

Request for Seed Grant Proposals

1. Introduction

The **Sustainable and Resilient Economy** (SRE) program is one of eight transformative initiatives funded by Ohio State’s Discovery Themes to address grand challenges that face our society. The mission of SRE is to address the key challenges of sustainable development by generating new knowledge and guiding solutions that enhance the efficiency of material and energy inputs, reduce adverse environmental and social impacts, and protect critical ecosystem functions and services. The scope of SRE is broad, as depicted in Figure 1. Our affiliated faculty are contributing to key knowledge domains related to the science of sustainability and resilience and developing holistic approaches that apply this knowledge to guide innovations in technologies, policies, and practices for both communities and enterprises from local to global scales. SRE fosters this work by building collaborative teams, attracting world-class faculty, and actively developing partnerships with industry and government. (See <https://discovery.osu.edu/SRE>.)

Figure 1: SCOPE OF THE SUSTAINABLE AND RESILIENT ECONOMY PROGRAM

Overarching SRE research challenge...	In the face of global forces of change—technological, economic, social, and environmental—how do innovations in technology or policy influence the sustainability and resilience of human systems, from individual enterprises to local and regional communities to global society?			
	Sustainability	Resilience		
Specific SRE application domains that correspond to stakeholder needs and priorities	Communities	Stewardship of regional and urban systems and resources to ensure human health and well-being	Development of smart, connected, adaptive communities that are prepared for disruptions	
	Enterprises	Development of products and processes that minimize waste and utilize renewable resources	Adaptation to turbulence and uncertainty in environmental and socioeconomic conditions	
Important SRE knowledge domains required for integrated assessment of sustainability & resilience	Behavior and governance	Social value and human well-being	Risk and uncertainty	Coupled human-natural systems

The intent of this Seed Grant program is to fund Ohio State teams engaged in strategic research activities that (i) build research capacity in one or more of the **SRE knowledge domains**, and (ii) clearly address an **SRE application domain**. We seek to fund projects that forge transdisciplinary connections among OSU faculty, staff, students and external partners and also leverage diverse talents, expertise, and resources through collaborative work. These seed grants are intended to generate new research activities or novel extensions of existing activities, rather than simply providing supplementary project funding. **Emphasis will be placed on funding proposals likely to produce tangible outputs that result in capacity building or extramural funding for Ohio State.** During the past 2 rounds, SRE awarded over \$320,000 in seed grants to 15 interdisciplinary teams, with a similar total in matching cost-share funds, and many of the resulting projects are expanding Ohio State’s research capacity. (See [Seed Grants](#)).

SRE 2017 Seed Grants at a Glance

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

Due dates: Letter of intent due: Feb. 15, 2017

Full proposal due: April 15, 2017

Awards announced: Aug. 15, 2017

Total funding: 4 to 6 awards of \$25,000 to \$50,000

Matching: Cost sharing from external or internal sources is highly recommended

2. Potential Topic Areas

Proposals are encouraged in any areas of interest to faculty teams and their partners that relate to the SRE program mission and stated intent of the Seed Grant program, as described above. For additional information about the SRE program, see <https://discovery.osu.edu/SRE>.

While seed grants are not constrained to specific topics, the following are examples of research areas that 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, social well-being and other trade-offs.
- 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.
- Methods or technologies that enable characterization and management of interdependencies among **food, energy, water, and material** supply chains and infrastructures, for the purpose of ensuring the resilience and sustainability of communities that depend on these critical resources.
- Investigation of innovative tools, frameworks, or methods that enable modeling, management, and/or adaptation to **risk and uncertainty** in critical community or enterprise systems.
- **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 Details

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.

- A. Scope of Projects:** Grants will support teams of university collaborators and external partners who engage in strategic research activities that most clearly meet the goals of the Seed Grant program, namely: (i) building capacity in one or more of the SRE knowledge domains and (ii) addressing an SRE application domain (see Page 1 above).
- B. Funding Available:** The total funding available is approximately \$200,000. The amount of funding for each grant may vary from \$25,000 or less to a maximum of \$50,000. For larger grants, we expect more leveraging of matching funds (see H. below).
- C. Fund Administration:** Grant funds will be transferred to an account designated by the department of the named Principal Investigator (P.I.), who will be responsible for administering this account.
- 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. SRE will provide a template for submission of these reports. They should be concise, written for a general audience, include appropriate graphics (e.g. photos, charts), and be suitable for publicizing SRE activity via online and print media.
- F. Eligibility:** Teams of faculty, staff, students, and/or external partners may apply. The P.I. must hold an OSU appointment or be an enrolled student with a faculty or staff advisor who will assist with managing the award. Team members' roles and responsibilities must be described on the team roster (see M. below), and each team member must provide a **signed commitment**. The size and structure of the teams is open, but we encourage diverse, interdisciplinary teams involving multiple departments and colleges. External collaborators may include investigators from other universities.
- 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 Funds:** Cost sharing through matching funds, either cash or in-kind, is highly encouraged. Funds may be obtained from internal sources such as the Office of Energy and the Environment, new faculty startup funds, colleges, centers, or departments, and other OSU grant programs, as well as from external partners. Proposals should identify the potential for securing additional support in order to continue project funding beyond the 2018-2019 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 describe how the project fits with the goals of the Seed Grant program, including (a) the innovative concept and rationale, (b) the objectives, approach, and expected outcomes, (c) team qualifications, and (d) estimated total budget and matching funds. The LOI will be reviewed within **two weeks**, and must be approved before full proposal submission. The LOI may be returned to the P.I. with suggestions for revision and resubmission.

Please e-mail the LOI in PDF format by **Feb. 15, 2017** 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 brevity is encouraged. 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:** Describe the qualifications of the key team members, the capacity of the team to succeed, and how the team will achieve effective interdisciplinary collaboration.
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 **April 15, 2017** 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 one or more SRE knowledge domains and expected contribution to the specified SRE application domain(s).
2. **Technical Promise:** Likelihood of meeting or exceeding the stated project objectives.
3. **Expected Impacts:** Potential benefits; likelihood of generating external funding.
4. **Team Qualifications:** Capacity of the interdisciplinary team to perform effectively.
5. **External collaboration:** Engagement of partners; matching resources (where applicable).

L. **Notification of Awards:** Applicants will be notified via e-mail about the outcomes of their proposals by **August 15, 2017**. A summary of the successful proposals will be published on the SRE website.

M. **Proposal attachments:** The following 3 pages provide templates for the required attachments. These attachments must be completed properly for the proposal to be considered.

- **Team Roster**
- **Budget Summary**
- **Suggested External Reviewers**



Seed Grant Application

TEAM ROSTER

Proposal Title:

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



Seed Grant Application

BUDGET SUMMARY

Proposal Title:

Item (<i>and brief description</i>)	Requested Funds	Matching Support
A. Salaries and Fringes		
B. Supplies		
C. Equipment		
D. Outreach		
E. Travel		
F. Services		
G. Other		
Totals (\$50,000 maximum)



Seed Grant Application

SUGGESTED EXTERNAL REVIEWERS

Proposal Title:

Name	Affiliation	Area of expertise	Contact information