



**Summary of International Research Announcement of Opportunity  
for the formation of one or more teams focussed on  
investigations into space radiation environment and space weather  
research at the Gateway**

- The European Space Agency (ESA), in collaboration with the international partners, National Aeronautics and Space Administration (NASA), Japan Aerospace Exploration Agency (JAXA) and Canadian Space Agency (CSA) announces an opportunity to propose investigations into space radiation environment and space weather research beyond low Earth orbit at the Gateway.
- Investigations shall be performed using data products from the European Radiation Sensor Array (ERSA) payload, which will be externally mounted on the Gateway's Power and Propulsion Element (PPE) and from the Internal Dosimeter Array (IDA), which will be located inside the Habitation and Logistics Outpost (HALO) module. More details on the instruments selected to fly on the ERSA and IDA payloads and their science capabilities are provided in the attachment ("*ERSA\_IDA\_Science\_Capabilities.pdf*").
- Investigations shall address ERSA and IDA objectives (see Section 3) to further understand and map the radiation environment at the Gateway's orbit and inside the Gateway.
- Investigations shall enable space weather now- and fore-casting, as well as serve safe long duration human spaceflight missions in deep space. Interdisciplinary science objectives complementing those of ERSA and IDA will also be considered. These can include the objectives of the sister payload NASA's Heliophysics Environmental and Radiation Measurement Experiment Suite (HERMES – see this [link](#)).
- Eligibility: Investigators from the international research community shall self-organise into one or more internationally collaborative teams with members strongly encouraged to be from across the Gateway participating nations and agencies, namely the Member States of the European Space Agency (ESA), Canada, Japan and the USA. Representation of the communities from the Gateway participating nations and agencies will be assessed as part of the review process (see Section 6 for details about the selection criteria).
- In order to be eligible to undergo the scientific review process, applicants must be affiliated with recognised research institutions (such as universities, colleges, institutes). Furthermore, applicants will need to provide confirmation that they have informed their national agency/delegation before submitting their proposal.

**Proposals are due for submission not later than 12<sup>th</sup> of November 2021 at 23h59 CET.**