

CALL

## EARTH SYSTEM SCIENCES

**Deadline: November 15, 2023 (1PM CET)**

Geosciences



1-2 junior professorships with tenure track per location



Up to 1.5 million euros per junior professorship



6 years



Universities in Germany with a focus on geosciences



Applications must consist of a strategic concept by the university and a research agenda by the candidate for the junior professorship



Additional funding available for science outreach and communication and/or for the preparation of research data for reuse (Open Science)

7 months



# 1

## OBJECTIVES

By funding strategically oriented tenure-track junior professorships, the Volkswagen Foundation aims to contribute to the establishment of Earth System Sciences in research and teaching. Many of the most pressing challenges of the Anthropocene, such as climate change or damage to ecosystems due to overexploitation of natural resources, require a holistic view of the Earth. The Earth needs to be understood as a complex system and the interaction and dynamics of its components need to be considered more closely.

The Leopoldina Report on Tomorrow's Science "Earth System Science – Discovery, Diagnosis, and Solutions in Times of Global Change" <sup>1</sup> describes the need for systemic thinking and the integration of academic education and research, which is currently fragmented into a multitude of disciplines. These are indispensable for understanding global processes – including those triggered by human activity – and for developing risk assessments and strategies for solutions. The report advocates the development of Earth System Science as a conceptual and structural framework to give new impetus to basic research and to help address societal challenges. It calls for a re-examination of traditional ways of thinking in education and research, and encourages the creation of future-proof infrastructures capable of meeting the major challenges that lie ahead.

Inspired by the Report on Tomorrow's Science, this funding offer aims to establish the guiding principle of Earth System Science by funding tenure-track junior professorships embedded in the university's strategic measures to be developed in parallel. Particular emphasis is placed on systemic thinking and an integrative approach. The intention is to bring together relevant areas of research so that new interdisciplinary networks and partnerships can be established. Furthermore, the call intends to give an impetus to reshape existing institutional structures as well as research and teaching programmes. Taken together, these measures shall contribute to the establishment of a comprehensive perspective on the Earth system.

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<sup>1</sup> <https://www.leopoldina.org/en/publications/detailview/publication/earth-system-science-discovery-diagnosis-and-solutions-in-times-of-global-change-2022/>

# 2

## FUNDING OPPORTUNITIES

The funding offer is directed at universities with a focus on geosciences that are interested in setting up one or two tenure-track junior professorships in accordance with this call. The Volkswagen Foundation addresses institutions with a strong research program in one or more of the relevant fields. There should be the potential for the integration of different fields and the interest to establish the guiding principle of Earth System Sciences. The application has to be made jointly by the university leadership, the deans of the relevant faculties and the respective candidate for the junior professorship.

Funding is available for one to two tenure-track junior professorships per location, as well as for strategic measures undertaken by the university. The basis is a strategic concept by the institution to establish or strengthen Earth System Science in research and education at the specific location. The involved faculties and departments are expected to lead the implementation of the strategic concept. The junior professor should be integrated into the process, but not carry the responsibility for the implementation of the proposed measures. Up to 1.5 million euros are available for the junior professorship and its equipment, as well as for the strategic measures. Depending on the quality and the fit of the applications, up to six tenure-track junior professorships can be funded in total, for six years each.

Alongside the funding scheme, the Volkswagen Foundation will offer activities such as scoping workshops for the thematic and structural development of the field, networking events with researchers beyond those funded by this scheme and support offers for the (further) development of curricula. The aim of these additional offers is to facilitate an exchange between different institutions and research clusters, to strengthen the dialogue between the grantees and the Foundation and to support the establishment of Earth System Science.

# 3

## FUNDING FRAMEWORK

Universities together with the candidate for the tenure-track junior professorship are eligible to apply. The university will be represented by a renowned researcher, preferably from a field relevant to Earth System Science, as coordinator of the strategic concept, and one member each from the university leadership and the participating faculties or departments. The integration of other research institutions at the respective location is explicitly encouraged. The junior professor candidate should be scientifically independent and, generally, not return to the work context of his/her doctoral phase. Preferably, the candidate will have already gained international experience and insight in the field of Earth System Science. The main applicant is the coordinator of the strategic concept for the university, together with the candidate as obligatory co-applicant.

The strategic concept should describe the aims and strategic measures of the university to establish or strengthen Earth System Science at their location. This includes measures that the university itself finances as well as measures which are to be financed by this funding scheme. The strategic concept should be based on the requirements of the research cluster and take inspiration from the Leopoldina Report on Tomorrow's Science: it should take a systemic approach and further the integration of different disciplines and fields, both in research and teaching. Elements of a strategic concept may include, for example, the integration of existing research fields into a centre, interdisciplinary modelling, and the establishment of corresponding study foci or degree programs. The junior professor should be part of the strategic concept but not be responsible for its implementation. Given the early stage of the career, it is expected that the junior professor will be appropriately, but not unreasonably, involved in the implementation of the concept and will be granted sufficient research freedom. In general, the research agenda of the junior professorship will integrate existing research areas at the location or significantly supplement the concept. If the strategic (re)orientation of a location requires it, the tenure-track junior professorship can also be designed as an early replacement of an existing professorship.

Funding may be requested for financing of a tenure-track junior professorship, related associated staff and equipment, as well as resources to implement the university's strategic concept. Two separate cost projections must be submitted. In total, applicants can receive a maximum of 1.5 million euros (or up to 3 million in case of two junior professorships) over a funding period of six years. Maximum 200,000 euro of this funding volume

(400,000 in case of two junior professorships) can be used for strategic measures of the university, such as summer schools, workshops or short-term teaching reductions of the involved professors.

For the tenure-track junior professorship, the following expenses can be covered:

- Personnel funds (W1 junior professor, doctoral students, graduate or undergraduate research assistants, technical staff)
- Non-personnel funds (funds for data collection and analysis, data backup, management and preparation for reuse, travel expenses, publication costs, science communications, consumables and services etc.)
- For universities additionally ten per cent overhead

To prevent a particularly high teaching load or a large number of administrative tasks for the junior professor, a time limit for teaching and administrative tasks should be agreed and guaranteed in writing. The teaching load of the proposed junior professorship must not exceed four semester hours per week (*Semesterwochenstunden*) during the entire funding period.

Part of the application is a binding declaration by the university that, in the event of a positive evaluation, it will transfer the junior professorship to a regular W2 or W3 professorship with appropriate equipment (personnel and non-personnel funds). The tenure evaluation of the professorship will take place at the latest at the beginning of the sixth year of funding. The university is responsible for conducting the evaluation and the review process. The Volkswagen Foundation should be involved. Should an interim evaluation be required by law after three years, this can be carried out without the Foundation's involvement.

The Foundation is committed to Open Science ([Open Science Policy of the Volkswagen Foundation, Download, PDF](#)). It is therefore expected that project results will be published open access and that data collected will be made available for scientific use via recognized repositories (see [NFDIs](#), [re3data](#), and [RIsources](#)). If data collection is intended, the essential information is to be presented in a data management plan (template of the target repository or [basic data management plan](#) of the foundation).

# 4 APPLICATION AND SELECTION PROCESS

Applications must be submitted online via the electronic application system by the deadline. Following the Foundation's review of formal application requirements, the applications are reviewed by international and interdisciplinary experts. After a pre-selection based on the written documents, some applicants will be invited to make a presentation to the panel of experts. The assessment of the experts forms the basis for the final funding decision by the Foundation's Board of Trustees.

The following criteria will be considered in the review process:

- Soundness and innovativeness of the strategic concept for establishing and strengthening Earth System Science at the location
- Fostering integration in research and teaching in line with the systemic approach of Earth System Science
- Sustainability of the strategic concept beyond the funding period
- Fit of the candidate and his/her research agenda to the strategic concept
- Relevant qualifications and scientific independence of the candidate
- Scientific quality and originality of the candidate's research agenda

# 5 CHECKLIST

As experience shows that it takes some time for university bodies to pass the necessary resolutions regarding the tenure track commitment and any structural changes that may be required, a preparation period of at least six months before the deadline is advisable.

Please submit your proposal in English via the electronic application system on the Foundation's website. In the application system, information on the Lead Applicant (the coordinator) and the Co-Applicant (the junior professor candidate), a concise title of the project as well as cost projections (for the strategic measures by the main applicant and the junior professorship by the co-applicant) are expected.

The following documents will have to be uploaded (in PDF-format):

- **Cover letter**
- **Summary** in German and English, one page each
- **Strategic concept** of the institution(s) (10-12 pages, Arial 11 pt.)
  - Name of the coordinator and the involved faculties and departments
  - Description of the current state of the Earth System Sciences (profile of the Geosciences) at the university / location
  - Description of the main ideas/objectives for establishing or strengthening Earth System Sciences at the university
  - Presentation of concrete measures with details of which institutions/persons will implement them (including a schedule with milestones)
  - Framework conditions and integration of the thematic focus of the new junior professorship into the strategic concept
  - Conceptual-strategic goals and personnel planning of the applicant institution for the next five to ten years
  - Criteria catalogue for evaluating the successful implementation of the strategic concept
  - Measures for the continuation of the strategic concept beyond the funding period
- **Research agenda** of the candidate for the junior professorship (10-12 pages, Arial 11 pt.)
  - Detailed description of the thematic orientation and research programme of the future junior professorship (substantiation of the innovative content, also in comparison to the international state of research, description of the required methods, future perspectives)
  - Short teaching concept
  - Schematic time and work schedule
  - Description of the scientific environment and cooperation partners locally, nationally and internationally
  - Integration of the junior professorship in the implementation of the strategic concept
- **CVs** of the candidate and the coordinator in a combined narrative and tabular format (max. 4 pages, Arial 11pt., structure as in template).
- **Binding statements of the university** (agreed between the university leadership and the faculties and/or departments and signed by these bodies) containing the following information:
  - Details of the university's contribution and the resources and facilities provided (e.g. workshops, archives, instruments)

- Commitment to the establishment of a W2 or W3 professorship *ad personam* and an appropriate endowment (human and material resources) following the expiration of the funding period, subject to successful evaluation
- Agreement on time limits for teaching and administrative tasks during the funding period (max. 4 SWS teaching)
- **Explanation of the cost projection** (justification of the individual positions of the cost breakdown in the application portal, in the case of positions with subject area, tasks, qualification) for both the strategic measures and the junior professorship
- Optional: **Letter of support** from other research institutions of the research cluster
- Optional: **Data management plan** (template of the target repository or basic data management plan of the foundation) if data collection is intended
- Optional: **Offer for equipment** if equipment worth more than 10,000 euro (taxes included) is requested

Please read the information about the electronic application system on the website of the Volkswagen Foundation prior to submitting your application. Information can be found in the document “Electronic Application System – Instructions and Tips”. It is important that applicants register all involved parties early on in the process. Without a user profile it is not possible to invite co-applicants or to submit an application. If you have technical questions about using the electronic application system, please contact [support@volkswagenstiftung.de](mailto:support@volkswagenstiftung.de).

## 6 CONTACT

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### **Additional Information**

- [CV Template](#)
- [Link Website ,Earth System Sciences'](#)
- [Application FAQs \(general\)](#)
- [Electronic Application System](#)
- [Electronic application made easy - instructions and tips](#)
- [Download: Personnel Rates, Data Management Plan](#)