standards (to be evaluated following completion of the Statement of Compliance as part of the Final Application)
- Compatibility with other satellites selected (to be evaluated following the Final Application)

5.3.3 Programmatic Considerations

- Launch window
- Schedule flexibility
- Satellite development plan, status (including ITU registration progress)
- Satellite and associated launch campaign operational risks

5.3.4 Commercial Considerations

- Financial contribution proposed by candidate towards launch
- Attractiveness of the proposed mission (potential for future missions, cooperation with other parties, transfer potential, etc.)
- Purchase of Optional Marketing Package

6. COSTS

Each candidate must independently cover the costs associated with meeting all technical requirements and any additional testing deemed necessary to ensure the safety of the corresponding satellite.

PLD Space shall commit to covering expenses related to mission management, accommodation on the MIURA 5 launcher, propellant handling, launch-site transport, storage and handling costs, as appropriate, as well as any other operational costs associated with Standard Service provision as outlined in the MIURA 5 Payload User Guide (to be shared with pre-selected candidates).

However, in order to increase their competitiveness and commitment, candidates are encouraged to propose an additional financial contribution towards the mission launch service.

Additionally, the negotiation of Non-Standard Services (as described in the MIURA 5 Payload User Guide) and their costs will take place between the customer and PLD Space. These expenses will be the responsibility of the customer.

7. OPTIONAL MARKETING PACKAGES

Final projects presented by commercial clients can benefit from branding and product activation opportunities, including end-to-end brand visibility, branded content during launch campaign live streaming, PR and social media activations.

8. DISCLAIMER OF LIABILITY

No claim against PLD Space shall arise at any time during the course of the abovementioned process. This program is limited to the selection of potential customers providing institutional, educational and commercial satellites for the planned Demonstration Flights. It may eventually result in the signing of Launch Service Agreements (LSA), which would further describe the terms of the Demonstration Flight opportunity. If awarded, following signing of the LSA by both parties, a Standard Service flight opportunity on board a MIURA 5 Demonstration Flights will be offered free of charge by PLD Space. However, the cost of any additional, Non-Standard Services must be borne by the satellite customer. The LSA shall be between PLD Space and the satellite customer.

Publishing this announcement does not obligate PLD Space to select any mission, nor does it generate entitlements or claims from any candidate who has responded to this opportunity.

9. PRIVACY POLICY

PLD Space will comply with data protection regulations (European Data Protection Regulation) when processing personal data and when passing on this data and will ensure this compliance by means of technical and organizational measures in accordance with the latest state of the art. Data will be processed in accordance with Art. 13 General Data Protection Regulation (GDPR).

Your data will be shared on a strict need-to-know basis with experts within PLD Space. Any transfer of data to a third party shall not occur without the corresponding authorization of the data subject. This data shall not be used for any other purpose other than to facilitate the selection of satellite customers for the launch opportunity and subsequently, execution of the mission.

The above data will be stored for a period of three years. You have the right to request information about the data stored by us at any time.

If data is incorrect or no longer up to date, you have the right to request its correction in accordance with Art. 16 GDPR. You also have the right to request the deletion of data pursuant to Art. 17 GDPR or the restriction of processing, Art. 18 GDPR. If you have provided data and the processing by means of automated procedures is based on your consent or on a contract, you have the right of data portability.

You may object to the processing of data pursuant to Article 21 GDPR if you later decide you do not wish to participate. However, without the provision of the data, participation in the abovementioned launch event is not possible. Furthermore, you have the possibility to contact the responsible data protection authority, Agencia Española de Protección de Datos (AEPD), and to lodge a complaint if necessary.

In case of uncertainty, the English version of the announcement shall prevail over the Spanish version.

10. FAQ

1. What is the objective of the SPARK Program?

Answer: The SPARK Program seeks to select satellites for launch opportunities on MIURA 5's first two Demonstration Flights, scheduled for Q4 2025 and Q1 2026, respectively.

2. What is MIURA 5, and what are its capabilities?

Answer: MIURA 5 is an orbital launcher designed by PLD Space. It has a two-stage configuration, a height of 35.7 meters, and can place payloads up to 540 kg into a 500 km sun-synchronous orbit (SSO). It uses eco-friendly technologies, including bio-kerosene and liquid oxygen.

3. Who is eligible to apply for this launch opportunity?

Answer: The Spark Program is open to all institutional, educational, and commercial entities globally, including government agencies, universities, research institutions, private companies, start-ups, SMEs, and large organizations.

4. What are the submission deadlines?

Answer:

- Preliminary Submission (for all entities except Schools): September 30, 2024
- Final Application Submission (for all entities): November 15, 2024
- Candidate Final Selection: November 30, 2024

5. What is the Matchmaking Session?

Answer: Primary and High School teams looking to fly experiments on-board MIURA 5 shall be paired with commercial satellite platform providers during a Matchmaking Session to take place once the final candidates have been selected. The submission process for Schools shall be different to other entities, with only a single submission required.

6. What types of satellites are eligible for this opportunity?

Answer: Eligible satellites include small satellites with a total mass not exceeding 450 kg per flight. The satellites must fit within the MIURA 5 fairing.

7. What costs will PLD Space cover for the selected satellites?

Answer: PLD Space will cover mission management, accommodation on the MIURA 5 launcher, propellant handling, launch-site transport, storage, handling costs, and other operational costs associated with Standard Services.

8. Are there any costs that candidates need to bear?

Answer: Yes, candidates must cover the costs for meeting technical requirements and any additional testing for satellite safety. Candidates are also encouraged to propose an additional financial contribution towards the mission launch service.

9. Can entities submit multiple satellites or collaborate with others?

Answer: Yes, entities can submit multiple satellites or collaborate with other eligible entities, such as student teams. In fact, commercial entities indicating an interest in collaborating with Schools shall be favoured.

10. What criteria will be used to select the satellites?

Answer: Selection criteria include the country of origin, type of entity (with Schools and commercial entities willing to partner with Schools given strong preference), payload mass requirements, orbit flexibility, compliance with technical standards, launch window, schedule flexibility, satellite development status, operational risks, financial contribution, and mission attractiveness.