Call for project proposals:
MDSI Kickstarter and Focus Topic Seed Funds

Introduction

Data science, machine learning, and artificial intelligence are revolutionizing our world. MDSI seeks to support research along these general themes, covering both their foundations and applications. We aim to contribute to this transformative impact in this call for MDSI Seed Funds proposals. Two types of projects will receive funding: the **MDSI Kickstarter** projects and the **MDSI Focus Topic** projects.

MDSI Kickstarter

The MDSI Kickstarter support shall provide a kickoff to collaboration between two PIs by promoting their first joint projects, which are currently in an installment / starting phase. The aim of the MDSI Kickstarter is to boost such projects by stimulating the identification of common research topics and producing initial methods for subsequent research or other preparatory work. Ideally, the MDSI Kickstarter projects result in the composition of first publications or the acquisition of external funding. Projects incorporating machine learning or artificial intelligence aspects in an interdisciplinary setting are highly appreciated.

Funding

MDSI Kickstarter projects will receive funds for up to two (post)doctoral researchers for up to twelve months (co-funding 50% of the salary of the two researchers). The funded researchers must have an employment contract with TUM via the individual chairs/groups at the start of the project. The MDSI will cover half of their salaries for the funding period. Funding for the supported researchers must start on 1 January 2025 at the latest.

Requirements

- Proposals must comprise at least two PIs with a doctoral degree and the right to supervise doctoral researchers (professors, PDs, TUM Junior Fellows).
- A short, written report about the project's outcomes must be provided six months after the MDSI funding has run out, at the latest. In addition, the team must produce a visible output in the form of, e.g., a poster or, ideally, a publication or a proposal for external funding.
- To monitor the program's long-term success, a further update on the outcomes must be provided one year after the funding has ended.
- At least one of the PIs must be an MDSI Core Member.
- Individual PIs can simultaneously participate in up to two proposals in this call (e.g., 1 Kickstarter & 1 Focus Topic).
- Funded personnel are encouraged to participate in other MDSI activities.

Proposal structure

Proposals must be at most two pages plus another optional page with figures and captions. References are not counted in this limit. Proposals must be written in **Arial, 11pt, with a line spacing of at least 1.0. Pages must have borders of 2cm**. The outline provided in the [proposal template file](#) is mandatory.
Please note: Proposals must adhere to these formal criteria to be included in the evaluation process.

Reviewing process

All proposals will be peer-reviewed by a team of MDSI members. In their evaluation, they will consider the following aspects:

- Interdisciplinarity (ideally, PIs from foundations fields team up with those from domain areas),
- Originality of the research (new, creative, explorative),
- Feasibility (demonstration that the proposed goals can be achieved in the given amount of time),
- Impact (in particular in the context of the MDSI environment, fit to MDSI),
- Subsidiarity (what other funds have been / will be applied for to support the research after the seed period).

MDSI Focus Topics

MDSI Focus Topics represent vital areas that MDSI would like to highlight. On-going projects are introduced on the [MDSI web pages](). This call for MDSI Focus Topics aims to identify and promote further topics. MDSI Focus Topics consist of a dynamic group of five or more senior TUM scientists who intend to collaborate on a specific research topic related to data science, machine learning, and artificial intelligence. Focus topics are initiated bottom-up, and their members define the mode of operation.

MDSI encourages the formation of new focus topics as they are aimed to be of great strategic importance for the university and MDSI. Therefore, the main aim of the MDSI Focus Topics is to initiate and establish a project or program employing innovative formats with high visibility during the funding period. They have a long-term character and shall be continued beyond the end of the MDSI funding. Examples of this could be applying for large structural programs with external funding agencies (like DFG clusters or CRCs), organizing (regular, international) workshops or conferences, or setting up a science blog series that introduces the group's research to the scientific community or the broader (non-academic) public. New ideas for innovative activities with high visibility are very welcome.

Funding

MDSI Focus Topics will receive co-funding for a (post)doctoral researcher (max. 50% of a TV-L E13 position) for three years (up to 120,000 € in total) who will coordinate the project plus 60,000 € for consumables (e.g., organizing workshops or inviting guests). Individual uses must be agreed upon with MDSI in good time (i.e., roughly in the proposal and in detail before the actual expenditure via the coordinator). The project can dispose of a total of 180,000 €. The coordinator can only be co-funded through the MDSI-Seed Funds, i.e., at least 50% of the employee's salary must be supplied through other sources. The MDSI funds will be available for three years starting 1 January 2025. Unused funds expire after 31 December 2027.

Requirements

- Proposals must comprise at least five PIs with a doctoral degree and the right to supervise doctoral researchers (professors, PDs, TUM Junior Fellows).
- The Long-term outcome after the end of the seed funding must be reported annually to MDSI (as part of MDSI's annual report).
- MDSI participates in regular meetings (at least 1 per semester). The Focus Topic starts with a kick-off meeting coordinated by MDSI. The coordinator will organize subsequent meetings.
- A coordinator for the project must be named. This person will act as the contact for MDSI.
- At least one of the PIs must be an MDSI Core Member.

- Individual PIs can simultaneously participate in up to two proposals in this call (e.g., 1 Kickstarter & 1 Focus Topic).
- Funded personnel are encouraged to participate in other MDSI activities.

Proposal structure

Proposals must be at most three pages plus another optional page with figures and captions. References are not counted in this limit. Proposals must be written in **Arial, 11pt, with a line spacing of at least 1.0. Pages must have borders of 2cm**. The outline provided in the proposal template file is mandatory.
Please note: Proposals must adhere to these formal criteria to be included in the evaluation process.

Reviewing process

All proposals will be peer-reviewed by a team of MDSI members. In their evaluation, they will consider the following aspects:

- Interdisciplinarity (ideally, PIs from foundations fields team up with those from domain areas),
- Originality of research (new, creative, explorative),
- Originality and impact of innovative activities,
- Strategic impact (in particular in the context of the MDSI environment, fit to MDSI),
- Subsidiarity (how will the focus topic be sustained after the MDSI funding period).

Further arrangements (Kickstarter & Focus Topics)

MDSI will confirm the receipt of the proposals within one week after the call closes. All applicants will be notified of the outcome of the reviewing process (including statements by the reviewers).

Public relations

Funded projects will be displayed on the MDSI website. They shall credit MDSI for all their scientific activities (including papers, conference contributions, etc.). Authors are requested to list MDSI as an affiliation.

Disclaimer

All funds are administered through MDSI and granted upon request and availability of funds. MDSI reserves the right to alter funding schemes at any time.

Timeline

Proposal **submission deadline: Sunday, 10 November 2024**
Earliest project start: 1 January 2025 (especially for transfer of personnel funding)

Contact

Proposals must be sent in one pdf-file to proposal@mdsi.tum.de
If you have any questions, please get in touch with Dr. Marco Barden via marco.barden@tum.de