

EL3 CALL FOR IDEAS - FREQUENTLY ASKED QUESTIONS

1 PROGRAMMATIC QUESTIONS

How does EL3 complement what is in preparation for Artemis?

EL3 shall be capable of delivering cargo to support human missions at the lunar surface. It therefore has the capacity to support Artemis human missions. ESA will work with international partners on cooperative scenarios for EL3 missions.

How does the choice of a medium size lander address sustainability?

The 1.5 tonne payload mass to surface allows EL3 to serve both human exploration and robotic exploration as users, allowing a cadence of missions to be prepared with strong European content and scope for international cooperation.

2 EL3 MISSIONS DEFINITION

Will In-Situ Resources Utilisation (ISRU) or power infrastructure be a priority?

EL3 can deliver infrastructure to the lunar surface, examples being power and ISRU systems. These are ideas that can be submitted to the CFI. Ideas are not limited to such applications. Priorities will be set with Member States before the next ESA Council at ministerial level in 2022.

Will SMEs and Startups be considered for significant involvement in the missions?

SMEs and Startups can respond to ESA Invitations To Tender (ITTs), either as stand-alone proposers or as part of consortia.

Will ESA directly fund scientific instrument development or should the community rely on national agencies?

Both options can be considered. ESA will work with member states to decide on the approach to be taken in advance of payload selection.

3 EL3 FEATURES AND CAPABILITIES

What are the constraints on the landing site (latitude, other environmental constraints)?

Requirements are for global access, excluding "hazardous areas" specified as slopes $>15^\circ$, rocks >50 cm, and shadows.

What are the power and telecommunication link provided by the lander?

The CFI seeks inputs on user needs for power and data.

What will be the lander energy source on the Moon during the lunar nights?

Radioisotopes and fuels cells are under investigations as potential technologies for night survival.

Are there any reusability aspects in the lander design?

The lander design is meant to be reusable. There are no requirements from ESA on reusability of an individual EL3 lander.

4 CFI SCOPE AND IDEAS SELECTION

What should be the maturity level of the ideas?

Ideas for the first EL3 missions would need to be technically consistent with a mission no earlier than 2027. Missions are intended on an approximately 3 year cadence after that.

Does ESA have any preference between a purely scientific mission and one enabling future commercial applications?

Both can be considered. A sustainable lunar programme is expected to deliver science, technology and infrastructure in line with ESA's strategic objectives.

Is it possible for non-ESA Member States entities to participate, or possibly to collaborate with international partners (academia, industry and agencies)?

There are no restrictions on who can submit an idea to the CFI. Please note, however, that restrictions exist for certain implementation paths, e.g. ESA procurement actions are restricted to entities eligible for doing business with ESA (see also [here](#)). We also refer you to the Special Conditions.

Are you thinking to facilitate the gathering of people working on similar items/proposing similar ideas to create strong scientific groups around a project? Should ideas be submitted by single entities or are consortiums also recommended?

Submissions by groups are encouraged. ESA will endeavour to congregate proposals that are similar in scope or are synergistic.

Do you plan to group different mission concepts involving instruments, small enough to be combined to fly in a single mission, as a multiple payload mission?

This is one mission option that can be considered.

How many ideas will be selected by ESA?

This is a stepped review process, with ultimately up to three mission concepts expected to be carried to industrial Pre-Phase A. Each mission concept may consist of more than one submitted idea.

What if I don't want my idea to be publically visible on OSIP?

Ideas can be submitted such that they are not visible to others by selecting "confidential" on the submission form. At a certain stage, however, selected ideas will have to become public. Potential IPR issues will have to be addressed in due time. We also refer you to the Special Conditions.

Is the call for ideas also suitable for a subsystem of the EL3 infrastructure?

No, critical subsystems are not part of this call; but they could be technology demonstrations of subsystems for future missions.

If not, where can we find the industrial Invitation To Tender?

The ESA ITT for the EL3 lander Phase A/B1 (reference AO10334) can be found at <http://emits.sso.esa.int/emits/owa/emits.main>