



FY2023 Winter Request for Catalyst Proposals

The Graham Sustainability Institute is soliciting **catalyst grant** proposals from faculty at the University of Michigan (U-M) Ann Arbor, Dearborn, and Flint campuses that address critical sustainability challenges by developing new, user-driven, collaborative research ideas or translating existing research for real-world application.

Catalyst Grants provide up to \$10,000 over eight months. Approximately four grants will be awarded. Projects may address any sustainability topic.

KEY DATES

December 2022	Request for proposals (RFP) released
January 23, 2023 (11:59 PM ET)	Letters of intent due (required)
February 27, 2023 (11:59 PM ET)	Proposals due
Late March / Early April 2023	Funding decision sent to applicants
May 1, 2023	Anticipated project start date

This is a recurring funding opportunity with RFPs released in the fall and/or winter, as resources allow.

CATALYST GRANT CHARACTERISTICS

All catalyst grant projects:

- **Advance sustainability** – Projects seek outcomes aimed to safeguard our planet's life-support systems and enhance well-being for present and future generations. Projects include environmental, economic, and social dimensions of sustainability.
- **Integrate end-users** – Projects identify, engage, and are responsive to the interests and needs of end users—partners outside the university positioned to apply project outputs in real-world decision-making and practice.
- **Collaborate across disciplines** – Projects bring together a strong team representing faculty from multiple disciplines and at least two U-M academic or research units.

CATALYST GRANT OBJECTIVES & ANTICIPATED ACTIVITIES

Catalyst grants support a range of short-term, small-scale collaborative projects with at least one of the eligible RFP objectives described below.

Objective 1: Develop new, user-driven, collaborative research ideas

These early-stage projects help to better define an issue, understand end user needs, develop partnerships, gather resources, and/or determine next steps. All Objective 1 projects should be building toward future end-user driven projects, and they must include plans for pursuing follow-on funding.

Example activities include, but are not limited to:

- Relationship building, development of partnership mechanisms and infrastructure, exploration of shared research interests, and other engagement activities;
- Convening workshops or meetings with external partners and researchers to elicit and advance collaborative research ideas;
- Analysis or synthesis of existing data to identify knowledge gaps and needs relevant to decision-making; and

- Initial/limited data collection and analysis, in combination with partnership building and engagement activities, to refine and scope a larger collaborative research project.

Objective 2: Translate existing research for real-world application

These projects must build on prior research accomplishments and advance their application by developing outputs that support users' decision-making or action. Activities may include, but are not limited to:

- Development of decision-making tools, guidance or recommendations for an end user;
- Data collection, analysis and/or synthesis to answer a user's critical follow-up question;
- Translation and dissemination of research findings to specific audiences;
- Training and capacity-building; and
- Small-scale evaluation of a pilot or proof of concept.¹

For either objective, if the catalyst grant would support a portion of a larger effort, the **proposal must focus on the specific work the catalyst grant would enable**, making it clear how it is distinct from other activities and is aligned with this RFP.

COLLABORATION & END USER INTEGRATION

For either objective, the proposed activities must clearly identify, engage, and be responsive to the interests and needs of end users—the intended users of the project outputs. The objective and type of work proposed should dictate the approach to engagement as well as the breadth and depth of engagement planned during the project. Some projects may engage multiple users and various other stakeholders and partners, while others may collaborate closely with a single, highly relevant end user.

To this end, all proposals must:

- Identify the primary end user(s) and their needs;
- Describe how the end user's input helped to shape the project; and
- Include an approach that will accommodate iterative engagement with the end user(s), including mechanisms for being adaptive and responsive to their input.

ELIGIBILITY

Proposed projects must be led by a U-M researcher or faculty member who is eligible to serve as a U-M Principal Investigator (PI).² U-M Faculty from the Flint, Dearborn, and Ann Arbor campuses are eligible to serve as a PI or Co-Investigator (Co-I).

All projects involve collaboration across disciplines and the U-M campuses. Specifically, there **MUST** be representation of at least two disciplines AND at least two U-M academic units ([U-M faculty handbook](#), [U-M Flint academic programs](#), [U-M Dearborn colleges](#)) or research units ([UMOR](#) and [Office of the Provost](#)) among the U-M faculty or researchers listed as PIs and Co-Is. The disciplinary and unit requirements are distinct. For instance, meeting the unit requirement may not be sufficient to meet the disciplinary breadth requirement. Teams with investigators from different campuses are encouraged. See the guidance at the end of the RFP for additional details.

REVIEW CRITERIA AND PROCESS

¹ In general, catalyst grants are not intended for implementation projects. Projects may include a pilot or proof of concept, but it should be clear how the focus of the work supports broader decision-making or action.

² The definition of a U-M PI can be found at: <http://orsp.umich.edu/principal-investigator-pi>.

Proposals are reviewed by Graham Institute staff and U-M faculty with relevant expertise using the criteria listed below.

- Sustainability focus – Relationship of the work to sustainability, including environmental, economic, and social dimensions, recognizing some dimensions may be more prevalent than others;
- Project approach – Degree to which the proposal includes an appropriate, sufficiently detailed, and technically sound plan to achieve the project outputs, meet the identified RFP objective, and incorporate end user input;
- Project team – Team diversity (spanning at least two disciplines and at least two U-M academic/research units) and relevant expertise, and clarity regarding how each team member and the integration of insights from the multiple perspectives will contribute to the project;
- Collaboration and end user engagement – Degree to which the proposal identifies an appropriate end user(s) and articulates their needs; will generate outputs that meet the end user’s needs, as indicated in letters of support; and incorporates end user input into final outputs.
- Feasibility – Likelihood of completing the proposed work (including integrating end user input and completing the proposed outputs) given the data, resources, and time available, and the appropriateness of the budget;
- Potential impact – Significance of the work and likelihood the activities and outputs will lead to the anticipated outcomes, including generating new user-driven research ideas and/or enhanced science application;
- Scholarship – Degree to which the project will advance understanding or contribute to scholarship; and
- Students – Inclusion of compelling opportunities for U-M students.

The Graham Institute seeks to support a diverse group of grant recipients and to be inclusive of new collaborations. These goals will be taken into consideration when making final funding decisions after the review is complete.

LETTER OF INTENT REQUIREMENTS

Applicants are required to submit a brief letter of intent (LOI) by 11:59 PM ET on Monday, January 23, 2023.

Information gathered through LOIs will be used to alert the program to the level of interest in the funding opportunity and guide recruitment of reviewers. Program staff may initiate discussions with applicants based on information provided in the letters; however, applicants do not need an invitation to submit a proposal. LOIs are not binding, and changes are permitted in the proposal.

LOIs should be provided as a single pdf file that includes the following information:

1. Draft project title
2. Project team – PI and Co-I(s) names and contact information
3. RFP objective – Indicate the eligible [RFP objective](#) to which your project relates
4. Project summary – Provide up to one page describing the planned work, including the anticipated end user(s), activities/methods, outputs, and outcomes.

To submit the LOI, click on the application link on the catalyst grant webpage (<http://graham.umich.edu/catalyst/grants>) then click “Apply.” Once you have logged in, enter the team information into the online form, upload your LOI as a single PDF, and save your application. All entries in the form can be updated at the proposal stage. You will receive a confirmation email when you first successfully save your LOI. You may continue to edit your LOI application by updating the form fields and uploading revised PDFs until the deadline, at which point your saved application will be submitted automatically. You will not

receive subsequent confirmation emails. **If you do not receive an initial confirmation email, your LOI was not saved properly, and you should resave or contact us directly at grahaminstitute-emopps@umich.edu.** Your LOI confirmation email will include a unique URL specific to your application. **Save this email – you will need the URL to access your application to make any edits to the LOI and to submit a full proposal.**

PROPOSAL REQUIREMENTS

Proposals must be submitted by 11:59 PM ET on Monday, February 27, 2023. Only applicants who submitted an LOI by the deadline will be eligible to submit a proposal.

To submit a proposal, access your application using the unique URL from your LOI confirmation email and the same UM login credentials. Once logged in, you will need to do the following: 1) Expand “Team Members and Partners” to make any changes to your team, 2) Expand the “Project Information” section upload your proposal as a single PDF, and 3) Click the “save” button.

You will receive a confirmation email the first time you successfully upload and save your proposal. You may continue to make edits to your application until the deadline, at which time your saved application will be submitted automatically. You will not receive subsequent confirmation emails.

Proposals must be submitted as a single pdf file using 12-point Times New Roman font, single-spacing, and one-inch margins, and be organized using the headings below. Proposals must include a title page, a project narrative, and appendices as outlined below.

Title page (1 page maximum)

Organize your title page using the following headings:

1. Project title
2. Principal investigator (primary contact for project) – Name, title/position, U-M unit, telephone, mailing address, and email address
3. Co-investigator(s) – Name, institution, telephone, and email address
4. Additional team members, if applicable (anyone receiving project resources or contributing significant resources to the project) – Name, institution, telephone, email address, and nature of contribution, if relevant.
5. Project start and end dates – Projects should start on January 1, 2022 and end no later than August 31, 2022.
6. RFP objective – Indicate the eligible [RFP objective](#) to which your project idea relates
7. Non-technical summary – Provide a 250-word summary suitable for a non-technical audience. Include the project’s objectives, the primary end-user(s), and anticipated outcomes.

Project narrative (4 pages maximum)

Organize your narrative using the following underlined headings and subheadings. Suggested page lengths for sections are offered.

1. Project objective & end user need (~1.5 pages)
 - A. Identify the sustainability challenge the project proposes to address, discussing its importance and relevant context. It should be clear how it includes environmental, economic, and social dimensions of sustainability, recognizing that they may not be equal.
 - B. If the catalyst grant is being sought to support a portion of a larger effort, state that explicitly, provide a **very brief** overview of the broader work, and explain why catalyst grants are needed to support the distinct, complementary activities outlined in the proposal. **The rest of**

the proposal must focus on the specific activities, outputs, and outcomes the catalyst grant would enable.

- C. Clearly state the [RFP objective](#) you seek to achieve through the catalyst grant and how it aligns with an end user need. If you are building on existing work, explain how the proposed work is distinct and addresses end user needs.
 - D. Identify the primary intended end user(s) of the project outputs, explain how their input helped to shape the project, and indicate how the work is designed to incorporate their insights and meet their needs. This should be corroborated by letters of support in the Appendix. Note that while Objective 1 proposals can be used to identify and develop new partnerships with end users and other partners or stakeholders, there must be at least one identified user at the outset with demonstrated interest in the proposed planning and relationship development activities. Refer to the guidance at the end for additional end user details.
2. Outputs and outcomes (~0.5 page) – *Clearly distinguishing between the two*, list the project outputs (i.e., tangible products created or services delivered) and anticipated outcomes (i.e., positive real-world changes resulting directly from outputs). Describe these briefly, clearly stating how the outputs address end user needs and how they will help lead to the anticipated outcomes. For Objective 1 proposals, this section should explain the larger effort the proposal is building toward and include plans for follow-on funding. Refer to the guidance at the end for [examples of outputs and outcomes](#).
 3. Project approach (~1.75 pages)
 - A. Activities/methods – Describe the project approach, including the specific activities and/or methods that will achieve the project outputs and outcomes. Describe the collaborative process that will be followed to ensure iterative engagement with end users, including mechanisms for being adaptive and responsive to their input. We encourage the inclusion of evaluation activities that can help project teams improve the project as it unfolds, demonstrate support for findings, or inform future work.
 - B. Data availability – Briefly identify required data sources and describe how the team will access them. Given the timelines of the grants, projects should already have or be able to access quickly sufficient information for an effective analysis or synthesis. Limited data collection is appropriate provided it is feasible and aligned with the project’s objective.
 - C. Scholarship & students – Briefly explain how the work will support faculty scholarship (e.g., development of new areas of inquiry and/or partnerships important for future scholarly work) and create opportunities for U-M students.
 4. Project team (~0.25 page) – Describe each team member’s role on the project (i.e., the activities/outputs to which they will contribute) and how the integration of insights from the multiple perspectives contributes to the project. Do not summarize expertise evident from CVs.

Appendices

1. References
2. Proposal approval form – Complete the Graham [proposal approval form](#) found on the catalyst grant webpage. Please allow time to route this form for signatures according to the policies and procedures in your campus unit. Note that this is NOT the PAF routed through e-research.
3. Timeline – Using the [timeline template](#) found on the catalyst grant webpage, identify anticipated start and end dates for the proposed work. Identify significant tasks/activities, including end user engagement, and the outputs described in the narrative. The timeline must include completion of the final project outputs.
4. Budget – Using the [budget template](#) found on the catalyst grant webpage, include the budget for this project. Awards will be funded at a level of up to \$10,000 for eight months. No indirect costs or equipment purchases will be allowed. Matching funds are not required.

5. Budget justification – Provide a narrative that fully explains the relationship of costs to accomplish the proposed activities and the basis for cost estimates. If faculty salary support is requested, provide detail (for whom, nature and percent of appointment, period of time, amount).
6. Financial support for broader efforts, if applicable – If catalyst grant funding is being sought for a portion of a larger effort, identify other funding, pending or awarded, supporting the broader work related to this proposal that would not be covered by the catalyst grant but is critical to the success of the catalyst work. Note which costs related to the catalyst grant scope of work (e.g., personnel, travel, supplies, etc.) this other funding would cover.
7. Letters of support - Provide letters from individuals and/or partners confirming contributions to and support for the project. Include letters from the following:
 - A. Primary end users engaged in the project. Letters should describe how they have been engaged in the development of the proposal, how they see themselves involved in the project if funded, and how they anticipate using the project outputs. **All proposals must include at least one letter of support from an end user.**
 - B. Team members included in the project but not funded in the budget.
 - C. Individuals, groups, and/or institutions that have agreed to provide data/access to data or other resources necessary for the project not otherwise accounted for in the budget.
8. Resumes – Include two-page resumes for each team member named on the proposal.
9. Other supporting documents – You may include up to three pages of supporting documents as appendices.

REQUIREMENTS FOR CATALYST GRANT RECIPIENTS

Catalyst grant recipients will be required to:

- Participate in two verbal project check-ins with Graham staff (kick-off and late project).
- Submit a brief mid-project report that describes progress on activities, outputs, and anticipated outcomes outlined in the proposal and any challenges experienced (~2 pages).
- Submit a brief final written report that describes the overall results and progress relating to the objectives, outputs, and outcomes presented in the original proposal.
- Share project outputs (e.g., articles, guides, tools, factsheets, other end-user products) with the Graham Institute.
- Participate in a Graham-sponsored meeting or event with U-M sustainability researchers to share findings.
- Respond to Graham Institute surveys about the impact of the grant and project details.
- Mention Graham Institute support in any publications, presentations of project results, and formal project communications (press releases, social media, etc.), and provide information to Graham Institute staff related to these efforts.
- Respond to requests to review proposals during future funding cycles.

QUESTIONS ABOUT THIS RFP

Please direct all questions related to this RFP to Maggie Allan, Program Manager (maallan@umich.edu, 734-763-0749).

Program staff will maintain and regularly update a **Frequently Asked Questions** document available on the catalyst grant webpage.

ADDITIONAL GUIDANCE

The following offers detail and clarification regarding key terms used in this RFP and required proposal elements.

Eligibility

- The two-unit minimum requirement can be fulfilled by a PI and Co-I both within the College of Literature, Science, and the Arts (LSA) provided there is representation from at least two of the three LSA Divisions (i.e., Humanities, Natural Sciences, and Social Sciences). While other U-M units also have disciplinary diversity, this exception to the two-unit minimum is available solely for LSA based on the school's breadth and size.

The four UM-Dearborn colleges and six UM-Flint academic units are considered distinct units.

If an investigator (PI or Co-I) has a joint appointment (e.g., active appointments in multiple units), the primary home unit (i.e., the unit that pays at least 50% of salary) will serve as the unit that counts toward the two-unit minimum requirement.

These requirements do not limit the number of investigators on a team. The team may include multiple investigators from the same unit or same discipline so long as the team also meets both the unit and disciplinary requirements. Co-Is and team members from other institutions and organizations are allowed.

A PI with an active catalyst grant may not be listed as an investigator (PI or Co-I) on new catalyst grant proposals until the first project has finished. **A principal investigator may not receive more than two catalyst grants.**

Sustainability

- The Graham Institute defines sustainability broadly: Sustainability encompasses solutions-driven scholarship and practice that seeks to safeguard our planet's life-support systems and enhance well-being for present and future generations. The field is defined by the problems it addresses rather than the disciplines it employs. It draws from multiple disciplines of the natural, social, engineering, design, and health sciences; from the professions and humanities; and from practical field experience in business, government, and civil society. Recognizing that there are many definitions of sustainability, for the purposes of catalyst grants, sustainability should include environmental, economic, and social dimensions. For a given project, those dimensions need not be equal, but they should all be present.

End user

- End users are individuals or organizations who are involved directly with the topic of interest and in a position to apply the information or tools being produced or evaluated through a catalyst grant project in a way that advances sustainability. End users can be from various sectors (government, industry, non-governmental organizations, community groups, etc.). There should be a natural link between the problem the project seeks to address and the primary end user(s).

Project Outputs and Outcomes

- Outputs are tangible products created or services delivered during or upon project completion. There are often multiple outputs for catalyst grants, but **the main outputs should be designed to meet end user's needs** and support decision-making or action. Examples include, but are not limited to:
 - A detailed and actionable plan for a larger collaborative project that addresses end user needs, including plans to secure additional funding;
 - A refined collaborative research question informed by end user input and initial data collection and analysis;

- Scientifically produced data, analyses, and syntheses;
 - Events such as conferences, workshops, or trainings;
 - Translational products that support decision-making or action, e.g., white papers, guides, recommendations, factsheets, scenarios, and tools; and
 - Scholarly work.
- Outcomes are positive changes resulting directly from the project process and outputs. Outcomes can occur over the short or long-term. They include how the work will change or influence knowledge, behavior, practices, procedures, or policy to advance sustainability. Examples include, but are not limited to:
 - New or strengthened collaborative partnerships, which may include development of a Steering Committee or other appropriate partnership infrastructure mechanisms;
 - A team better positioned to pursue future collaborative research funding;
 - Better understanding of a topic and identification of key issues, decision makers, and priorities;
 - New or refined decision-making, management, strategies, or action; and
 - Leveraged funding and spinoff projects.