



**United Nations/Exolaunch Cooperation Programme
on CubeSat Launch and Deployment using Exolaunch EXOpod
First Round**

Announcement of Opportunity

26 June 2024

- 1. Thematic Area:** Access to Space for All – Satellite Development Track
- 2. Title:** United Nations/Exolaunch Cooperation Programme on CubeSat Launch and Deployment using the Exolaunch EXOpod
- 3. Subject:** Realization of a CubeSat deployment opportunity using the Exolaunch EXOpod.
- 4. Implementation:** United Nations Office for Outer Space Affairs (UNOOSA) and Exolaunch GmbH (Exolaunch).
- 5. Duration:** May 2024 – December 2027
- 6. Deadline for Applications:** Applicants must submit fully completed application forms to UNOOSA by **31 December 2024 23:59 Central European Time (CET, UTC+1)**.
- 7. Expected Profile of Applicants:** Government organisations, research institutions, universities, and other public and non-for-profit organisations with priority given to developing countries and emerging space nations.
- 8. Number of Opportunities for Deploying CubeSat:** UNOOSA and Exolaunch will select a maximum of two (2) entities for a launch opportunity using the EXOpod cubesat deployer. Each Selected Entity will develop one (1) 1U-3U CubeSat to be deployed by Exolaunch in Low Earth Orbit (LEO).
- 9. Language of the Programme:** English
- 10. Brief Programme Description:**

UNOOSA promotes international cooperation and capacity-building in the areas of space technology and its applications, especially in developing countries, within the framework of the United Nations Programme on Space Applications. In 2018, UNOOSA launched the Access to Space for All initiative, which enables communities from all over the world to use and benefit from space technologies and applications.

Exolaunch, headquartered in Berlin, Germany with an additional office in Denver, Colorado, USA, is a global leader in launch mission integration and deployment technologies. With over a decade of flight heritage and hundreds of satellites launched across more than two dozen missions, Exolaunch leverages industry insight to tailor turnkey solutions that meet customer needs and respond to market trends. Exolaunch fulfills launch contracts for industry leaders, the world's most innovative start-ups, research institutions, government organizations, and international space agencies. The company develops and

manufactures its own flight-proven and industry-leading small satellite separation systems, with the fastest-growing heritage on the market. Exolaunch promotes safe, sustainable, and responsible use of space and is committed to making space accessible for all.

In line with the mission and objectives of the Access to Space for All initiative and Exolaunch's demonstrated commitment to promoting space science and technology in developing countries, Exolaunch aims to help the developing countries to engage in space activities and contribute to national capacity development in spacecraft engineering and design, as well as inspire the next generation of entrepreneurs, scientists, and engineers.

Both UNOOSA and Exolaunch are pleased to announce jointly a cooperation programme that provides for orbital deployment of a maximum of two (2) 1U-3U CubeSats in the framework of the Access to Space for All initiative of the United Nations.

11. Scope of Opportunity for Deploying the CubeSats

Through this Announcement of Opportunity, UNOOSA and Exolaunch undertake to make available, free of charge, the launch of a maximum of two (2) 1U-3U CubeSats in one competition round to entities selected by the UN as part of the Access to Space for All Initiative of UNOOSA. Exolaunch shall provide free of charge one slot in the EXOpod CubeSat deployer and launch services for each of the selected CubeSats, as well as related technical support and coordination activities for the Selected Entities. The Selected Entity shall bear the costs of the activities identified under the Section 16 of this Announcement of Opportunity. This cooperation programme is subject to the availability of funds and resources of UNOOSA and Exolaunch.

12. Program Schedule and Milestone

(A) Programme Schedule

Application Submission	31 December 2024
Selection and notification of shortlisted applicants	28 February 2025
Updated application submission	31 May 2025
Selection and notification of winner(s)	30 June 2025
Preparation period, including technical coordination	Approximately 15-18 months (subject to the progress of the CubeSat development)
Safety Review and Compatibility Review	To be determined and arranged by Exolaunch, according to the progress of the CubeSat development.
Deployment	Expected in 2026-2027, subject to the launch opportunity and progress of the CubeSat development.
Reporting to UNOOSA and Exolaunch	<ul style="list-style-type: none"> - A report on the operational results no later than 3 months after the deployment of the CubeSat. - A report on the CubeSat mission, related activities, and any publications about the CubeSat mission every 6 months. - A Final report on the results of the mission no later than 3 months after completion of the CubeSat mission.

It must be noted that:

- The application process consists of two stages. In the first stage, the entities shall describe the cost elements of the CubeSat and shortlisted applicants shall be selected and notified. In the second stage, the shortlisted entities will have 3 months to submit the final application proposals and provide a detailed explanation of how the budget will be acquired.
- UNOOSA and Exolaunch may ask for further information on the applications.
- The number of opportunities and the launch and deployment schedule may change due to constraints on the launch manifest managed by Exolaunch or for any other reason.
- If the development of the CubeSat does not meet the Programme Schedule within the preparation period, Exolaunch may terminate the provision of the deployment.

(B) Programme Milestone

1) Application Phase: June - December 2024

- UNOOSA and Exolaunch will organize a series of webinars to guide participants on the development process and how to prepare the application. Participation in the preparatory webinars is recommended.
- Applying entities must submit their completed application forms by the requested deadline.

2) Selection Phase: January - June 2025

- UNOOSA and Exolaunch will shortlist a maximum of three (3) entities and notify them of down selection by 28 February 2025.
- UNOOSA and Exolaunch will interview the shortlisted entities in March and/or April 2025.
- The shortlisted entities must submit an updated application form and review and confirm the contents of the legal terms with Exolaunch and UNOOSA by 31 May 2025.
- UNOOSA and Exolaunch will select a maximum of two final awardees prior to 30 June 2025.

3) Contract Phase

- Technical coordination in preparation of the CubeSats deployment between the Selected Entity and Exolaunch.
- Signing of legal arrangements (contracts) between the Selected Entity and Exolaunch.

4) Development Phase

- Preliminary Design Review: The Selected Entity shall conduct a preliminary design review for the CubeSat. UNOOSA and Exolaunch reserve the right to attend the review either in person or by teleconference or videoconference.
- Critical Design Review: The Selected Entity shall conduct a critical design review for the CubeSat. UNOOSA and Exolaunch reserve the right to attend the review either in person or by teleconference or videoconference.
- Safety Review: The Selected Entity must undergo a safety review. The materials for the safety review must be provided to Exolaunch no later than 30 days prior to the date of the review. The Selected Entity must complete the functional and environmental tests and include the results in the safety review materials.
- Compatibility Review: Exolaunch and the Selected Entity will review the compatibility

of the CubeSat with all interfaces, such as the mechanical, electrical, and thermal interfaces between the CubeSat and the deployment structure, as well as with the launch environment, including vibration frequencies and acceleration rates. Exolaunch will confirm applicable testing procedures at this stage. Exolaunch may require data gathered from the test and inspection conducted during the CubeSat development phase as input for the compatibility tests.

- Interface Control Document: According to the technical coordination, the Selected Entity and Exolaunch shall co-develop and sign an Interface Control Document between the CubeSat and the deployer and the launch vehicle during the different stages of the coordination. Final version of the Interface Control Document shall be signed prior to three (3) months before the Launch.
- Mission Readiness Review: The Selected Entity will conduct a mission readiness review. UNOOSA and Exolaunch may attend the review as an observer.

5) Handover and Transportation Phase

- The Selected Entity shall be responsible for transporting its CubeSat to a facility specified by Exolaunch. The battery of the CubeSat shall be fully charged before delivery and able to be stored for a period not less than 90 days before recharging is required. After the handover, Exolaunch will manage the integration process of the satellite into the deployer.
- Approximately two (2) months prior to launch, Exolaunch will transport the CubeSat to the launch site and be responsible for the operational work at the launch site.

6) Launch and Deployment Phase

- Exolaunch will arrange the launch of the CubeSat by a designated space transportation vehicle, including deployment of the CubeSat from the EXOpod.
- The awardee will be responsible for securing all applicable launch and regulatory licenses prior to launch.

7) Post-deployment Phase:

- Upon deployment, the awardee will conduct satellite operation, data evaluation, and space object registration.
- The country of the awardee will register the CubeSat either in accordance with the Convention on Registration of Objects Launched into Outer Space or, if the country of the Selected Entity is not a party to the Convention, in accordance with General Assembly resolution 1721B (XVI).

8) Reporting Phase:

- The awardee shall submit the following reports to UNOOSA and Exolaunch:
 - A report on the operational results no later than 3 months after the deployment of the CubeSat.
 - A report on the CubeSat mission, related activities, and any publications about the CubeSat mission every 6 months.
 - A Final report on the results of the mission no later than 3 months after completion of the CubeSat mission.

13. Technical Requirements

The CubeSat shall be compatible with the EXOpod Nova CubeSat deployer. Refer to the latest version of

Exolaunch's EXOpod Nova User Manual (March 2024), available on the Exolaunch website, for technical compatibility requirements. In addition, Exolaunch requires that the selected CubeSats adhere to the SpaceX Rideshare Payload User's Guide (RPUG). Specifically, Table 6-2: Containerized CubeSat Unit Test Levels and Durations describes the environmental test requirements that the CubeSat must undergo.

14. Eligibility Criteria

This Opportunity is open to entities located in developing economies and economies in transition that are Member States of the United Nations:

- Government organisations, research institutes, universities, and other public and non-for-profit organisations are eligible to apply for this Opportunity. Private companies are ineligible.
- Entities located in countries that do not have satellites in orbit at the time of the opening of this application (according to the information on the United Nations Register of Objects Launched into Outer Space) are particularly encouraged to apply.

To assess eligibility, UNOOSA and Exolaunch will use the country classification list of developing economies and economies in transition indicated in the joint report, *World Economic and Situation Prospects* published by the United Nations Department of Economic and Social Affairs and other related organisations: <https://desapublications.un.org/file/1098/download>

Entities applying for this Opportunity are responsible for the development of their CubeSat, including the designing, manufacturing, testing, and verification of their CubeSat, as well as its operation and utilization after the deployment. Therefore, to be eligible for this Opportunity, applying entities must demonstrate in their application that they have sufficient capability and resources in the following areas:

- CubeSat design, manufacture, testing, and operation
- Transportation of the CubeSat to Exolaunch (planning, budget, export/import control etc.)
- Coordination of all radio frequency-related matters in full compliance with the applicable International Telecommunication Union radio regulations
- Ability to obtain a license of radio ground stations for operating the CubeSat in the applying country
- Development of the ground station facility with a radio frequency license
- Registration of the CubeSat in the Register of Objects Launched into Outer Space

Teams are allowed and encouraged to partner with external entities that can support their development, even if those entities are not eligible themselves. These partnerships should be clearly written as "External Support" in the Application Form and external partners shall not be included in the team.

15. Selection Criteria

UNOOSA and Exolaunch will nominate members of the Selection Board, which will review the incoming applications according to the following criteria:

- Completeness of application form.
- Scientific and technical value of the CubeSat mission, as determined by either:
 - (a) The CubeSat mission's expected contribution to developing human knowledge and capacity to undertake activities in the field of space science and technology in the applying entity's home country or abroad; or

- (b) The CubeSat mission's expected contribution to enhancing research and development through the technological demonstration of deploying and operating the CubeSat in the applying entity's home country or abroad.
- Novelty of the mission (the CubeSat mission shall not copy any previous development design of the applying entities, if any).
- Demonstrating that the applying entity itself and the intended design and function of the CubeSat are consistent with peaceful exploration and use of outer space, and are not intended solely for commercial, political, or religious purposes.
- Link between the CubeSat mission and the Sustainable Development Goals.
- Capability of the team to comply with the technical requirements outlined by UNOOSA and Exolaunch.
- Compliance with the Programme Schedule, including the deployment schedule.
- Outreach, communication, and dissemination plan about the CubeSat mission.
- The team composition of proposals with the same score will be compared and the proposal with a larger number of women will be ranked higher.
- Compliance with the [Space Debris Mitigation Guidelines](#) and [Guidelines for the Long-term Sustainability of Outer Space Activities](#).

16. Roles and Responsibilities

The Selected Entity shall conduct the following activities:

- Submit and update the overall schedule/timeline for the CubeSat development and its mission.
- Attend the technical coordination meetings.
- Submit the satellite interface verification record (same document that will be submitted for the safety assessment to verify compliance with Exolaunch technical requirements).
- Design, analyze, manufacture, and test the CubeSat and its supporting systems, including verification of the compatibility with the technical requirements, except for the compliance tests that will be conducted by Exolaunch.
- Conduct all radio frequency-related matters in full compliance with the applicable International Telecommunication Union radio regulations.
- Verify the safety assessment, as well as the compliance of the CubeSat design with Exolaunch's technical requirements for the safety assessment, and prepare the materials and operations required for the safety review.
- Deliver the CubeSat to the location specified by Exolaunch.
- Operate the CubeSat after deployment, including tracking control and data acquisition.
- Register the CubeSat either in accordance with the Convention on Registration of Objects Launched into Outer Space or, if the country of the Selected Entity is not a party to the Convention, in accordance with General Assembly resolution 1721B (XVI).
- Conduct outreach activities to promote capacity-building and STEM education related to the CubeSat project.
- Contribute to the public relations and promotion activities of UNOOSA including responding to press inquiries about the CubeSat and preparing information materials upon request from UNOOSA.
- Ensure compliance with the [Space Debris Mitigation Guidelines](#) and [Guidelines for the Long-term Sustainability of Outer Space Activities](#).
- Inform UNOOSA and Exolaunch of any publication that uses the outcome of this CubeSat mission, including PhDs, Master theses, publications in journals, and conference or workshop proceedings and presentations. The Selected Entity is requested to include the following sentence in their peer-reviewed publications, contributions to congresses, and other forms of written dissemination:

“The authors would like to thank the United Nations Office for Outer Space Affairs and Exolaunch for the Access to Space for All Initiative: Programme on CubeSat deployment from Exolaunch: UNOOSA and Exolaunch for their support in enabling the deployment of the CubeSat.”

Please note that the Selected Entity shall bear any costs associated with the activities above, including employment costs, travel expenses, and transportation fees.

UNOOSA and Exolaunch encourage the Selected Entity to submit the model of their receiver using GNU Radio Companion (GRC) format for publication. This will enable other entities to access the telemetry of the satellite and participate in efforts to track the CubeSat developed by the Selected Entity. UNOOSA will consider publishing the telemetry (e.g., pictures or other data), subject to consultation with Exolaunch and the Selected Entity.

17. Terms and Conditions

By submitting a completed Application, the applicant agrees to the following:

- The Selected Entity will enter into an agreement (contract) with Exolaunch to resolve any and all practical, logistical, technical, and/or legal issues related to the deployment of the CubeSat from EXOpod that may arise between Exolaunch and the Selected Entity. The agreement (contract) will contain terms to define, *inter alia*, the scope of work, the necessary conditions for the deployment, allocation of costs, compliance rules, handling of technical information and test results, confidentiality, security issues of Exolaunch facilities, declarations of immunity and hold harmless on the part of Exolaunch, cross-waivers of liability for damages sustained by either party, third party liability claims, registration of the CubeSat space object, and apportionment of other responsibilities arising under United Nations treaties on outer space and dispute resolution procedures.
- Exolaunch does not in any way guarantee the launch date, the launch success, the deployment date, and/or the deployment success, nor will Exolaunch be in any way responsible for the overall success of the mission. The specific date of the launch and deployment will be fixed by negotiation between Exolaunch with the Selected Entity after the assignment of the launch.
- Exolaunch may terminate the provision of the deployment opportunity at any time, should the Selected Entity violate the terms and conditions as described in this Announcement of Opportunity and/or the separate agreement (contract) and/or when the Selected Entity cannot meet the Programme Schedule.

18. Application Submission

Applicants must email the fully completed application documents including the Letter of Endorsement from the head of their entity (Document 1) and Exolaunch/EXOpod Mission Application Form (Document 2) to UNOOSA by 31 December 2024 23:59 Central European Time (CET, UTC+1) to the following address:

unoosa-access-to-space@un.org

In the email, applying entities should attach a PDF version (pdf.) Please note that the UNOOSA email account only accepts emails with a size limit of up to 10 M bytes. Submission of all necessary documents is mandatory.

Applicants are required to notify their country’s permanent mission in Vienna ([Permanent Missions to the United Nations \(Vienna\) \(unodc.org\)](#)) of their application submission to UNOOSA. If they cannot locate

the permanent mission's information in the above link, please refer to Geneva ([Member States | UN GENEVA](#)) or New York ([e-BlueBook \(unmeetings.org\)](#)).

UNOOSA or Exolaunch reserve the right to request additional information from applicants, if necessary, to assist in the evaluation of the application. All award decisions are final and made at the sole discretion of UNOOSA and Exolaunch and are not subject to challenge or review.

19. United Nations Privileges and Immunities

Nothing in or relating to this Announcement of Opportunity shall be deemed a waiver, express or implied, of any of the privileges and immunities of the United Nations, including its subsidiary organs.

20. Additional Information

The latest information on Exolaunch EXOpod project will be made available on the website of UNOOSA at:

<https://www.unoosa.org/oosa/en/ourwork/access2space4all/EXOpod/exopod-index.html>

The EXOpod Nova User Manual can be seen publicly on the Exolaunch website at:

https://exolaunch.com/documents/EXOpod_Nova_User_Manual_March_2024.pdf

The SpaceX Rideshare Payload User's Guide can be seen publicly at the SpaceX Rideshare website at:

<https://www.spacex.com/rideshare/>

https://storage.googleapis.com/rideshare-static/Rideshare_Payload_Users_Guide.pdf

For further information regarding this opportunity and applications, please contact

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