

VIENNA, MAY 2023

# ESA\_LAB@ – PARTNERING TO INNOVATE

Call for Expressions of Interest to establishing Austrian research and education partnerships with ESA

**Guide for applicants** 

Bundesministerium Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie



## **1** IMPORTANT FACTS IN BRIEF

## In 2016 the European Space Agency (ESA) introduced the "ESA\_Lab@ – Partnering to innovate" initiative as part of ESA's Basic activities.

- ESA\_Lab@ is not a funding mechanism but a cooperation scheme between ESA and a Partner university to intensify research, development, and outreach. Each participant bears the costs of any expenditure it chooses to incur under such collaboration.
- An ESA\_Lab@ should in particular support inspiration, European identity and cohesion to foster the growth of the space sector.
- Austrian Research Promotion Agency (FFG) entrusted by the Federal Ministry of Climate Action, Energy, Environment, Mobility, Technology and Innovation (BMK) supports the establishment of "ESA\_Labs@" in Austria. This measure serves goals 5 "Talent and diversity for space", 3 "Scientific excellence" and 2 "Competitive space sector" of Austria's Space Strategy 2030+ "People, Climate and Economy Space is for everyone".
- Eligible participants: exclusively Austrian Universities and Universities of Applied Sciences are eligible to participate in this Call for Expressions of Interest to establishing education partnerships with ESA in the framework of the ESA\_Lab@ initiative. Universities can team up with cooperation partners.
- The application form (Expression of Interest) is available for <u>download here</u>.
- Expressions of interest can continuously be submitted to: <u>EoIESALab@ffg.at</u> until 31.12.2024.
- Expressions of Interest will be evaluated right away after submission by a Jury composed of ESA experts and the national ESA delegation (FFG and BMK), optionally supplemented by external experts.
- If additional information is required applicants are invited to improve the application once.
- Successful applicants will be invited to conclude a co-operation agreement with FFG.
- After signing the co-operation agreement with FFG, the national ESA delegation will issue a Letter of Support to ESA and applicants will be invited by ESA to conclude a Memorandum of Collaboration to establish an ESA\_Lab@.
- The progress of ESA\_Lab@ activities will be regularly monitored jointly by ESA and FFG.
- Contacts:
  - FFG: Andreas Geisler, andreas.geisler@ffg.at
  - ESA: Elisabeth Surgeons, <u>elisabeth.sourgens@esa.int</u>



## 2 MOTIVATION

#### 2.1 Austria pursues a new space strategy

In 2021 the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation, and Technology (BMK) published Austria's new Space Strategy 2030+ "People, Climate and Economy – Space is for everyone", focusing on six main goals:

- 1. Sustainable development on Earth and in space
- 2. Competitive space sector with high added value and sustainable jobs in Austria
- 3. Scientific excellence for space and Earth exploration
- 4. Space for all areas of life
- 5. Talent and diversity for space
- 6. Space dialogue with citizens

#### https://austria-in-space.at/en/austria-in-space/austrian-space-strategy.php

For each of these goals, a vision, sub-goals and short- to long-term measures have been defined. For goal "5. Talent and diversity for space" these are, e.g.:

**Vision 2030:** A thriving and innovative space sector is building on a fundament of sufficient talent. Diversity is reality in daily live. Austria has increased the range of space-related education and training and this offer is well known to the public.

**Sub-goals 2030:** Advanced space education opportunities are established for the long term. A high level of information about and easy access to space-related educational offers is available. Openness, gender equality and diversity as well as social and thematic diversity are actively promoted in all areas of the space sector.

# 2.2 ESA\_Lab@ as an additional implementing measure for the Austrian space strategy

Austrian Research Promotion Agency (FFG) – entrusted by the Federal Ministry of Climate Action, Energy, Environment, Mobility, Technology and Innovation (BMK) – supports the establishment of "ESA\_Labs@" in Austria. This measure serves goals 5 "Talent and diversity for space", 3 "Scientific excellence" and 2 "Competitive space sector" of Austria's Space Strategy 2030+ "People, Climate and Economy – Space is for everyone". Chapter 2.3 describes the ESA\_Lab@ concept in detail.



### 2.3 ESA\_Lab@: an institutional link between academia and ESA

ESA, together with its Member States, generally supports the cooperation between European academia, research centres and industry to promote innovation in European space activities, their sustainability, and to fully exploit the benefits from space-based systems for the benefit of European society and to nurture an aptly trained and skilled workforce, ultimately contributing to Europe's overall knowledgebase and competitiveness.

As such ESA has a mandate to contribute to the education of young European professionals in the space sector as part of its mandatory activities and is consequently implementing initiatives such as ESA\_Lab@ in the frame of ESA Basic Activities for Science, Research, and Development.

The ESA\_Lab@-initiative was launched by the ESA Executive after the 2016 Ministerial Conference.

The central idea of ESA\_Lab@ is to establish an institutional link between a Partner university (may include other research and technology organisations and industry in a consortium) on one side and ESA on the other. ESA\_Lab@ is based on a cooperation scheme without exchange of funds, with the aim of intensifying research, development and outreach.

ESA's involvement in such cooperation, as well as participation in exciting projects, should help to raise interest in space and make space more visible to a younger audience. This will also pave the way for highly qualified young professionals in the space sector.

ESA\_Lab@ **is not a funding mechanism but a cooperation scheme** between ESA and a Partner university to intensify research, development, and outreach.

An ESA\_Lab@ should in particular support inspiration, European identity and cohesion to foster the growth of the space sector.

https://www.esa.int/Enabling\_Support/Preparing\_for\_the\_Future/Space\_for\_Earth/ ESA\_Lab\_Partnering\_to\_innovate

#### 2.3.1 How can an ESA\_Lab@ be established?

An ESA\_Lab@ is established by the Director General of ESA signing a legally nonbinding Memorandum of Collaboration (MoC) between ESA and a Partner university ("**Participants**"). The activities carried out under the MoC will be on a voluntary basis, with each Participant acting in accordance with its institutional and operational framework.



No exchange of funds between Participants is foreseen and each Participant bears the costs of the expenditure it intends to incur in the framework of the cooperation.

The MoC shall contain a description of the possible contributions of each Participant. For specific projects, additional implementation arrangements may be concluded between the Participants in the MoC and with additional partners, such as industry.

#### 2.3.2 Areas of collaboration within an ESA\_Lab@ and ESA

In order to achieve the purpose of an institutional link between ESA and a Partner university, both sides express their willingness to collaborate within an ESA\_Lab@ in the following education and academic areas:

- Promoting topics of research, both internally within the Participants of an ESA\_Lab@ and to the wider industry and public, identified as being of mutual interest to the Participants through the ESA\_Lab@
- Disseminating knowledge through ESA\_Lab@ activities
- Organising and communicating seminars, conferences or events to be developed jointly by the participants on business, academic and space related topics
- Encouraging the contribution of other significant industry or academic parties operating in the space industry through their participation with the ESA\_Lab@
- Implementing activities related to the research themes relevant to ESA.

#### 2.3.3 What is ESA's contribution to an ESA\_Lab@?

#### Specific contribution to an ESA Lab:

ESA is offering several specific in-kind contributions to the ESA\_Lab@ activities. These are:

- Guidance for research and development activities by ESA scientific and technical experts throughout the R&D process and at critical milestones.
- Enabling access to infrastructures (physical or virtual).
- Providing contacts to national and international space entities.
- Support from programme coordinators for sounding and planning of appropriate ESA follow-up initiatives (depending on the results).
- Supporting communication and dissemination activities.



#### General opportunity to participate in ESA OSIP calls

Independent of this direct contributions of ESA to the ESA-Lab@ which are mutually specified by ESA and the ESA\_Lab@ Partner university, the latter always has the opportunity to participate with thematically relevant or interrelated activities in the continuously open calls of the ESA Open Space Innovation Platform (OSIP): https://www.esa.int/Enabling\_Support/Preparing\_for\_the\_Future/Discovery\_and\_P\_reparation/The\_Open\_Space\_Innovation\_Platform.

If selected for funding by ESA such OSIP activities may complement the ESA\_Lab@ activities.

#### 2.3.4 Governance and implementation

The objectives and areas of collaboration to be explored by the Participants will be agreed and implemented through regular consultation between them. Participants will share the leadership of an ESA\_Lab@.

The MoC will be administered through a Steering Committee (SC), in which ESA, the Partner university and FFG will be represented. Each participant will designate primary points of contact/contact persons. The points of contact act jointly as secretary within each organization, facilitating an effective implementation of the MoC.

#### 2.3.5 Use of name, Logo and Trademark

Within the framework of the MoC, Participants authorise one another to use the name, logo and trademark of each other in communications pertaining to the ESA\_Lab@ initiative (<u>https://brand.esa.int/assets/logo/</u>).

#### 2.3.6 Which ESA\_Lab@ activities have been set up to date?

An overview of established ESA\_Lab@s is presented at (status 2020):

https://www.esa.int/ESA Multimedia/Images/2020/02/Existing ESA Labs

Examples for established ESA\_Labs are:

- <u>https://www.uni-wuerzburg.de/satec/news/single/news/esa-labzft-wuerzburg-initiated/</u>
- <u>https://www.ariane.group/de/neuigkeiten/arianegroup-hec-paris-und-esa-erforschen-gemeinsam-die-weltraumwirtschaft-der-zukunft/</u>
- <u>https://www.spacecenter.ch/igluna/</u>
- <u>https://sondra.fr/2020/02/19/lancement-de-lesa-labcentralesupelec/</u>



- <u>https://www.unive.it/pag/14024/?tx\_news\_pi1%5Bnews%5D=7010&cHash=96ae8d97d8ab1f20de90e57522654b23</u>
- <u>https://www.esa.int/ESA\_Multimedia/Images/2017/06/The\_creation\_of\_ES\_A\_Lab\_HEC\_the\_first\_ESA\_Lab\_between\_ESA\_and\_HEC\_Paris\_</u>
- <u>https://www.esa.int/Space\_in\_Member\_States/Germany/Gemeinsame\_Miss\_ion</u>

## 3 ELIGIBILITY

#### 3.1 General approach

The establishment of an ESA\_Lab@ involves the in-kind provision of ESA resources from the mandatory activities, which are proportionally co-funded as part of Austria's contribution to ESA by the Austrian Ministry of Climate Action, Environment, Energy, Mobility, Innovation, and Technology (BMK).

As the engagement in ESA activities is at the core of the Austrian Space Strategy 2030+ "People, Climate and Economy – Space is for everyone" ESA\_Lab@ activities set up in Austria should also complement the strategy's goals and measures.

Therefore, the Austrian national ESA delegation requires potential applicants to meet several quality and organisational criteria according to national priorities before being recommended to conclude a Memorandum of Cooperation (MoC) with ESA.

#### 3.2 Eligibility

Exclusively **Austrian Universities** and **Universities of Applied Sciences** are eligible to submit a proposal for an ESA\_Lab@ and to conclude a co-operation agreement with FFG (as "cooperation partner") and further on a Memorandum of Collaboration with ESA (as "Partner university").

The application has to include information on the planned university resources and written confirmation by the university management that the necessary human and infrastructural resources will be provided for the activities envisaged in an ESA\_Lab@.

As an option to apply as a single entity, Universities and Universities of Applied Sciences can also team up with other research and technology organisations and



industry in a "cooperation group" (consortium) to strengthen the innovation network.

In this case, the cooperation group leader also has to be a University or University of Applied Sciences, which signs the Memorandum of Collaboration as "Partner university" with ESA. Cooperation group partners and the scope of their planned contributions have to be included in the proposal and partners have to provide a Letter of Support describing planned contributions to the ESA\_Lab@ activities. Each partner individually signs the cooperation agreement with FFG beforehand.

FFG reserves the right to exclude applicants due to incompatibilities.





## 3.3 Selection criteria

Applications for ESA\_Labs must demonstrate how they meet the following criteria:

<u>Criteria</u>	Weighting
1. Added value of ESA Lab@ to Austrian partner/partners	25
<ul> <li>Added value of feedback/advise of ESA experts to planned</li> </ul>	
activities	
<ul> <li>Added value of access to ESA infrastructures</li> </ul>	
<ul> <li>Added value of use of ESA name, logo and trademark to planned</li> </ul>	
activities for applicants	
<ul> <li>Added value of ESA to stimulate interest in space and make space</li> </ul>	
more visible to the younger audience addressable by applicants	
2. Added value of ESA_Lab@ to Austrian space strategy 2030+ and	<u>25</u>
ESA	
<ul> <li>Contribution of planned activities to supporting the goals of the</li> </ul>	
Austrian Space Strategy 2030+	
<ul> <li>In general, Goal 5 "Talent and diversity for space", also goals</li> </ul>	
3 "scientific excellence" and 2 "competitiveness"	
<ul> <li>Added value of planned activities for ESA</li> </ul>	
<ul> <li>Scientific, Technical, Network of experts, Outreach</li> </ul>	
<ul> <li>Demonstration of how the intended output of the ESA_Lab</li> </ul>	
activities would contribute to current and future ESA activities	
and missions	
<ul> <li>In general, wrt Austrian contributions to ESA activities</li> </ul>	
- Evidence, that planned activities are connectable to ESA activities	
3. Suitability of project participants	<u>25</u>
<ul> <li>Professional and management competencies</li> </ul>	
<ul> <li>Proven track record of applicants in the proposed field of</li> </ul>	
activities	
<ul> <li>(Potentially) space relevant projects</li> </ul>	
<ul> <li>Selected peer reviewed publications</li> </ul>	
<ul> <li>Institutional anchoring of the activity at an Austrian University or</li> </ul>	
University of Applied Sciences	
<ul> <li>Formal support</li> </ul>	
<ul> <li>in-kind contributions by the University</li> </ul>	
<ul> <li>Securing longer-term support by network partners</li> </ul>	
<ul> <li>Access to network partners</li> </ul>	
<ul> <li>Access of applicants to longer-term basic and third-party funding</li> </ul>	
to support and complement ESA Lab@ activities	
4. Quality of planning	<u>15</u>
<ul> <li>Adequacy of the overall planning and management approach for</li> </ul>	
achieving the goals of the ESA-Lab	
5. Suitability of communication approach	<u>10</u>
<ul> <li>Proposed approach to use the ESA name, logo and trademark for</li> </ul>	
ESA_Lab@ activities	
<ul> <li>Proposed procedure to align communication and dissemination</li> </ul>	



## 4 APPLICATON PROCEDURE

The Call for Expressions of Interest is continuously open until 31/12/2024, 12:00 hours.

The application form is available for download at: <a href="https://www.ffg.at/content/EoIESALab">https://www.ffg.at/content/EoIESALab</a>

Expressions of Interest have to be submitted via email to EolESALab@ffg.at.

Eligible participants: exclusively Austrian Universities and Universities of Applied Sciences.

- The application has to include information on the planned university resources and written confirmation by the university management that necessary human and infrastructural resources will be provided for the activities envisaged in an ESA\_Lab@.
- In case of a cooperation group (consortium), cooperation partners and the scope of their planned contributions have to be included in the proposal.
- Cooperation group partners have to provide a Letter of Support describing planned contributions to the planned ESA\_Lab@ activities.

Expressions of Interest will be evaluated by a Jury composed of ESA experts and the National ESA delegation (FFG and BMK), optionally supplemented by external experts, according to criteria of chapter 3. To be eligible for support, following individual thresholds have to be achieved:

1.	Added value of ESA_Lab@ to Austrian partners	18
2.	Added value of ESA_Lab@ to Austrian space strategy and ESA	18
3.	Suitability of project participants	18
4.	Quality of planning	11
5.	Suitability of communication approach	7

If additional information is required applicants are invited to improve the application once.

Successful applicants will be invited to conclude a co-operation agreement with FFG. The agreement will i.a. foresee arrangements for:

- Areas of activities
- Kick off and progress meetings
- Coordination and approval of public relations and press activities





After signing the co-operation agreement with FFG, the national ESA delegation will issue a Letter of Support to ESA and applicants will be invited by ESA to conclude a Memorandum of Collaboration to establish an ESA\_Lab@XYZ.

Depending on the required ESA in-kind contribution ESA and FFG reserve the right to limit the number of ESA\_Labs@.

**Bundesministerium** Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie



## 5 CONTACT

Please contact FFG regarding the application procedure, selection criteria and cooperation agreement with FFG:

Dr. Andreas Geisler FFG Aeronautics and Space Agency T: +43 (0) 57755-3001 andreas.geisler@ffg.at

ESA will be at your disposal with regard to clarifications on running an ESA\_Lab@ and the content of the Memorandum of Collaboration:

#### **Elisabeth Sourgens**

Director General's Services Foresight, Strategy & Coordination Department (DG-5) <u>elisabeth.sourgens@esa.int</u> T +33 1 53 69 7674