

# **OeAW Earth System Sciences (ESS)**

## Special Funding Call "Future Soil"

Call I: theory-driven research

Call begins: 15.11.2023

Submission deadline: 15.02.2024

#### Introduction

Life depends on soil. Healthy and sustainably managed soils are essential to our existence, providing food, clean water, habitats for biodiversity, and contributing to climate resilience. Unlike the quality of air and water, we often take these services for granted – but in fact, soils in Europe and globally are a scarce, non-renewable, and highly threatened resource. 60-70% of soils in the EU are in an unhealthy state, mainly due to unsustainable agricultural practices. Climate change exacerbates the pressure on this vital resource. The EU mission "A Soil Deal for Europe" (referred to as "Mission SOIL" hereafter) aims to support Europe towards sustainable soil management as part of the comprehensive green transition in urban and rural areas. The mission aims to establish 100 living laboratories and lighthouses to lead the transition towards healthy soils by 2030. Mission SOIL is also part of an overarching EU strategy aimed at mission-oriented solutions to address pressing societal challenges in health, climate, and the environment.

As part of the Earth System Sciences (ESS) research program and financed by the National Foundation for Research, Technology and Development, the OeAW is using this call to promote the prioritization of research aligned with this mission.

#### **Target Group**

This funding program targets soil researchers working within Austrian research institutions. Projects may be submitted by individuals or groups of up to three researchers from different disciplines, recognizing the interdisciplinary potential of soil-oriented research. Gender balance must be considered when submitting applications and implementing projects, and young researchers are specifically invited to apply.

### Objective of the Call

The aim of this call is to enhance the Austrian research landscape with regard to Mission SOIL and associated Austrian RTI goals. The aim is to foster networking among stakeholders from the scientific community and other sectors (business, communities, citizens, agriculture, etc.). Eligible projects are those conducted at Austrian research institutions addressing one or more of the eight specific goals outlined by Mission SOIL:

Reduce desertification

Conserve and improve soil organic carbon stocks

Stop soil sealing and increase re-use of urban soils

Reduce soil pollution and enhance resilience against external impacts

Prevent erosion

Improve soil structure to enhance soil biodiversity

Reduce the EU global footprint soils

Improve soil literacy in society

The applications should enable local solutions to global problems. We expect both the analysis of the current situation and the development of possible strategies. The focus is always on soil as a provider of extensive ecosystem functions and sustainable management. Citizen science approaches are welcome, as are highly inter- and transdisciplinary projects.

The project should focus in particular on the following points:

Soil protection and fertility, e.g.:

- Healthy soil and food
- Soil compaction and structure
- Soil organic matter dynamics and understanding of processes
- Nutrients in the soil (especially phosphate) and nutrient recycling
- Pollutants and microplastics: influence on soil organisms and their activity
- Soil biodiversity review of the principles, meta-analyses of existing indicators as a basis for the development of new methods for analyzing soil biodiversity

Other specific questions of interest include:

- Carbon farming (e.g., influence on greenhouse gases; role of subsoils, deep-rooted plants, grassland management, drainage removal)
- Agroforestry (soil organic matter, biodiversity, productivity, etc.)
- Permafrost, peatlands, and mountain soils (role in carbon storage, influence of climate on soil resources, biodiversity, etc.)
- Agrophotovoltaics (sustainable land use, biodiversity, soil organic matter, productivity, etc.)

Topics related to natural hazards:

Mudflows, sediment loads, and torrent control

#### **Application Requirements**

- Submissions can be made individually or as a group of up to three researchers.
- In the case of a group application, one of the applicants acts as the coordinator and, if approved, as the corresponding PI of the project.
- Applications must be submitted in English to facilitate international assessment.
- Each applicant may participate in only one application.
- Applicants must be willing to actively participate in public presentations of the ESS program and to take part in related events.
- Cooperation with international partners is welcome, but the project management must be based in Austria. A maximum of 25% of the funding may go to foreign partners; the allocation of funds to foreign project partners must be justified. Consent from the participating institutions to carry out the project, if approved, must be included with the application.
- An institution can support multiple applications.

## **Funding Duration**

- Maximum 24 months

## **Funding Amount**

Each project can receive a budget ranging from a minimum of EUR 200,000 and a maximum of EUR 320,000. The total funding available for both calls is EUR 2.0 million. The requested funding should include overhead costs amounting to 10% of the direct project costs. Please use <a href="the budget table">the budget table</a> provided.

The following direct costs can be requested:

- Personnel costs (including the expected adjustments)
- Cost of consumables
- Travel expenses
- Other costs (e.g., research infrastructure or equipment costs, software, commissioning of external services, etc.)

### **Application Procedure**

The call is open nationwide in Austria and follows a one-stage application process.

- Initiation of the call: 15.11.2023Submission deadline: 15.02.2024
- Application: The fully completed application form and a full application of up to 15 pages (including implementation of the work packages, a Gantt chart, description of the project partners, as well as relevant publication lists and short CVs) should be sent by the applicant or coordinator on time via email to <a href="mailto:ess-calls@oeaw.ac.at">ess-calls@oeaw.ac.at</a>. Detailed CVs and declarations of consent from the participating institutions can be submitted in the ANNEX in the form of a .zip folder, if possible in the form of a download link.
- All submissions received on time that meet the necessary formal application requirements (see Application Requirements) will be assessed internationally and then submitted to an independent international jury.
- The award decision by the independent international jury and the OeAW Presiding Committee is **expected to be announced in the summer of 2024**. Applicants will be notified of the result.
- Project commencement is anticipated for Q4 2024.

By submitting their proposal, applicants acknowledge that the associated data and documents will be shared with jury members and reviewers for evaluation purposes to determine funding allocation.

## **Funding Terms (excerpt)**

- Selected projects must commence by December 1, 2024, at the latest and have a maximum project duration of 24 months. A funding agreement will be concluded with the project leaders. In justified cases, a cost-neutral extension of the project duration, up to a maximum of 6 months, may be granted.
- An annual report must be submitted on the progress of the project and the use of funds. Any planned changes to the project plan must be promptly communicated to the ESS program management. Unreported changes may result in project discontinuation. It is at the discretion of the program management to accept changes or to have them evaluated externally and, if necessary, to reject them.
- At the end of the project, a comprehensive final project report must be submitted, which will be subject to an evaluation. The project is considered completed only after successful evaluation of the project results.