

THE LIVING PLANET FELLOWSHIP

Call for research proposals 2025



#E04SOCIETY

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1 INTRODUCTION

This document describes the main elements of the **ESA Living Planet Fellowship (LPF) Call for Proposals 2025**.

The LPF aims at supporting the new generation of scientists in ESA Member States to undertake cutting-edge research in Earth Observation and Earth System and Climate Science, maximise the scientific impact of ESA missions and European EO capacity and respond to the main challenges of the new ESA Earth Observation science strategy: [Earth Science in Action for Tomorrow's World](#).

This call is motivated by the urgent need to foster the new generation of scientists to develop advanced science-based solutions that respond to the major challenges that society is facing in the onset of this century.

In the next decades population growth is expected to amplify current pressures on critical resources such as fresh water or food, intensify the stress on land and marine ecosystems and increase environmental pollution and its impacts on health and biodiversity. These problems will be further exacerbated by global warming and the likely impacts of climate change in the Earth system.

Addressing these challenges will require a quantum leap in our capacity to observe, understand and predict complex and inter-connected natural and anthropogenic processes occurring at different spatial and temporal scales, as different interactions and feedbacks among the components of the Earth system and human activities have reached a scale where abrupt global environmental change can no longer be excluded.

Europe has now a unique opportunity to lead the global scientific efforts to address these challenges. Today Europe relies on the most comprehensive and sophisticated space-based observation infrastructure in the world, including an extraordinary and complementary suit of sensors on board of the Copernicus Sentinels series, the ESA's Earth Explorers, the coming meteorological missions and different EO observation satellites operated and planned by national space agencies and private operators in Europe.

The unprecedented potential of this exceptional system of systems is far from being reached and the huge synergistic opportunities offered by the combination of the wide range of different observations available is still unexplored. This exceptional capacity needs to be unlocked by fundamental science and shall be further amplified by new digital technologies such as big data and artificial intelligence which are leading to major transformations in Earth observation and open up a wealth of opportunities for Earth Science.

With this call ESA plans to support a new set of research post-doctoral positions to be co-funded by ESA with a maximum overall contribution of 200KEuro. This call includes also optional opportunities: e.g.,

- **Support for small ground-based experiments and in-situ data collection**
- **A visiting scientist scheme to collaborate with another Institute/Laboratory**
- **A visiting scientist scheme to join the ESA Earth System Science Hub**
- **Access to cloud computing resources and digital platform services**

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2 OBJECTIVES

The main objective of the **Living Planet Fellowship** is:

*"to support young scientists, at **post-doctoral** level, to undertake **cutting-edge research** in Earth Observation, Earth System Science or Climate Research, **maximising the scientific return** of ESA and European EO missions and datasets through the development of **novel EO methods, techniques and products**, and by delivering **excellent scientific results addressing key science questions in the [ESA EO science strategy](#)**, enabling improved predictions of the physical interaction of society with the Earth system"*

The Living Planet Fellowship aims to achieve this objective by:

- **Enabling leading edge research to be undertaken by the new generation of scientists** with focus on major scientific challenges and knowledge gaps in EO, Earth system and climate science that may contribute to respond to the urgent societal needs underpinning the European and global environmental and development agendas.
- **Maximising the scientific impact** of the unique and unexplored opportunities offered by the increasing European space-based observing capacity (Sentinels, Earth Explorers, meteorological missions, national and commercial missions) complemented with 3rd party mission data, existing long-term EO-based data records (e.g., ESA heritage mission data, CCI ECVs), in-situ data and citizen observations.
- **Promoting an open science approach** where sharing data, results and knowledge is at the core of the scientific value chain.
- **Capitalising on novel and emerging technologies**, incorporating platform technologies, advances in ICT, data intensive science and Artificial Intelligence as amplifier and accelerator of science.

3 IMPLEMENTATION

The initiative will be implemented through a number of dedicated research projects proposed and carried out by young scientists, at post-doctoral level, hosted by universities, laboratories and technical centres in ESA Member States.

With this call for proposals, ESA will select and **co-finance a number of post-doctoral projects** (See details in **Conditions and contract with the Host Organisation** below) proposed by new scientists through their Host Organisation responding to the following principles:

Candidate Eligibility:

- Candidates must have received a Ph.D. research degree in Earth science, physics, engineering, Earth observation or a related discipline after the 1st January 2018. Scientists that obtained the PhD before this date may be exceptionally admitted to this programme if, at the time of the proposal's submission, they have completed less than 8 years research experience after the award of the PhD (i.e. including any research career breaks). For such an exception to be accepted a detailed explanation for the research career break shall be provided as an appended letter from the host institution. Career breaks for family or health circumstances (if duly justified) are both acceptable reasons.
- Candidates must have a nationality from an ESA Member and Associated State participating to the FutureEO-1 Segment 3 (2025-2027) Programme (see [FAQ](#) for Host Organisation country eligibility).

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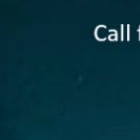
Host Organisation:

- The initiative will be implemented through 2-year contracts placed with selected Host Organisations (e.g., university, technical centre, laboratory, company) from ESA Member and Associated State participating to FutureEO-1 Segment 3 (2025-2027) Programme (**Please see [FAQ](#) for Host Organisation eligibility criteria**).
- The Host Organisations shall co-fund the research position of the Candidate (as a standard post-doctoral research contract) for the entire duration of the project. Co-funding shall cover a minimum of 30% of the overall cost of the post-doctoral activity and may include cost associated to overheads, travel support, cost of publications, contributions in kind, data and part of the candidate salary and emoluments, if needed (purchase of computers, equipment, software or any other material beyond data cannot be included in the costs).
- The Host Organisation shall confirm (via the required letter of support) the availability of the Candidate and the possibility of the Host Organisation administration to initiate the project within the 1st quarter 2026.
- **Only one Candidate** will be selected for any single organisation (understood as a Faculty or Institute inside large research institutions or universities) to maximise the geographical distribution and avoid a concentration of candidates in the same centre.
- Selected candidates will be the Principal Investigators of the research project, while a representative of the Host Organisation (e.g. a full professor, faculty member or a member of the scientific staff of the Host Organisation) shall serve as the principal ESA contact for administrative and contractual matters.
- Selected candidates will work full-time on the research projects proposed in their applications and will be based at the proposed Host Organisation during the entire period of the research contract, except for the optional research periods in an ESA centre or temporal visits to other research laboratory.

Programmatic Areas:

Candidates shall propose a 2-year research plan contributing to at least one of the following areas:

- Advancing Novel Methods and Techniques:** Targeted research projects aimed at developing innovative methods, novel algorithms and new EO products and datasets expanding the scientific use of the Sentinel missions, the Earth Explorers or the ESA long-term data archives into new scientific areas and application domains. Activities shall establish a solid basis to expand the missions' product portfolio and stimulate novel science results and innovative applications. Priority will be given to develop and validate novel algorithms, data processing techniques, advanced methodologies and new EO-based products that may maximise the novel capabilities offered by the Sentinel missions, the unique data offered by the Earth Explorers, the long-term series of ESA data archives, and its synergies also in combination with meteorological and non-ESA missions.
- Advancing Earth System and Climate Science:** Cutting-edge scientific activities aimed at maximizing the scientific impact of ESA and European missions in terms of new discoveries and advances in Earth system science addressing the challenges of the ESA EO Science Strategy. Projects shall contribute to answer major open questions in Earth system and climate science, addressing global scientific challenges and community priorities posed by international Earth System Science communities and international science groups (e.g., WCRP, Future Earth, SOLAS, GCP, etc...).
- Advancing Data-driven Earth System Simulations and Predictability Science:** Scientific activities aiming at advancing the state-of-the-art in data-driven Earth system simulations and predictability science bringing together EO data, advanced models and AI and ML techniques (e.g., foundation models) to deliver a quantum leap in our capacity to simulate and predict the dynamic evolution of the Earth system with special focus on exploring the potential of AI and hybrid approaches to overcome the fundamental limitations in current modelling approaches to characterise different components of the Earth system with especial focus on extremes events, their drivers and impacts.



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- D. **Activities in Support of the Sentinel User Preparation Programme:** scientific research aimed at preparation of European entities to exploit the opportunities offered by the future Copernicus Sentinel Expansion and Next Generation missions. Projects shall contribute to establishing a solid scientific basis for novel methods, algorithms and products beyond core mission objectives with a special focus on exploring the scientific opportunities offered by the huge synergistic potential across missions in all domains of Earth system science. Activities are expected to be based on "proxy" data (similar sensors and data types that could be used to simulate the coming Sentinel missions), in-situ and airborne campaigns or even simulated data.

Proposals shall identify the scientific theme to be addressed from the ESA EO Science Strategy and the relevant science question/s.

Priority will be given to activities that maximise the scientific return of ESA and European EO assets including Sentinel, Earth Explorers and Meteo mission data, national missions, the long-term ESA archive and existing EO-based long-term datasets (e.g., ESA project results, CCI data) in terms of innovative scientific results, novel datasets, new techniques, advanced scientific tools and high-impact publications.



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Scientific proposal:

- Proposals shall be submitted to ESA via the dedicated LimeSurvey online tool, as indicated on the Living Planet Fellowship call page (please refer to Section 5 – Scientific Proposal for full details)
-);
- The project results in terms of final reports, scientific results, algorithm, geo-information products, etc., shall be publicly available through the relevant ESA web sites. In addition, proposals shall include a plan for publications in international peer review journals as well as a travel plan to key international conferences;
- The projects shall explicitly acknowledge ESA's Living Planet Fellowship funding scheme (including the acronym of the project) in any single journal paper and conference proceedings containing results obtained in this framework.

Data access:

- Selected candidates will be responsible for accessing the required ESA and non-ESA data.
- In case of need for Third Party Missions products and other ESA products requiring an ESA approval, product quotas will be decided following standard ESA procedures.
 - <https://earth.esa.int/eogateway/missions/third-party-missions>
 - [ESA Third Party Missions List](#)
 - <https://exploringearth.eo.esa.int/>
- Candidates shall detail in their proposals the complete list of ESA data (including ESA 3rd party missions) that will be required to carry out the project.
- Candidates are encouraged to make use of additional data sources, especially non-ESA datasets and in-situ data. The Candidate or the Host Organisation shall demonstrate in the proposal the availability of all the required data sets to accomplish the proposed work.

Scientific communication, publication costs and conference fees

The candidate shall maximise the impact of the project results through a scientific communication plan. This shall include the promotion and communication of the results through dedicated publications in peer reviewed journals and presentations in international conferences and workshops.

Additionally, the candidate shall have a dedicated space on the eo4society.esa.int website (hosted and maintained by ESA) and shall be responsible for providing all the necessary relevant content updates (publications, project results, any other news relevant to the project) throughout the duration of the project.

Candidates shall provide in their proposal both a preliminary list of expected publications and a plan related to conferences and workshops participation to promote the project and its results.

Conditions and contract with the Host Organisation:

- For selected project proposals, ESA will place a contract with the Host Organisation for a maximum of **200KEuro per 2-years**, as a co-funding contribution to a standard post-doctoral position.
- ESA funding shall contribute to cover at maximum 70% of costs associated to the salary, travel and publications of the Candidate.
- The Host Organisation shall provide a post-doctoral contract to the selected candidate to undertake the research activity proposed for the 2-year period of the project.



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- The Host Organisation shall contribute with, as a minimum, 30% of the overall cost for the two years. This contribution may cover: e.g., overheads, travel support, cost of publications, material, contributions in kind and/or part of the candidate salary and emoluments, if needed.
- A preliminary travel cost plan shall be provided in the proposal (see requirements related to meetings and workshops participation in the Section below).

Managing and reporting:

- The Candidate shall participate (mandatory) to the following review meetings (to be included in the work and travel plan):
 - **Kick-off Meeting** to be organised by teleconference at T0 (start date);
 - **Mid Term Review** at the end of the first year of activity (T0+12);
 - **Final Review** at the end of the activity (T0+24).

ESA plans to organise an annual workshop to present and discuss the progress of all Living Planet Fellowship projects where the participation of all Fellows is expected. In principle the workshops will be organised in an ESA establishment (normally in ESRIN). Where possible the reviews above will be organised as part of this event. Specific details on the venue will be communicated in due time to the selected candidates.

- The following reports shall be submitted through a dedicated ESA online tool (link and access credentials will be provided to the Candidate after the Kick -off meeting):
 - **Bi-monthly Progress Report:** short management document describing the main progress and status of the project, problem areas and proposed solutions;
 - **Mid-term report:** Scientific report (due at K0+12 months) describing in detail the work carried out and scientific results obtained during the first year of activity.
 - **Final report:** Scientific report to be publicly available describing in detail the overall activity, methods developed and final scientific results obtained throughout the project. This should include a list of publications produced.



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4 OPTIONS

In order to support the proposed activity and further contribute to the scientific formation of the candidate, ESA offers the following additional options to be considered in a case by case basis.

The scientific success of the project shall not depend on the approval or not of these options and proposal evaluations will not take these options into consideration. However, the candidate is required to provide in their proposal a preliminary indication of their preference for any of the options below.

In addition, ESA reserves the right to consider or not these options depending on ESA priorities and funding available.

Option 1 - Short visiting research periods in European or International Research Centres:

During the execution of the project, candidates can submit at any time proposals to undertake research periods up to 6 months at research institutions in ESA Member States or internationally (in a different country from the Host Organisation), as visiting scientists. During this period, selected candidates shall complete part of the proposed work in collaboration with relevant researchers of the visited organisations.

Candidates shall point out in their proposals the tentative dates for the visiting period and the main contact at the visited organisation. A short description of the proposed work to be carried out in this visit shall also be included in the proposal.

If approved, this option will be supported with an additional amount of **2,000 Euros** per month during the duration of the visiting period (to be implemented as a change to the ESA contract). This lump sum shall include all the ESA contribution to cover travel and living expenses.

Option 2 - Associated Scientist at ESA Earth System Science Hub in ESRIN:

During the execution of the project, candidates can submit proposals to join the ESA Earth System Science Hub in the ESA centre of ESRIN in Frascati (Rome).

This option involves a visit of 3 to 12 months to be undertaken in a single period or different shorter periods to be agreed with ESA.

The Science-Hub is a new advanced Earth System Science facility in ESA working as a core centre and laboratory for networking and scientific collaboration among world class researchers in MSs and worldwide. The proposed facility will bring together young and senior scientist of different disciplines in Earth Observation and Earth system science to work together and undertake collaborative research promoting a community response to the main science challenges of our decade.

The overarching goal for the new Science Hub is to bring together different expertise and capabilities in MSs and worldwide to jointly develop a community science-based solution of "Digital Twin Earth": i.e., an advanced replica of our planet its processes and interactions with the human activities based on the latest advanced in EO technology, advanced modelling and AI.

The initial priorities of the Hub focus on developing an advanced, comprehensive and consistent 4D dynamic reconstruction of the Earth system.

The Hub is an integral part of a new strategy to implement the scientific exploitation programme of ESA and will serve as a catalyser for new ideas and scientific breakthroughs in EO and Earth system science.



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Candidates shall indicate in their proposals their interest for this option and provide the tentative dates for the visiting period. A short description of the proposed work to be carried out in this visit shall also be included in the proposal.

If approved, this option will be supported with an additional amount of **2,000 Euros** per month (to be implemented as a change to the ESA contract and related payment plan). This lump sum shall include all the ESA contribution to cover travel and living expenses.

The maximum contribution from ESA for Options 1 and 2 combined shall not exceed 24,000 Euros.

Option 3 - Contributing to in-situ data collection and ground experiments

During the execution of the project, selected candidates can submit at any time proposals to ESA to undertake dedicated in-situ campaigns and ground based experiments to complement the projects and enhance the proposed research.

This may include dedicated field experiments, collection of in-situ data or contributions to 3rd party campaign activities: e.g., by adding an additional experiment to a larger existing campaign.

The Candidate or Host Organisation shall detail in the proposal the experiment proposed as well as the resources required to achieve the scientific objectives of the experiment.

If approved by ESA, an additional maximum amount of **15,000 Euros** will be provided to cover the costs associated to Option 3 in the form of a change to the ESA contract and related payment plan.

Option 4 - Access to cloud computing resources and digital platform services

During the execution of the project, selected candidates may submit at any time proposals to ESA to access cloud computing resources offered through the ESA Network of Resources (NoR) (<https://nor-discover.org/>).

The Candidate or Host Organisation shall detail in the proposal the processing resources required to achieve the scientific objectives of the study proposed and the associated cost.

If approved by ESA, an additional maximum amount of 10,000 Euros will be provided to cover the costs associated to Option 4 in the form of a change to the ESA contract and related payment plan.

The maximum contribution from ESA for Option 4 shall not exceed 10,000 Euros.

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5 SCIENTIFIC PROPOSAL

- Proposals shall be submitted to ESA through the dedicated LimeSurvey online tool at the following [link](#) and must include as attachments: the template provided for the LIVING PLANET FELLOWSHIP PROJECT PROPOSAL, a CV of the candidate – including list of publications - and 3 letters of support (one from the Host organization and 2 from Senior Scientists in the relevant field);
- The project results in terms of final reports, scientific results, algorithm, geo-information products, etc., shall be publicly available through the relevant ESA web sites. In addition, proposals shall include a plan for publications in international peer review journals as well as a travel plan to key international conferences;
- The projects shall explicitly acknowledge ESA's Living Planet Fellowship funding scheme in any single journal paper and conference proceedings containing results obtained in this framework.

Proposal Submission:

- Proposals shall be submitted **before 28/09/2025 (at 24:00 CET)** through the LimeSurvey online tool at the following [link](#), including (as attachments):
 - The research proposal (LIVING PLANET FELLOWSHIP PROJECT PROPOSAL);
 - A letter of support from the Host Organisation supporting the candidate and his/her project proposal;
 - Two additional letters of support from senior scientists in the relevant field, supporting the candidate and the scientific proposal;
 - A CV of the candidate including a list of publications;

Host organizations of successful proposals shall receive a Living Planet Fellowship Agreement Letter that shall be accepted without any reservations except in the case that national laws do not allow conditions to be accepted in the partnership agreement.



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- Any additional questions relating to this Call shall be submitted to EOScience@esa.int not later than two (2) weeks before the Closing Date.

Selection process

Proposals will be selected on the basis of a peer review process by a Scientific Committee including members of Scientific Advisory Bodies to ESA and ESA senior staff. The selection process will be carried out on the basis of the following criteria:

1. Scientific background and experience of the Candidate;
2. Scientific background and experience of the Host Organisation, as well as adequacy of the proposed laboratory facilities, data sets availability;
3. Required EO data and planned use of ESA data and European missions, with main focus on Earth Explorers or Sentinels;
4. Relevance of the proposed work with respect to the specific areas of interest and ESA EO Science Strategy;
5. Excellence of scientific proposal demonstrating a contribution to science beyond the state of the art and providing a significant advancement with respect to the specific objectives of the programmatic areas of interest;
6. Adequacy of the proposed methodology, work plan, scientific approach, proposed EO data procurement and available data sets;
7. Impacts of concrete project outputs in terms of scientific results, data sets, products, models and target publications and potential further developments;
8. Financial capacity to perform the project.

After the selection process, ESA will send an e-mail to all candidates informing them about the outcome of their application.

2.2. Planned Scheduling

Description	Date
Call issue	16 th July 2025
Submission of Proposals deadline	28 th September 2025
Communication of Results (tentative)	4 th Quarter 2025
Contracts placements (tentative)	1 st Quarter 2026
Beginning of Activities (tentative)	End 1 st Quarter 2026



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6 SUMMARY AND CHECKLIST

Requirement	Description
Budget per study	ESA will support the selected projects under a co-funding scheme for a maximum budget of 200KEuro per 2 years excluding any options . If all options are activated by ESA then the maximum budget is 249KEuro.
Candidate	Candidates must have received a Ph.D. research degree in Earth science, physics, engineering, Earth observation or a related discipline after the 1 st January 2018. If the diploma is not yet available at the time of submission, the candidate must provide proof of having defended the thesis positively before the proposal submission deadline . The Candidate must provide a copy of the diploma once received.
Host Organisations	Host Organisations from ESA Member and Associated States participating to FutureEO-1 Segment 3 (2025-2027) Programme are eligible to submit an offer in answer to this Call for Research Proposal. Required co-funding contribution from the Host Organisation shall be, at least, the 30% of the overall cost of the project.
Duration	Projects shall have a duration of 2 years (24 months) from the start date (kick-off date).
Project objectives	Project objectives shall clearly contribute to one of the ESA EO Science Strategy overarching scientific themes
Use of ESA data	Projects shall maximise the use of ESA data.
Participation to Conferences	ESA funding should also cover both cost of publications and the participation of the Candidate to review meetings, international conferences and symposiums to present the research work.
Outputs and results	Proposals shall clearly specify the project outputs in terms of assets: scientific results, data sets, products, models and targeted publications.
Option 1 or 2 - Visiting or Associate Scientist periods	The candidate can include as an option in the proposal the possibility to carry out either: a research period in an ESA centre or another institution as a visiting scientist during the project (Visiting Scientist), or a research period of minimum 3 to a maximum of 12 months to be undertaken in a single period or in shorter periods of 3-6 months at the ESA Earth System Science Hub in the ESA centre of ESRIN (Associate Scientist).
Proposal documentation	Proposals shall include: <ul style="list-style-type: none"> • The research proposal (see template for the LIVING PLANET FELLOWSHIP PROJECT PROPOSAL); • A letter of support from the Host Organisation supporting the candidate, his/her project proposal • Two additional letters of support from senior scientists in the relevant field, supporting the candidate and the scientific proposal; • A CV of the candidate including a list of publications.
Reporting	Reporting (online through ESA dedicated tool) shall include as a minimum: <ul style="list-style-type: none"> • <i>Bi-monthly progress report</i>; • <i>Mid-term report</i>; • <i>Final report (extended version and executive summary)</i>.
Review meetings	Participation at the review meetings (at K0+12, at the end of the first year and at the end of the project) is mandatory and shall be included in the travel plan. This shall include commitment to a seminar at the ESA ESRIN Science Hub at the end of the project.

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Please refer to the [Frequently Asked Questions](#)

For further clarification please contact us at the following email: eoscience@esa.int

