

## Emerging Opportunities Program Winter 2020 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 for small-scale, collaborative sustainability research efforts including:

- Project planning and partnership development activities and/or
- Projects that enhance the real-world application of existing sustainability research.

### KEY DATES

January 20, 2020	Request for proposals (RFP) released
February 21, 2020 (11:59 PM EST)	Letters of Intent due (required)
March 27, 2020 (11:59 PM EDT)	Proposals due
Late April 2019	Funding announcement
May 2019	Anticipated project start date

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

### FUNDING

Approximately four grants of up to \$10,000 over eight months will be awarded this funding cycle.

### CATALYST GRANT CHARACTERISTICS

Catalyst grant projects have the following characteristics:

- **Sustainability Focus** – Sustainability encompasses solutions-driven scholarship and practice that seek 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.
- **Solutions Orientation** – Projects connect research to real-world decisions and yield actionable options for decision makers and practitioners.
- **Multiple Disciplines and U-M Units**– Projects bring together a strong team representing multiple disciplines and at least two academic or research units.
- **Engaged External Partner** – Projects engage and respond to the needs of a specific non-academic external partner (or partners) willing to invest time, provide input, and work with researchers to connect science to real-world practice. These partners are in a position to utilize project outputs—in decision-making, implementing strategies, scaling results, and furthering project objectives—and their input is integrated into the project.
- **Advances Scholarship** – Projects support scholarly work of faculty researchers and others.
- **Student Opportunities** – Projects offer opportunities for U-M students to engage across disciplines, appreciate diversity, think systemically, and pursue action-based learning.

## 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. For either objective, the proposed activities should reflect the solutions orientation of the funding opportunity, and they should generate outputs that support decision-making or action.

### Objective 1: Partnership development and project planning

These early-stage projects help better define an issue, understand decision maker needs, develop external partnerships, gather resources, determine next steps, and/or plan for larger, collaborative projects that support decision-making or action. Proposals must include plans for 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: Enhanced real-world application of sustainability research

These projects extend and apply existing research by developing outputs that support decision-making or action. Activities may include, but are not limited to:

- Development of decision-making tools, guidance or recommendations for an external partner;
- Data collection, analysis and/or synthesis to answer a partner'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<sup>1</sup>

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. See additional details in the proposal narrative requirements.

## 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).<sup>2</sup> 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](#)) 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. See the guidance at the end of the RFP for additional details.

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<sup>1</sup> 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 work also supports broader decision-making or action.

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

## REVIEW CRITERIA AND PROCESS

Selection criteria used to review the proposals include:

- Sustainability focus – Relationship of the work to sustainability, including environmental, economic, and social dimensions, recognizing some dimensions may be more prevalent than others;
- Solutions orientation – Articulation of how the project connects research to real-world decisions and actions;
- Project approach – Quality and appropriateness of the approach for achieving the project outputs and meeting the identified RFP objective;
- 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 member and the integration of insights from the multiple perspectives will contribute to the project;
- External partners – Degree to which the proposal identifies an appropriate specific external partner (or potential external partner); describes their relevant interests and needs; articulates their role; and, incorporates their input;
- Feasibility – Feasibility of completing the proposed work, including development of the proposed outputs, given the data, resources, and time available;
- Potential impact – Likelihood the activities and outputs will lead to the anticipated outcomes, significant of the work, and inclusion of an evaluation process with appropriate and specific measures of success.
- Scholarship – Degree to which the project will advance understanding or contribute to scholarship; and
- Students – Inclusion of compelling opportunities for U-M students.

All proposals will be reviewed by Graham Institute staff to ensure alignment with the goals of the funding opportunity and the selection criteria. Top-ranking proposals will then be reviewed by the Graham Institute's Executive Committee and additional U-M faculty recruited to ensure sufficient relevant expertise. 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 faculty review is complete.

## LETTER OF INTENT REQUIREMENTS

**A letter of intent (LOI) is required. LOIs must be submitted by 11:59 PM EST on Friday, February 21, 2020** via the application link on the catalyst grant webpage: <http://graham.umich.edu/emopps/catalyst>.

Information gathered through LOIs will be used exclusively to guide recruitment of reviewers and will not influence the proposal evaluation process. Staff may also 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.

To submit the LOI, enter the team information requested into the online form and include the following information, organized using the same headings, in a single pdf file using 12-point Times New Roman font, single-spacing, and one-inch margins.

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

Upon successful submission of the LOI, you will immediately receive an email confirmation that contains a unique URL for your application. **Save this email – you will need this URL to submit your proposal.** If you do not receive this email, your application was not submitted properly and you should resubmit or contact us directly at [grahaminstitute-emopps@umich.edu](mailto:grahaminstitute-emopps@umich.edu).

## PROPOSAL REQUIREMENTS

**Proposals must be submitted by 11:59 PM EDT on Friday, March 27, 2020 using the unique application URL emailed to applicants after LOI submittal.**

The unique URL will prompt you to log in and then direct you to your application in the Graham online system. Update the team information as needed in the online form, then scroll down towards the end of the page to the proposal upload field, upload your complete proposal, and click on the "save" button. Please note that in order to submit the proposal, the login credentials must be the same as those used to submit the LOI.

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. Additional co-investigators – Name, institution, telephone, and email address
4. Additional team members (anyone receiving project resources or contributing significant resources to the project) – Name, institution, telephone, email address, and nature of contribution, if relevant.
5. Date – Of submission
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, who will use the outputs, 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. Problem Statement & Project Objective (~1 page)
  - i) 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.
  - ii) 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.**
  - iii) Clearly state the [RFP objective](#) you seek to achieve through the catalyst grant. For Objective 1 proposals, explain how the proposed work will foster partnership development and/or advance project planning efforts. For Objective 2 proposals, explain how the proposed work

is distinct from existing research, whose decision-making or action it will support, and how the work is designed to meet decision maker needs. For either objective, be clear about how the work exemplifies a solutions orientation that connects science to real-world action and/or decisions.

2. External Partner(s) (~0.5 page) – Proposals must identify, engage and be responsive to the needs of external partners. In this section, identify the external partner(s) and clearly describe their interest and role in the proposed work. For Objective 1 proposals, the partner(s) may be identified already or, if the purpose of the proposed work is to identify partners and build partnerships, the proposal should still identify specific potential partners and describe their anticipated interest in the proposed work. Objective 2 proposal partners must be clearly identified.
3. Outputs and Outcomes (~0.5 page) – List and describe the project outputs (i.e., tangible products created or services delivered) and anticipated outcomes (i.e., positive real-world changes resulting directly from outputs), *clearly distinguishing between the two*. The main outputs should be designed to support decision-making or action. Often, external partners are the intended users of the outputs. For Objective 1 proposals, this section should also include plans for follow-on funding. Refer to the guidance at the end for additional details.
4. Project Approach (~1.75 pages)
  - i) Activities – Describe the project approach, including the specific activities that will achieve the project outputs and outcomes. Include details about the approach to collaboration, including how and the degree to which the external partner is involved in the work.
  - ii) Data – Identify required data sources and describe how the team will access them. Given the solutions orientation and 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.
  - iii) Evaluation – Describe how the team will evaluate the implementation and outcomes of the project, including clear and appropriate measures of success. Teams are encouraged to consider how they can use evaluation to improve the project as it unfolds and inform future work. Refer to the guidance at the end for additional details.
  - iv) Scholarship & Students – Explain how the work will support faculty scholarship and create opportunities for U-M students.
5. 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.

## Appendices

1. References
2. Proposal approval form – Complete the [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.
3. 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.
4. 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).
5. Financial support for broader efforts – 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.

6. Timeline – Using the [timeline template](#) found on the catalyst grant webpage, identify anticipated start and end dates for the proposed work. Identify significant tasks and activities. The timeline must include completion of the final project outputs.
7. Resumes – Include two-page resumes for each team member named on the proposal.
8. Other supporting documents – You may include up to five 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 final written report that describes the overall results and progress relating to the objectives and specific measures of success presented in the original proposal.
- Share additional project outputs (e.g., articles, guides, graphics, factsheets) 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](mailto: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, 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.

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.

#### *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.

#### *Solutions orientation*

- Framing that connects science to real-world decisions; results can be used as a basis for decision-making or action; work is at the point of application.

#### *External partner*

- Individual(s) or organization(s) outside the university who are involved directly with the topic of interest either as a practitioner or decision maker. External partners can be from one or several sectors (government, industry, non-governmental, community, etc.) based on the focus of the project. External partners should be in a position to utilize project outputs—in decision-making, implementing strategies, scaling results, and furthering project objectives. Their input should be integrated into the project.

Researchers from other academic organizations are unlikely to meet these criteria. More likely, they would be collaborators. Note that this does not preclude external partners from being members of the project team or participating in science co-production.

#### *Project Outputs and Outcomes*

- Outputs are tangible products created or services delivered during or upon project completion. For catalyst grants, **the main outputs should be designed to support decision-making or action**. Often, external partners are the intended users of the outputs. Examples include, but are not limited to:
  - A detailed and actionable plan for a larger collaborative project, including plans to secure additional funding;
  - A refined collaborative research question informed by external partner 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;
- 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.

#### *Scholarly work*

- Scholarly work includes activities (e.g., publications, presentations, and creative works) which disseminate project outputs and outcomes and advance U-M faculty scholarship. Note that the development of new areas of inquiry and/or partnerships important for future scholarly work are also consistent with the goals of this RFP.

#### *Student opportunities*

- The student opportunity review criterion is in reference to University of Michigan students (undergraduate through doctoral). Proposed projects involving students from outside the University of Michigan are not ineligible for funding, but should consider ways to involve University of Michigan students. Student opportunities may be paid or unpaid. Examples include, but are not limited to, research assistantships, experiential learning, practical training, etc.

#### *Evaluation*

- Applicants are encouraged to design their evaluation to be useful by considering who will use the results and for what purpose. For instance, evaluations can help project teams improve the project as it unfolds, communicate results, demonstrate support, or inform future work, and they can support external partners' decision-making.

Proposals should describe initial plans for assessing both project implementation and outcomes, although the balance between the two will depend on the specific project.

- Implementation evaluation – focuses on processes to assess the extent to which the project is functioning as planned, measures what and how much was accomplished (e.g., outputs), and identifies major challenges and successful strategies.
- Outcome evaluation – focuses on outcomes, including unintended effects, to judge the overall effects of a project.

Proposals should identify which aspects of implementation and outcomes will be assessed, the general method(s) for answering those questions (e.g., participant surveys), and clear and appropriate measures of success. Recognizing that project evaluation efforts and reporting will be completed during the project period, a focus on outputs and short-term outcomes is expected; however, applicants should consider how longer-term outcomes and impacts to which the work contributes could be assessed.

#### *Measures of success*

- Measures (indicators or metrics) of success are specific and observable accomplishments or changes that show the effect of the project. They may be quantitative or qualitative, and they may focus on the extent to which an anticipated output/outcome is achieved or the quality of the processes leading to that output/outcome.