Sustainable and Resilient Economy



Discovery Themes at The Ohio State University

Request for Seed Grant Proposals

1. Introduction

The Ohio State University has an important role as a public, land-grant, research university seeking solutions to grand challenges that face our society. Through the Discovery Themes Initiative, Ohio State is positioned to translate its intellectual assets and relationships into transformative improvements in the sustainability and resilience of natural and human systems on local, national, and global scales. The Discovery Themes Initiative combines a substantial investment in faculty hiring with a collaborative, multistakeholder approach to innovation, learning and engagement.

This Seed Grant initiative is sponsored by the **Sustainable and Resilient Economy** (SRE) program. The mission of SRE is to advance sustainability science in order to accelerate the development of sustainable and resilient production and consumption systems that enhance the value and reduce the adverse impacts of material flows through the economy and society. We seek to advance the science of sustainability by developing more holistic approaches to sustainability and resilience assessment and applying these methods to foster new innovations in sustainable technologies, policies and governance. Towards this end, we are building collaborative teams, attracting world-class talent, developing large-scale partnerships with industry and government, and serving as a catalytic, integrative platform for research, teaching and outreach in the field of sustainability science.

(For more information, see https://discovery.osu.edu/SRE.)

An important mechanism for achieving the above goals is to provide seed grants to Ohio State teams that wish to pursue promising opportunities in research, teaching, outreach, and practice. Our intent is to maximize both Linkage (i.e., forging transdisciplinary connections among OSU faculty, staff, students and external partners) and Leverage (i.e., bringing new talents, expertise, and resources to our initiatives as a result of our collaborative work). We expect that these competitive seed grants will help to generate new opportunities or novel extensions of existing activities, rather than simply providing supplementary funding for existing activities. Emphasis will be placed on funding proposals that are likely to produce tangible outputs that expand the financial or intellectual resources available to Ohio State.

The first round of SRE seed grants was offered in the fall of 2016, and resulted in 8 awards with a total value of \$155,000. In addition, the successful proposals were able to secure a total of \$173,000 in matching funds. We expect this second round to produce similar results.

SRE seed grants at a glance:

Eligibility: Faculty-student teams, preferably representing multiple departments and colleges

Due dates: Letter of intent due April 15, 2016; Full proposal due June 15, 2016

Maximum funding: \$25,000 (plus cost share, if applicable)

2. Potential Topic Areas

Proposals are encouraged in any areas of interest to our faculty teams and their partners related to the SRE program mission described above. While seed grants are not constrained to specific topics, the following topics are of particular interest to the SRE program:

- Integrated modeling of coupled **human-natural systems** to account for interactions and feedbacks across multiple processes (e.g., environmental, technological, economic, behavioral, social and/or policy), spatial scales (e.g., local to regional, regional to global) and/or temporal scales (e.g., from annual to decadal, decadal to generational).
- Accounting for the benefits and costs of ecosystem services, chemical and biological feedstocks and/or natural resources used in the life cycle of products and services, including the impacts on human health and social well-being.
- Integration of behavioral considerations, including decision making heuristics, social interactions, motivational beliefs, and moral norms, into economic and/or engineering models of production or consumption processes.
- Investigation of innovative policies or technologies that support the use of bio-based materials, including alternative plant-based materials, agricultural residues, or post-consumer wastes, as sources of renewable energy or industrial feedstocks.
- Methods to characterize and manage the interdependencies among food, energy, water, and material supply chains and infrastructures, for the purpose of ensuring the resilience and sustainability of communities that depend upon these critical resources.
- **Curriculum development** in the area of sustainability and resilience in general and with a focus on interdisciplinary approaches to sustainability and resilience including culture and human values, modeling, assessment, strategy, and management.
- Foundations of sustainability and resilience, including social, cultural and historical factors that have influenced human-environment interactions over time and moral and ethical questions about basic notions of well-being, quality of life, and happiness; inter- and intra-generational equity; and the time frame over which sustainability is considered.

3. Proposal Instructions

Proposal teams must submit a brief letter of intent as described below to assure the relevance of the chosen topic, and to provide an opportunity for feedback on the concept and potential collaborators. An approved letter of intent will be required before a full proposal will be considered. The deadline for submission of the letter of intent is April 15, 2016 with full proposals due June 15, 2016. Please direct all communications to the SRE Program Coordinator, Melissa Amos (amos.126@osu.edu, 614-292-3732).

A. Scope of Projects: Grants will support teams of university collaborators and community or other external partners who engage in strategic activities in research, teaching, outreach and practice to address compelling sustainability and resilience challenges, advance the Discovery Themes Initiatives and Ohio State's sustainability goals, and maximize linking and leveraging opportunities.

- B. **Funding Available:** The total funding available is approximately \$150,000. The amount of funding for each grant may vary from \$1500 to a maximum of \$25,000. For larger grants, we expect leverage through matching from other sources (see H. below).
- C. **Fund Administration**: All seed grant funds will be placed in a separate account managed by the Office of Academic Affairs, which will be available to the named Principal Investigator. Note that the funds will not be transferred.
- D. **Grant Duration:** Grant funds will be issued for a period of up to one year from the effective date of the award. Time extension requests will be considered on a case-by-case basis.
- E. **Mid-project review**: Grantees will receive 60% of the funds at the start, and the remaining 40% after providing a satisfactory mid-project progress report. The report should be concise, written for a general audience, include graphics (e.g. photos, charts, graphs) that describe the project status, and be suitable for publicizing DTI activity via online and print media.
- F. Eligibility: Teams of faculty, staff, students, and community or external partners may apply. The project lead must hold an OSU appointment or be an enrolled student with a faculty or staff advisor who can assist with managing the award. Team members' roles and responsibilities must be described in detail, and each team member must sign indicating their willingness to accept those roles and responsibilities. The size and configuration of the teams is open, but we strongly encourage diverse, interdisciplinary teams with participation from multiple departments and colleges. We expect that these teams will establish new network connections among faculty, students, and external partners through research, outreach, and/or teaching.
- G. **Use of Funds:** There are no restrictions on use of funds, except that funds may not be used for capital improvements. The use of funds for faculty salaries is allowable, but must be clearly justified.
- H. Matching and Cost Sharing: Matching funds or in-kind support are not required, particularly for small awards that accomplish significant linkage and leverage. However, matching will be part of the evaluation of proposals, and the expectation for matching will increase with the size of the award. Matching funds are encouraged from internal partners such as the Office of Energy and the Environment, new faculty startup funds, colleges and departments, and interdisciplinary programs, as well as external partners. In-kind matching must be described thoroughly and will be evaluated on a case-by-case basis. Proposal teams are encouraged to identify additional resources as part of their plan to achieve leverage and sustain projects beyond the 2016-2017 academic year.
- I. Required Letter of Intent: Teams must submit a letter of intent (LOI), in 12-point font with 1-inch margins, up to two pages in length. The LOI should provide a clear understanding of how funds will be used to achieve the goals of the Seed Grants program by explicitly describing (a) the concept and rationale, (b) the objectives, approach, and expected outcomes, (c) team qualifications, and (d) estimated total budget. The LOI will be reviewed within two weeks, and must be approved before full proposal submission. The LOI may be returned with suggestions for revision and resubmission.

Please e-mail the LOI in PDF format by **April 15, 2016** to the SRE Program Coordinator: **Melissa Amos** (amos.126@osu.edu, 614-292-3732).

- J. Full Proposal Format: The proposal must be in 12-point font with appropriate spacing and 1-inch margins to ensure readability, and must be submitted as a complete PDF document. The proposal narrative may not exceed 6 pages in length, including charts, tables, graphs, and references, and may be considerably shorter for smaller proposed grants. The narrative must document a compelling challenge and describe how the team will address this challenge. Narratives should include:
 - 1. Descriptive Proposal Title.
 - 2. Lay Summary (50-word maximum): A brief description written for a general audience.
 - 3. **Concept and Rationale**: Document the significance of the compelling challenge and describe how the project will address the challenge, engage OSU people and partners, build on existing work or partnerships, leverage new resources, and produce useful results.
 - 4. **Objectives, Approach, and Expected Results**: Describe specifically the project objectives, how the team plans to accomplish those objectives, the expected tangible outputs, and the expected short and long term benefits or results, including how this work will enhance the potential for specific sources of external funding (in narrative or logic model format).
 - 5. **Team Qualifications, Linkage and Leverage**: Describe the qualifications of the key team members, the capacity of the team to succeed, how the project will achieve both linkage and leverage as defined above, and how this will translate into value for Ohio State.
 - 6. **Budget justification**: Describe how the team plans to use the grant funding as well as any matching resources to carry out the project.

In addition to the proposal narrative, teams must provide a team roster with roles, responsibilities and signatures, a budget form, and a list of at least two (2) suggested reviewers external to The Ohio State University (see M. below and forms on following pages).

Please e-mail the full proposal in PDF format by **June 15, 2016** to the SRE Program Coordinator: **Melissa Amos** (amos.126@osu.edu, 614-292-3732).

- K. Review Criteria: Proposals will be reviewed according to the following criteria:
 - 1. **Concept and Rationale**: Potential to advance the mission and goals of the Sustainable and Resilient Economy program through innovative research, education, or other activities.
 - Objectives, Approach, and Expected Results: Likelihood of team success in meeting the project objectives and achieving substantial benefits; expected overall value to Ohio State; potential for generating external funding.
 - **3. Team Qualifications, Linkage and Leverage:** Capacity of the team to perform effectively, breadth and diversity in engagement of partners, creative leveraging of matching resources (if applicable).
- L. **Submission and notification:** Letters of Intent should be submitted via e-mail to outreach@osu.edu by **April 15, 2016** with full proposals due by **June 15, 2016**. Applicants will be notified about the outcomes within 6 weeks of proposal receipt.
- **M. Proposal attachments:** The following 3 pages provide templates for the required attachments.
 - Team Roster
 - Budget Summary
 - Suggested External Reviewers

Sustainable and Resilient Economy Seed Grant Application

TEAM ROSTER

Proposal Title:

Team Members, Affiliations, and e-mail addresses	Project Roles and Responsibilities	Signatures
PI, team lead:		

Sustainable and Resilient Economy Seed Grant Application

BUDGET SUMMARY

Proposal Title:

Item (and brief description)	Requested Funds	Matching Support
A. Salaries and Fringes		
B. Supplies		
C. Equipment		
D. Outreach		
D. W. 1		
E. Travel		
F. Services		
r. services		
G. Other		
S. Guidi		
Totals		
	(\$25,000 maximum)	

Sustainable and Resilient Economy Seed Grant Application

SUGGESTED EXTERNAL REVIEWERS

Proposal Title:

Name	Affiliation	Area of expertise	Contact information