





Call for Proposals

Science and Technology Research onboard the International Space Station

Issuance Date: September 21th, 2023

Submissions Due Date: December 1st, 2023

Note: For any updates regarding submission deadlines, please visit www.rakiamission.com/callforproposal. For general questions related to this research announcement, please email info@rakiamission.com







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Introduction

Rakia Mission, a public-benefit corporation (PBC), offers opportunities for space research and activities onboard the International Space Station (ISS). Rakia Mission provides a platform for various individuals and entities, to promote Israeli initiatives for the benefit of life on Earth, space research, and to contribute to the Israeli space ecosystem. Our activities promote values of innovation, social responsibility, peace, and climate action.

During AX-1 mission to the ISS in April 2022, the Rakia Mission facilitated, for the first time, an approach of open access to human spaceflight missions to the general public: educators, students, artists, academia, hospitals, and private companies, were invited to devise the mission's programme. This inclusivity resulted in a fertile and impactful collaboration between different bodies, innovative developments, educational activities, and overall 95 distinct contributions to the UN SGDs.

The Rakia Mission seeks to continue the contributions to Israel's space industry and ecosystem, by expanding access to the ISS to the public in Israel. The Rakia Mission team offers an end-to-end integration process for a variety of payloads (scientific research, technological demonstration, educational activities, art activity, and others)

Call for Proposal Scope

This Rakia Mission Call for Proposals (RMCP), issued by both the Rakia Mission and the Israel Space Agency, at the Israeli Ministry of Innovation, Science and Technology (the "Israel Space Agency", and jointly, the "Issuers"), solicits scientific and technology research proposals to be conducted in the microgravity environment onboard the International Space Station, both autonomous and astronaut-operation-needed activities.

This solicitation will consider ANY area of science/technology which can be performed at the International Space Station, with the exception of clinical studies that involve sample collections from astronauts, inclusive of blood, urine, and stool. A separate call for proposals for clinical studies will be published.







The proposed projects must justify access to the ISS for developments, research, testing, or technology demonstration, that enhance knowledge, enable novel solutions, or the creation of new products and business opportunities.

This call is open to any Israeli organizations or teams that wishes to conduct experiments or demonstrate technologies aboard the ISS: Academic Institutes, research centers, not-for-profit organizations, entrepreneurs, startups, and commercial organizations. Collaboration between any of these, including with international partners, is encouraged.

Submission and Selection Process

All proposals will be evaluated by a committee of multidisciplinary experts from academic institutes, the government, and the Israel Space Agency.

Submissions Due Date: December 1st, 2023

The proposals selection will be according to the following scheme:

Initial Evaluation

Feasibility Evaluation by implementation partners

Final Selection

The proposals will be evaluated according to the following prerequisites:

- Technical feasibility of the experiment to be conducted on the ISS.
- Scientific and Economic value, novelty, and breakthrough.

Proposals must include a statement defining what will be the scientific or technological research benefit of using the ISS as a platform for execution. Offerors should explore the literature for prior research in a microgravity environment that may help improve their experimental design and deliver novel, high-impact results.







Integration and Execution Process

The issuers' team offers end-to-end services for the preparation, integration, and operation of the approved scientific and technological payload that was submitted for this call for proposals. After setting the legal engagement between the issuers and the offerors, the payload will be processed by the issuers' team together with the selected ISS implementation partner according to the following scheme:

Legal Phase 1: Conception Phase 2: Plan & Prepare Phase 3: Design & Verify Phase 5: Design & Phase 5:

Phase 1 – Conception:

- Deliver operation concept.
- Defining the specific integration needs of the payload.
- Identification of potential risks.
- An estimation for the integration process schedule will be delivered based on this phase.

Phase 2 – Plan & Prepare:

- Define transfer interface requirements.
- Define on-orbit interface requirements.
- Complete phase I Safety Review to determine hazards and define control requirements.
- Initiate research planning (crew time, research planning data)

Phase 3 – Design & Analyze:

- Preliminary Design Review.
- Complete phase II Safety Review.
- Flight assignment and manifesting.
- Define test plan for verification.
- Provide inputs for operations products.

Phase 4 – Verify

- Submit interface verification and obtain approval.
- Complete phase III Safety Review.
- Provide data for ground handling and launch vehicle integration.
- Prepare hardware for turnover.





Phase 5 – Deliver

- Deliver hardware, software, training products, and operational products (Ground & Crew).
- Launch the payload to the International Space Station

Phase 6 – Operate & Post Operation

- On-orbit operation
- After the operation, payload hardware will be returned or discarded.

The issuers will provide estimated costs for the launch, integration process, and operation (end-to-end) based on the initial proposal (further questions may be discussed after the end of the selection process), before the legal engagement phase.

Proposal Preparation and Submission Instructions

All proposers must submit the following to the submission box located at www.rakiamission.com/callforproposal:

- 1. Cover page (1-page)
- 2. Abstract (up to 350 words)
- 3. Technical Section (up to 10-pages)
- 4. Budget breakdown (1-page)
- 5. Proposal Schedule (1-page)
- 6. Collaborations descriptions
- 7. Reference list (optional; 1-page)

Templates for the cover page, proposal, and more details for each section, can be found online at the Rakia Mission website. Proposers must use 1-inch margins and a 12-point standard font (Times or Arial).

NOTE: Proposers have the responsibility to clearly explain critical details needed for the committee to properly assess the proposal. Proposers should not assume that committee experts in the specific area, nor that the reviewers will look at any material other than what is provided in the proposal. Proponents should be concise, clear, and readable, describing the entire technical approach. All abbreviated terms should be identified.







Appendix A: Terms & Conditions

These Terms and Conditions (the "**Terms**") govern all project proposals submitted in response to the Rakia Mission Call for Proposals ("**Proposal**") issued by both Rakia Mission, a non-profit corporation incorporated under the laws of the Stare of Israel and the Israel Space Agency, at the Israeli Ministry of Innovation, Science and Technology (jointly, the "**Issuers**").

For the avoidance of doubt, it does *not* cover the terms and conditions related to future legal engagement.

By submitting your proposal, you accept these Terms, and you acknowledge that you, on your own behalf as an individual and/or on behalf of your employer or another legal entity ("applicant", "you" or "your" and diversion thereof), have read and understood and agree to comply with these Terms.

If you do not agree to comply with and be bound by these Terms or do not have the legal capacity and authority to bind your organization, please do not accept these Terms or submit a proposal.

All capitalized terms used herein shall have the meanings given for such terms herein.

PROPOSAL SUBMISSION

Accuracy and Reliability.

You represent and warrant that all information included in the Proposal is accurate, reliable, and does not infringe any third-party rights, legal obligations or intellectual property.

You acknowledge that the Issuers may rely on the accuracy and reliability of the information provided in your Proposal.

Applicant's Ownership of Intellectual Property's Rights. You acknowledge and agree that the Issuers may review your Proposal, which may contain valuable intellectual property and/or confidential information. The Issuers recognize and acknowledge that 'intellectual property' may include all rights, title and interests, whether foreign or domestic, in and to any and all trade secrets, patents, copyrights, service marks,







trademarks, know-how, or similar intellectual property rights, as well as any and all moral rights, rights of privacy, publicity and similar rights of any type under the laws or regulations of any governmental, regulatory, or judicial authority, foreign or domestic, in the Proposal shall remain in the ownership of the submitters. The Issuers agree not to claim any ownership of any intellectual property rights belonging to the submitters that may be contained in the Proposal.

Feedback. You agree that any recommendation, idea, proposal, suggestion, feedback or other input you submit to us related to our business and operations, may be used by us without any notice, obligation, restriction, reimbursement or compensation to you and you waive (or agree not to enforce) any and all rights that may now or in future exist (including moral and equivalent rights) in any such feedback.

THE ISSUERS' RIGHTS AND AUTHORITIES

- 1.1. **Sole Discretion of the Issuers**. The Issuers reserve the right to evaluate and select Proposals based on its own criteria and internal processes, subject to their sole discretion. The Issuers may accept or reject any Proposal, in whole or in part, without providing any reasons for their decision and the submitters shall have no claims, rights, or remedies against the Issuers.
- Call of Termination. The Issuers reserve the right to terminate the Call for Proposals at any time, for any reason, without prior notice or liability to the applicants. In the event of such termination, the Issuers shall have no obligation to select or evaluate any Proposal, and the applicants shall have no claims, rights, or remedies against the Issuers. You may ask the Issuers to retrieve or delete materials you have provided the Issuers as part of your submission for the Proposal.
- **Data Protection**. By submitting a Proposal, you give your consent to process the personal data you have provided to us, and you hereby acknowledge that such personal data if collected from others, has collected lawfully and that you are authorized to share such data with the Issuers. You







further agree that we can use your information in accordance with our privacy policies and applicable data protection law.

LIMITATION OF LIABILITY

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, WE, ALONG WITH OUR PARENT COMPANIES, AFFILIATES, OFFICERS, DIRECTORS, EMPLOYEES DO NOT MAKE ANY REPRESENTATIONS, PROMISES, OR WARRANTIES, EXPRESS OR IMPLIED, ABOUT THE CALL FOR PROPOSALS, AND ANY SUBMISSION OF PROPOSALS IS AT YOUR OWN RISK, AND YOU AGREE AND UNDERSTAND THAT WE WILL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, DAMAGES, EXEMPLARY OR PUNITIVE DAMAGES ARISING FROM OR IN CONNECTION WITH THESE TERMS, AND IN NO EVENT WE WILL NOT BE LIABLE IN CONNECTION WITH ANY DISPUTES THAT ARISE OUT OF OR RELATE TO THESE TERMS FOR ANY AMOUNT GREATER THAN \$1,000.

GOVERNING LAW AND DISPUTES.

These Terms shall be governed and construed by the laws of the State of Israel, without reference to its conflict of laws rules. Any dispute arising between the parties hereunder shall be exclusively resolved in the competent courts of the Tel Aviv, Israel.

CHANGES TO THE TERMS AND CONDITIONS:

The Issuers may, at any time, vary, add to or delete any provision of these Terms and Conditions, which shall enter into force and effect upon their publication at any of the Issuers' website.

To the extent allowed under applicable law, you hereby waive any applicable rights to require or receive an original (non-electronic) signature or delivery of non-electronic records of these Terms.

Last updated in August 2023.