**Call for proposals for joint scientific research on Environmental Monitoring in the framework of the joint United Arab Emirates -Israeli space activities**

Recalling the Memorandum of Understanding between the Government of the United Arab Emiratesand the Government of the State of Israel , signed on October 20th, 2021 (the"**MOU**"), and further to the Letter of Intent Between the Israel Space Agency and the United Arab Emirates Space Agency Concerning the Advancement of Joint Scientific Research: VENµS- Call for Proposal, signed on October 20th, 2021, the Israeli Ministry of Innovation, Science and Technology ("MOST") and the United Arab Emirates Space Agency ("UAESA") (hereinafter collectively referred to as the "**Sides**") are issuing this Call for Proposals to select joint scientific research project (the "**Project**") to be conducted on “Space-based remote sensing for Earth observation”.

Space-based remote sensing is an important ability for Earth research. Using a variety of sensors enables monitoring and exploration of different phenomena, including: water resources monitoring, precision agriculture, vegetation exploration, land mapping and more. It is expected that the proposed applications will be studied in conjunction with the Data Science concept, e.g., big data analysis, informatics, and related techniques (for example, cluster analyses, machine learning, etc.).

The increased attention paid by global space agencies to remote sensing via satellites for the study of Earth enables to produce relevant and accurate information of its resources and their applicable changes.

Under this Call for Proposals, ISA and UAESA intend to select a joint research project, proposed jointly by Universities and Research Institutes from both sides, in the field of: Earth observation with focus on agriculture and water research.

The Call for proposal will be based on the VENµS satellite data, which is a joint program with CNES. VENµS: Vegetation and Environment monitoring on a Micro Satellite which operates since August 2017.

# Mode of Cooperation

1. The procedures detailed in this Call will be conducted in accordance with all relevant applicable laws, regulations and procedures of Israel and the United Arab Emirates.
2. The proposals must be jointly submitted by UAE and Israeli research groups.
3. One project will be funded. UAESA shall finance the UAE team and ISA the Israeli team in each Project selected, in accordance with each Side's laws, regulations and procedures.
4. The proposals must contain a detailed description of the research activities that are to be conducted in the Project by each team, along with a detailed budgetary plan.
5. The proposed Projects must comply with the relevant UAE and Israeli laws, regulations, and procedures.
6. A Proposal submitted in response to this Call is construed as the applicant's consent to adhere to all relevant rules and regulations applicable.
7. Any activity under this Call is subject to the respective international obligations of each of the Sides.

# Funding and Project Duration

1. The Sides will evaluate the Project proposals and select, by means of a mutual committee, one Project to be funded.
2. The UAESA will finance the UAE team and ISA the Israeli team in the selected Project, in accordance with each Side's laws, regulations and procedures. The budget for the Project will be roughly $100,000 USD (340,000 ILS) from each Side.
3. For the UAE team: A down payment will be released subject to contract signature and project kick-off. The rest of the payments will be released on annual basis (2nd payment will be released 12 months after project’s kick-off).
4. For the Israeli team: payments will be made in accordance with the MOST Procedures Regarding Scientific Projects and Scholarships Funded by MOST and the MOST Standard Contract for Scientific Projects.
5. The planned duration of the Project will not exceed two years.
6. The final approval of the selected Project is expected during the year 2022, pending budget availability.

# Eligibility

Proposals that do not meet the following preconditions will be automatically rejected, and will not be passed on to the scientific committee for review and evaluation.

1. A proposal will include two collaborating research teams, UAE and Israeli and led by a Principal Investigator ("**PI**"), according to the following requirements:

On the Israeli side:

In Israel, an **Academic or Research Institution** is one of the following:

* An accredited Institution of Higher Education in Israel, in accordance with the Council for Higher Education Law, 1958;
* A Research Institute which is a nonprofit organization, a government company or a governmental unit.

(For the purpose of this Call, a "Research Institute" is a research institute which is active in the advancement of cutting-edge scientific knowledge, retaining the appropriate infrastructure and equipment for such activity and employing researchers who publish articles related to their research in leading scientific journals and present their research at international symposia).

The Principal Investigator of the project must belong to an Academic or Research Institute as defined above (Private Israeli companies may only have the role of subcontractors in the Project) and may not have another research project that will be receiving funding under the international cooperation track during the duration of the proposed research project under this Call, in accordance with the MOST Procedures Regarding Scientific Projects.

On the United Arab Emirates side:

Academic or research institutions, government or private organizations in the UAE are eligible to submit their proposals. The PI of the project shall belong to any of the eligible entities above.

# Provisions

1. Intellectual Property Rights

It is strongly recommended that the UAE and Israeli research teams and their institutions enter into agreements regarding intellectual property rights prior to the start of collaborative activities.

1. Scientific and Financial Reports

Both PIs will submit the necessary reports, both scientific and financial, on a regular basis to UAESA and MOST respectively, in accordance with their internal procedure. Additionally, a joint final report detailing the results of the research activity carried out will be submitted at the end of the research period. All reports will be submitted in English.

1. Mutual Visits

Members of both teams in the approved Project are encouraged to visit at the collaborating institution for the advancement of the Project.

Considering that the visits are an integral part of the joint research, the travel and accommodation expenses of these planned mutual visits must be included in the presented budget estimate of the Project.

The visits will take place in the collaborating teams' institutions, in the United Arab Emirates and Israel.

1. A Status Seminar will be held in a virtual format approximately 12 months after the Project funding approval, in order to evaluate the progress/results of the researches. At the status seminar, the Israeli-UAE research group will present its research results, including each side's contribution to the research, the overall result, and the cooperation between the two research groups. The relevant expenses for travel and accommodations for the seminar should be included in the budget estimate of the Project.

# Evaluation and Selection

The proposals will be evaluated, rated and approved by a joint UAE-Israeli committee, taking into consideration the professional external reviews by the referees (see below), based on the following criteria:

1. Scientific evaluation: originality and innovation of the proposal within the subject the Call (35%);
2. Significance and relevance of the problems and scientific issues of the Project as well as the potential usefulness and innovation of the methodologies to be adopted (15%);
3. The extent to which the proposal research methodology is qualitative and feasible (10%);
4. Scientific qualifications of the coordinators: adequate experience, scientific skills, ability to manage the cooperation activities between the two teams and to achieve the expected results of the Project (20%);
5. Clarity and quality of the proposal: presentation of the object, definition of the objectives and the work program (10%);
6. Extent of genuine collaboration between the United Emirate and Israeli research teams (10%);

# Guidelines for Submission of Proposals

1. The proposals must include detailed project budgets.
2. When submitting the proposals each applicant should suggest five external reviewers ("referees") in a separate file. However, the Committee reserves the right to select the referees and is not obligated to select those proposed by the applicant. A partner in a joint publication or collaborative research project with an applicant within the past five years as well as colleagues from the same institution cannot be recommended as a referee.
3. The proposals should be submitted simultaneously by both the UAE and Israeli principal investigators to MOST or UAESA, respectively. If only one partner organization receives the proposal, it will not be considered for funding.
4. A proposal shall be written in English and signed by the PI's of both the Emirates and Israeli teams, as an approval of both the scientific approach and the estimated costs of each Side.

Instructions for Israeli researcher:

In Israel, proposals must be prepared in English. Israeli applicants will use the new online submission system of MOST for submitting their proposals, through the following link: <https://kf.most.gov.il>.

In order to apply the applicant needs to fill an "Account Request" on the Science Forefront Site. The request should be approved by the research authority of the institute. Once approved, the applicant will be notified by email that the account is approved.

If you encounter any technical problem, please send an email to MostProposalForm@most.gov.il .The submission process includes two phases:

1. The Proposals must be submitted by the **researchers** to the relevant official in the Institute's research authority, through the online system by **9/3/2022** (March the 9th) at **15:00** (local Israel time). The online system will be closed for submissions by the specified date and hour and no submissions will be accepted under any circumstances after the due date. **It should be emphasized that an Israeli researcher who will not submit his proposal on or before 9/3/2022 at 15:00 will not be able to do so at a later date.** A researcher who submitted his application may edit his proposal with an approval by the relevant official in the research authority in his institute, until the last submission date **(16/3/2022 at 15:00)**.
2. The **institute** will submit the final application no later than **16/3/2022**, at **15:00** (local Israel time). This is the final formal phase for submitting the Proposals. Proposals that are not submitted by the institute by the due date, through the online system, will be disqualified.

**Please pay attention, as technical problems are possible, it is strongly recommended to submit the application well in advance of the aforementioned deadlines.**

Instructions for UAE researchers:

1. Visit the following link to view information on the submission steps and requirements: <https://space.gov.ae/Page/20121/20272/Environmental-Monitoring>.
2. The proposals and all other requested documents must be submitted to Apps@space.gov.ae by **16/3/2022** at **15:00**.

# For Further Information:

UAE Institutions interested in getting in contact with possible Israeli collaborators may contact the Israeli Space Agency at the following address: adiN.ext@most.gov.il

Israeli Institutions interested in getting in touch with possible collaborators from the United Arab Emirates may contact the UAE Space Agency at the following address: H.Alhashmi@space.gov.ae

Additional information can be obtained from the following:

**For the Israeli researchers:**

On scientific and professional matters and International Relations matters:

Dr. Adi Ninio Greenberg

Scientific advisor, ISA

Tel: 052-3332688

E-mail: adiN.ext@most.gov.il

On administrative and financial matters:

Ms. Meira Binyamin
Head of Scientific Assistance for Planning & Development
Tel: +972-2-5411170/173/829
E-mail: meirab@most.gov.il

**For the United Emirates researchers:**

For any inquiries on scientific and administrative matters:

Mr. Hamed Al Hashmi

Space Projects Development Senior Engineer

Tel: +971 2 202 2425

E-mail: H.Alhashmi@space.gov.ae