

SpaceRISE

Space Consortium for a Resilient,
Interconnected and Secure Europe

IRIS² Programme

High-level procurement plan

The SpaceRISE consortium, consisting of Eutelsat S.A., Hispasat S.A., and SES Astra, signed two important agreements in December 2024: the Concession Agreement with the European Commission and the Partnership Project Contract (PP Contract) with the European Space Agency (ESA). The consortium will be responsible to design, deliver, and operate the Infrastructure for Resilience, Interconnectivity, and Security by Satellite (IRIS²) over the next twelve years.

The IRIS² Satellite Constellation is the European Union's third flagship, addressing long-term challenges of EU's security, safety and resilience by offering enhanced connectivity services to governmental users.

The new multi-orbital constellation will combine the benefits offered by Medium Earth Orbit (MEO) and Low Earth (LEO) satellites. It is set to provide secure connectivity services to the European Union and its Member States as well as broadband connectivity for governmental authorities, private companies and European citizens, while ensuring high-speed internet broadband to cope with connectivity dead zones.

In line with the IRIS² Regulation,¹ at least 30 % of the value of the Concession Agreement shall be subcontracted by competitive tendering at various levels of subcontracting to companies outside the group of the prime tenderer, in particular in order to enable the cross-border participation of SMEs in the space ecosystem. In addition, pursuant to the ESA PP Contract, unless otherwise authorised by ESA, all Subcontractors shall be selected in competition.

For the overall overview of the procurement actions, reference is made to the presentation delivered by SpaceRISE at the IRIS² Industry Info Day on 12 February 2025, in Brussels, and published on esa-star news: <https://esastar-publication-ext.sso.esa.int/news/details/11079>

In the frame of the procurements, a distinction needs to be drawn between procurements falling under the responsibility of (i) SpaceRISE; and (ii) the Large System Integrators (LSIs).

¹ Regulation (EU) 2023/588 of the European Parliament and of the Council of 15 March 2023 establishing the Union Secure Connectivity Programme for the period 2023-2027, OJ L 79, 17.3.2023, p. 1.

1. Procurements under the responsibility of SpaceRISE

1.1 ESA PP Contract scope

The table below provides an overview of the first procurements lots to be released under the frame of the ESA PP Contract. This list will evolve depending on the needs of the programme; dates are indicative only.

Scope	High level Description	Estimated RFI issue date
Optical Inter-Satellite Links (OISL)	SES, on behalf of SpaceRISE, intends to issue a Request for Information (RFI) for the procurement of technology derisking activities (engineering, development and testing) of complete OISL system.	June 2025
Reaction Wheels	<p>Eutelsat, on behalf of SpaceRISE, intends to issue an RFI for the derisking activities of Reaction Wheels (RW). Each RW consists of:</p> <ul style="list-style-type: none">• The flywheel and its related parts (e.g., balls bearing, motor, housing);• Electronics, including but not limited to, motor driving and digital interface with Satellite on-board computer. <p>One solution should be proposed for the LEO constellation (264 Flight Sets) and the other solution for the MEO (18 Flight Sets) constellation. One Flight Set consists of four (4) RW's.</p> <p>For the purpose of this RFI, derisking includes all the development activities up to QM completion.</p>	June 2025
Propulsion	<p>Eutelsat, on behalf of SpaceRISE, intends to issue an RFI for the derisking activities of thrusters for electrical propulsion system of LEO-High satellites (264 satellites).</p> <p>IRIS² LEO satellites will use one or several thrusters for each electrical propulsion system.</p> <p>Only responses for complete thruster unit (HET) will be considered.</p>	June 2025

	For the purpose of this RFI, derisking includes all the development activities up to QM completion.	
User Terminals – 5G Multi-Purpose Flat Panel Antenna	<p>IRIS² User Terminals will support communication with both LEO and MEO satellites.</p> <p>SES, on behalf of SpaceRISE, intends to issue an RFI for a 5G Multi-Purpose Flat Panel Antenna.</p> <p>As part of this RFI, two distinct blocks will be addressed:</p> <p>1. Pilot User Terminal (PUT) – Multi-Purpose FPA Version</p> <p>This will be a single-size, electronically steered antenna capable of meeting the requirements for fixed, comms-on-the-move, and maritime use cases. Adaptors may be used to accommodate different environments, if needed.</p> <p>The antenna will be optimised for minimum size while ensuring performance for both MEO and LEO connectivity. It will support seamless handovers between MEO and LEO satellites and vice versa. The design will also allow for upscaling or downscaling to support commercialisation of final products, if required.</p> <p>2. 5G Modem</p> <p>This block refers to the full 5G protocol stack, associated functions and hardware necessary to connect to the 5G Satellite RAN and 5G Core. It includes all defined control and data interfaces to ensure modem operability. The modem will feature a standard 5G NTN subsystem aligned with the latest 3GPP specifications (up to Rel-20).</p>	June 2025

User Terminals - TUT	<p>IRIS² User Terminals will enable communication with both LEO and MEO satellites.</p> <p>SES, on behalf of SpaceRISE, intends to issue the Test User Terminal (TUT) RFI, which will consist in a 1.2-meter dual dish antenna able to emulate the performance of any smaller foreseeing user terminal to benchmark its performance. The main purpose of the TUT to be procured, will be testing, validation and calibration activities of the IRIS² connectivity.</p>	June/July 2025
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SpaceRISE will publish the RFI announcements for the above-mentioned procurements on esa-star news to ensure the widest participation of the European industry. Interested economic operators will be required to formally express their interest to SpaceRISE to receive the RFI documentation (contact details will be included in the RFIs announcements themselves).

As part of the RFI process, interested economic operators will be invited to submit short proposals, which will be evaluated in accordance with the evaluation criteria outlined in the RFIs. SpaceRISE will only invite those interested economic operators whose short proposal received the best marking to participate in the subsequent stages of the procurement process (maximum number of invited economic operators will vary depending on the specific tender).

1.2 Ground Segment Procurement

A dedicated communication for the Ground Segment procurements will be issued in the next weeks.

2. Procurements under the responsibility of LSIs

To select the satellite prime subcontractors, SpaceRISE has initiated Competitive Dialogues processes. As part of this process, SpaceRISE is engaging in the frame of the Concession Agreement with:

- Thales Alenia Space France and OHB System AG for the MEO; and
- Airbus Defence and Space and Aerospacelab for the LEO-High.

While the final providers for the MEO and LEO-High may only be selected in Q4 2025, the procurements of some critical Long Lead Items may need to be initiated in advance to ensure the schedule is maintained.

The procurements falling under the responsibility of the LSIs will be directly overseen and managed by them using the same process as the one described above (i.e. high-level procurement plan and RFIs announcements broadly communicated).

Under the LSIs procurement responsibilities, the following equipment to be procured in the frame of the ESA PP Contract has been identified.

Equipment	Open tenders currently identified
Space Segment - MEO	
MEO Avionics	Unit level
Power (EPS) Subsystem	Unit level
Solar Array (SAW)	Unit level
Electrical Propulsion Module (EPPS)	Unit level
Satellite structure	Unit level
Power Conditioning and Distribution Unit (PCDU)	Unit level
PPX0	Unit level
PVA for high radiation resistance on MEO orbit	Unit level
Space Segment – LEO-High	
Thermal development	Unit level
Solar Array development	Unit level
Battery development	Unit level
PPU development	Unit level
STR development	Unit level
PCDU development	Unit level
Structure development	Unit level

At this stage, this list is indicative only and subject to changes. Procurement actions will be published in due time. SpaceRISE will not answer requests in areas not specifically identified in published RFIs.

SpaceRISE reserves the right to initiate procurement of any of these items if necessary to secure the programme schedule.