



ESA ESRIN
Largo Galileo Galilei 1
00044 Frascati
Italy

OPPORTUNITY FOR AFRICAN RESEARCH FELLOWSHIPS 2026

Prepared by	Giuseppe Ottavianelli EOP-SGA
Document Type	PR - Procedure
Reference	ESA-EOP-SG-PR-0788
Issue/Revision	1 . 3
Date of Issue	06/02/2026
Status	Approved



Table of Contents

1. Overview of Future EO, Earth Action and EO AFRICA initiative 3

2. Overview of activity proposed 4

3. Required education and skills 5

4. Fellowship logistics related aspects 5

1. Overview of Future EO, Earth Action and EO AFRICA initiative

FutureEO is ESA's Earth Observation research and development programme.

By means of FutureEO, ESA pioneers world-class Earth science missions, innovative concepts and technologies. The Programme provides the basis to increase the collective understanding of our evolving planet and the development of actionable information in tackling serious global environmental issues and the resulting challenges, including urgent societal challenges and climate change. It is a key vehicle to nurture industrial return, competitiveness and growth and it underpins the development of all future ESA EO missions including operational satellites. Thanks to its envelope approach implemented in continuous successive periods, FutureEO offers a clear uninterrupted long-term perspective for the future, while retaining the flexibility and agility to adapt to emerging challenges. The agility of FutureEO offers room for manoeuvre, with provision to adapt to emerging challenges and opportunities for daring new observing ideas to be tested, opening the door even wider to innovation.

FutureEO encompasses a comprehensive portfolio of end-to-end activities and diverse needs, ranging from the Earth-Explorers to activities rapidly responding to scientific, technological and data-oriented demands such as Earth Action. Earth Action is a pillar of FutureEO, encompassing activities that deliver the full benefit of EO program for science and society. Activities are developed in partnership with other stakeholders beyond the space sector, forming partnerships with governments, international and national organisations, Earth science communities, businesses, and citizens to ensure a resilient green future. By developing robust and accessible Earth observation information, Earth Action supports science-for-policy and green business solutions to urgently address global challenges that society faces today and will face tomorrow. A key focus is fostering both incremental and disruptive innovation to tackle climate change challenges, positioning Earth Action as a business opportunity that offers global competitive advantages too.

EO AFRICA is an ESA initiative nested within Earth Action, the acronym stands for African Framework for Research, Innovation, Communities and Applications Building an African-European R&D partnership. The EO AFRICA initiative aims to build an African-European R&D partnership to facilitate the adoption of Earth Observation and related space technology in Africa, in full coordination with the operational GMES & Africa initiative led by the AUC and its specialised Agency, the AfSA, and takes into account requirements and capacities from African regional centres and programmes. The initiative is driven by African user needs, and following a long-term vision (>10 years) for the emergent digital era in Africa.

2. Overview of activity proposed

The African Research Fellow may propose an R&D topic in relation to one of the following EO AFRICA Research Themes:

- Agriculture and Food Security: Precision agriculture, crop yield modelling, pest and disease monitoring, resilience analysis.
- Disaster Risk Reduction and Response: Early warning systems, impact forecasting, vulnerability mapping.
- Urban Development and Infrastructure: Urban change detection, infrastructure monitoring, classification of informal settlements.
- Health and Epidemiology: Research on disease vectors, pollution exposure, environmental health correlations.
- Energy and Natural Resource Management: Mapping renewable energy potential, forest/water resources management, monitoring extractive activities.
- Climate Change and Natural Capital: Ecosystem degradation research, climate impact modelling, carbon tracking.
- Coastal and Marine Monitoring: Fisheries management, coastal erosion monitoring, marine ecosystem assessments.
- Calibration and Validation (Cal/Val): Deploying in-situ sensors, organizing field campaigns to improve EO product accuracy.

The R&D activity shall contribute to a growing repository of African-led EO tools, support evidence-based policy, and strengthen Africa's role in the global scientific community.

In relation to the R&D topic proposed by the ARF, the activity will include the following tasks:

- Review of the relevant policy frameworks.
- Literature review (e.g. multi-mission perspective, algorithms, models, assimilation methods).
- EO application development with an agile approach and the related publication of an open source Jupyter notebook algorithm.
- Quality assessment of the developed methods with scientifically robust validation steps.
- Submission of a paper to at least one scientific journal.
- Production of final presentation material.

The activity will be coordinated and aligned with the EO AFRICA Initiative which would provide training opportunities and scientific tools for the selected African research fellows.

Fellows will gain access to:

- ESA supported cloud computing resources (e.g. EO Africa Innovation Lab, Space-HPC...) to facilitate collaboration with European scientists in implementing research ideas.
- The EO AFRICA Space Academy and Digital Campus, which offer dedicated training, scientific tools, and a wealth of expertise to support your project.
- A professional network that promotes open research practices and reproducible science.

The selected Fellows are expected to start activities in ESA-ESRIN (Frascati) in October 2026.

3. Required education and skills

- Research Proposal (see template)
- CV with the most recent publication list (maximum 3 pages).
- Copy of Passport with no less than 6 months validity
- Scan of the highest academic diploma (PhD or Master's).
- Two (2) signed letters of reference.
- Approval of privacy statement

4. Fellowship logistics related aspects

- 1-year length fellowship. Not extendable.
- Start date October 2026
- Computer Laptop/Desktop provided by ESA
- Shared office in ESA/ESRIN
- Support to obtain VISA through Ministry of Foreign Affairs (i.e. MFA/MAE) (*)
- ID card from Italian Ministry of Foreign Affairs (i.e. MFA/MAE) Card and Codice Fiscale (**)
- Assistance for opening Bank account at ESRIN
- Option to request housing hunting service (***)
- As for the personal health/accident/civil responsibility insurance, the ARF will have to arrange autonomously his/her own insurance coverage. If needed, ESA/ESRIN can provide contacts with:
- UniPol: <https://www.unipol.it/en>
- Travel to/from original country (3000 EUR for travel)
- Standard International Research Fellow salary (circa 2500 EUR x 12 months)
- Scientific network activities (e.g. conference) (maximum ceiling of 2000 EUR)

(*) For non-EU nationalities, the staff member must request prior to arriving to Italy a type-D Visa at the Italian Consulate where he/she resides. ESA will provide the staff with a letter which will facilitate the Visa request, but to do this ESA will need a copy of the passport and the name and address of the Consulate where the request will be submitted.

(**) The MFA/MAE Card is issued once the staff member is here in Italy and will exempt him/her from requesting the "permesso di soggiorno" in case of non-EU nationals. At Take Up Duty ESA will be asking for some information/documentation to initiate the process, but beforehand ESA will need a copy of a valid passport of each staff member (i.e. valid for at least six months from the moment the staff is here in Italy). Once the staff is here in Italy, with the type-D Visa, a valid passport and other information, ESA will submit the request to the Ministry of Foreign Affairs for the MFA/MAE Card. Standard time frame of delivery of the MFA/MAE Card is about 2 weeks, but it could take more depending on the Ministry's workload. The Codice Fiscale is also released via ESA Facility Management.

(***) House hunting service is outsourced to an external company with whom ESA has an agreement.

The ARF can either search on his/her own or may avail of the assistance of the relocation company. The ARF may choose freely, but should they decide to request the relocation service's help, they will have to commit to their assistance. Although ESA will pay the service package, please note that if the ARF wishes to use the relocation company to assist in finding a home, he/she will be charged the relocation company's fee which is normally one (1) month's rent or 10 – 15% of the annual rent plus VAT.