CALL FOR PROPOSALS

In the inaugural program year, the Morningside Academy for Design (MAD) at MIT and the Hasso Plattner Institute (HPI), Potsdam, Germany, invite grant proposals for research in design, technology, and sustainability. Each PI (from MIT or HPI) is expected to propose a project in collaboration with a complementary research team at the partner institution. Grants are in the range of $50,000-$200,000 per year. Approximately 10 awards are expected. The Program seeks to engage multidisciplinary research teams with divergent backgrounds in computer science, AI, machine learning, engineering, design, architecture, the natural sciences, the humanities, business and management, and as such proposals are encouraged from all academic units at both MIT and HPI.

Program Vision

The HPI-MIT Designing for Sustainability Program engages multidisciplinary research teams to develop ambitious, long-term explorations related to the innovation strategies of design to generate sustainable impact for society across various domains of practice. The program applies rigorous academic research methods to understand the scientific basis for how and why design innovation works and fails. Design is understood broadly to include design research and thinking, design in the field of computer science, and design in entrepreneurship. Funded researchers study the complex interaction between members of multi-disciplinary teams challenged to deliver breakthrough product, service, and business-model sustainable design innovations.

An important feature of the design space is the need for creative collaboration across spatial, temporal, and cultural boundaries.

Program Priorities

Funding decisions favor projects that set new research priorities for this emergent knowledge domain. The collaboration plan must demonstrate scientific depth and mechanisms to sustain the proposed innovation. Selection is also based on scientific merit, methodology, rigor, and evidence of open collaboration.

We are especially interested in close collaboration between the two universities. Therefore, we strongly support:

- Joint proposals of members of MIT and the Hasso Plattner Institute
- Sustainable design projects that have visibility and could make a large societal impact
- All applications must explicitly explain the link to design and sustainability

We seek proposals positioned to yield deep insights into building and designing sustainability. The protocols that design researchers might apply to achieve "insights" versus "data" will be appraised by the selection committee for viability

We are particularly concerned with the following areas:

- **Approaches for sustainable design innovation**: How can new frameworks, tools, systems, and methods – in design, computer science, or other disciplines – augment, capture, and re-use successful practices for sustainable design innovation? How should stakeholders engage in sustainable design innovation?

- **Motivating stakeholders in sustainable design innovation**: What are the impacts and roles of human stakeholders in the process of sustainable design innovation? How can stakeholders be motivated to implement more sustainable solutions in the future?

- **Assessing the impacts of sustainable design innovation**: What is the impact of design on human, business, and technology performance as it relates to sustainability and reaching United Nations Sustainable Development goals? How do tools, systems, and methods create the right innovation at the right time? How do they fail? Why is now the right time to apply these tools, methods and/or (computational) systems? What societal impact can design and computer science have in navigating digital transformation or for reaching the United Nations Sustainable Development Goals?

Requirements for Funding and Proposal Guidelines

Program Components for Funded Research Teams
- Part of the program are two collaborative on-site workshops, one at HPI and one at MIT each year. These workshops focus on community building, research and knowledge exchange, and the creation of joint research outcomes, for instance, through a 'paperthon' where community members work on a joint publication together with senior scholars. External guests might give talks or feedback on the projects. Parts of these community events may be open to the academic public, creating vibrant exchanges between researchers and other stakeholders.
- Approximately every six weeks, virtual research seminars and exchange workshops will take place. Based on a rigorous curriculum, PIs of the program and external guests will give talks about current ideas, theories, methods, and progress on joint papers. Moreover, community members will exchange information about their projects and share feedback. In addition to advancing knowledge, these virtual events ensure strong community building throughout the year.
- The program includes a yearly research exchange, i. e., a stay on the 'other' campus for one week so that every program member has the chance to better connect with colleagues from the other institution and initiate further projects. These visits are part of the funded budget (about $1,500 per person

- The Principal Investigators (PI) must be tenured or tenure-track professor at MIT or the Hasso Plattner Institute. They must be authorized to supervise Ph.D. candidates as the primary dissertation advisor. The National Science Foundation (USA) eligibility criteria define PI requirements. Principal investigators can propose promising and excellent junior scholars (PhD students and postdocs, the minimum requirement is a full Master's degree or equivalent) who apply with a research proposal.

1. New Proposals

Grant proposal descriptions are a maximum of two pages in length including figures. Joint proposals between MIT and the Hasso Plattner Institute must have an eligible PI on each side and there should be only one proposal per team. Each team can apply for funding up to $200,000. This total should include all potential overhead costs. In the application form, the proposed funding allocation should be stated. It must be indicated how much maximum funding is to be used in year one and in the subsequent year if applicable. **The maximum award for the proposed funding period is capped at $200,000.** Each principal investigator in a team of two principal investigators (one from each institution) must receive **between 40% and 60%** of total allocated funding.

Fonts should be 12pt or larger, with no margins less than 2cm, and either US letter or A4 page layouts. Proposals should include:

- o Cover Sheet: Please use official form on the last page
- o Cover Page: Project title, names (incl. affiliations & email) of all members of the proposed project team
- o Description: Two pages maximum that describe the research project in ways that explicitly address the following key questions. If these issues do not fit your vision, please present alternatives and the rationale for using them.
    - o What is the proposed experiment design? What are the analysis methods?
    - o How is performance being measured?
    - o What is the expected impact?
    - o What human need is being addressed?
    - o What societal impact does the proposed work have for reaching United Nations Sustainable Development Goals?
    - o Budget should be detailed and broken down by calendar year. The duration of project should be clearly listed.

- o FAQ: Two pages maximum that answer the following specific questions in 1-3 paragraphs each:
    - o What is the direct connection to sustainability and design?
    - o Describe how exactly the teams will work together and identify students and scholars that will be involved by name and provide information on their status at the university.
    - o Describe the level of exchange and how each side is to be invested in the cooperation. How is collaboration envisaged

- o What other potential future sources of funding do you have? (background of this question: This program should serve as a catalyst or seed funding for an extended joint undertaking.)
  - ▪ Appendices:
    - o References
    - o One-page resume for each investigator (NSF style)
    - o One-page timeline with milestones and year-end deliverables (paper, workshop, demonstration …)
    - o One-page budget justification for one year with a **notation of maximum funding to be allocated in year one of funding**. Please provide approximate numbers for the following areas:
      - ▪ Salaries (faculty, post-doc, PhD candidates, staff)
      - ▪ Supplies (printing, publication, media, experiment consumables)
      - ▪ Travel (regional, international conferences, collaboration)

The complete application includes a 2-page proposal. After submission of the application materials, most teams will be sent follow-up questions in mid-June, 2023 to answer electronically within a 3-day period. In the final selection, applicants may be asked to join the joint selection committee for a ten-minute question round on June 22, 2023. At least one team member from HPI and one team member from MIT must be present for the question round of review with the joint steering committee. There will be a 5 business day waiting period between the meeting of the joint steering committee and notification of the teams with decisions.

2. Application for Continued Funding

Please submit the following by June 1:
- 2-page report on all achievements and **joint** activities taken in the prior funding period (linked specifically to the funding received)
- Overview of budget spent so far and newly requested budget

Submission and Review Protocol

The Program Committee with balanced institutional representation will review all eligible grant proposals. It may encourage groups to collaborate if it sees complementary lines of interest.

Proposals should be submitted by email as Adobe Acrobat (pdf) attachments to:

- Designing Sustainability Research Program (sustainability-research@hpi.de)

by 23:59 (GMT), Thursday, **June 1st, 2023**. Please also send any questions or requests for more information to this addre

HPI - MIT

Designing for Sustainability Program

Cover Sheet (Form)

Proposal ID code: (to be filled in by program manager)	
Title of Proposed Project:	
Name and Affiliation of Principal Investigator 1:	
Name and Affiliation of Principal Investigator 2:	
Funding allocation Principal Investigator 1 (must be between 40-60% of total requested funding-indicate here in % of total requested)	
Funding allocation Principal Investigator 2 (must be between 40-60% of total requested funding-indicate here in % of total requested)	
Abstract: (maximum of 200 words)	
Overall Budget requested (in US$ up to US$200,000):	
Maximum budget of total to be requested for year one funding (in US$):	