Sustainable Regional Systems Research Networks (SRS RNs, NSF 24-533)

SRS Webinar

Tom Evans*, Ashley Pierce

Bruce Hamilton*, Fengfeng Ke, Hongmei Luo, Nora Savage, Anne-Marie Schmoltner, Robyn Smyth

*Co-chairs

March 05, 2024



NSF Sustainable Regional Systems Working Group

Seven Directorates and two Offices

- Directorate for Engineering
- Directorate for Social, Behavioral and Economic Sciences
- Directorate for Biological Sciences
- Directorate for STEM Education
- Directorate for Geosciences
- Directorate for Mathematical and Physical Sciences
- Directorate for Technology, Innovation and Partnerships
- Office of Integrative Activities
- Office of International Science and Engineering





Background for Sustainable Regional Systems

 Sustainable Regional Systems Research Networks (FY21) funded 2 full scale Research Networks and 21 Planning Grants

https://new.nsf.gov/funding/opportunities/sustainableregional-systems-research-networks-srs/505707/nsf20-611/solicitation

• NSF's Advisory Committee for Environmental Research and Education (AC ERE) 2018 report titled Sustainable Urban Systems: Articulating a Long-Term Convergence Research Agenda

https://www.nsf.gov/ere/ereweb/ac-ere/sustainable-urbansystems.pdf

• 27 workshops that explored concepts for potential Sustainable Regional Systems Research Networks in 2019

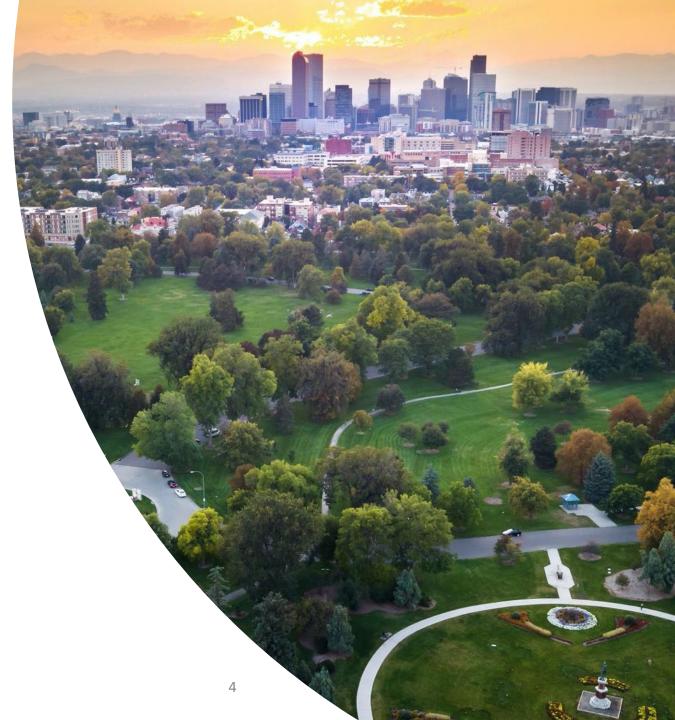
https://www.nsf.gov/ere/ereweb/c21c/awards.jsp



What is a Sustainable Regional System?

Connected urban and rural systems, including all systems in between, designed with the goal of measurably advancing the equitable wellbeing of people and the planet





Goal:

Fund convergent research and education that will advance sustainable regional systems science, engineering, and education to facilitate the transformation of current regional systems to enhance sustainability

Three potential perspectives

- Single urban systems/metropolitan regions and their connected rural systems
- Multiple urban systems and their connected rural systems
- Supra-aggregations of connected urban-rural systems

7 potential key elements

- Data and Methods
- Equity
- Generalizable Theories
- Modeling
- Outcomes
- Partner engagement
- Theories of Change



Projects do not need to have equal emphasis on urban vs. rural systems, a successful research network does not have to span all three scales

Scale

- A single neighborhood would not include the relevant interconnected systems that make up a region
- The study of multiple aspects of a single "system" (e.g., the food supply chain, including food waste, or transportation) is allowed, as long as ecological, technological, and social aspects are considered in depth

Solicitation Specific Review Criteria in <u>Solicitation</u> <u>Document</u>

FAQs are coming soon!





Research Networks

- Fundamental convergent research, education, and outreach addressing the sciences of sustainable regional systems
- Partnerships may embrace universities, colleges, practitioners, non-profit organizations, local governments, tribal governments, industry, community groups, and international collaborators
- 1 to 2 awards as cooperative agreements
- Not to exceed \$3 million per year for five years





Eligibility

- No restriction on # of proposals per organization
- PIs can submit no more than one proposal and may appear as PI, co-PI, or Senior Personnel on no more than one proposal.
- Institutions of Higher Education
- Non-profit, non-academic organizations
- For-profit organizations





Required Components

Proposal Titles: "SRS RN:..."

Project Description (25 pages)

- Scope and Scale
- Convergent Research
- Partnerships and Partner Engagement for Impact
- Diversity, Equity, Inclusion, and Access (DEIA)
- Social Sustainability
- Education and Education Research

Note:

• Broader Impacts - "See Sections 1-6 of the Project Description."





Additional Considerations and Cross Cutting Themes

- Proposals must be interdisciplinary and multiorganizational
- Proposals that address clean energy or climate solutions are encouraged
- Proposal that incorporate other ways of knowing or aspects of NSF INCLUDES are encouraged
- Proposers are encouraged to consider geographic and demographic diversity as appropriate
- NSF promotes international cooperation that links scientists and engineers from a range of disciplines and organizations (generally should have support or obtain funding through non-NSF sources)





A successful SRS RN Proposal will...

...clearly define the regional system(s) of study, the various components that make up the regional system(s) to be studied, the major topics that will frame the networks, and the goals of the project that will lead to more sustainable regional system(s).

Significant anticipated positive and negative outcomes should also be included in the proposal as well as impacts beyond the life of the project, including the scalability and transferability of the proposed solutions.

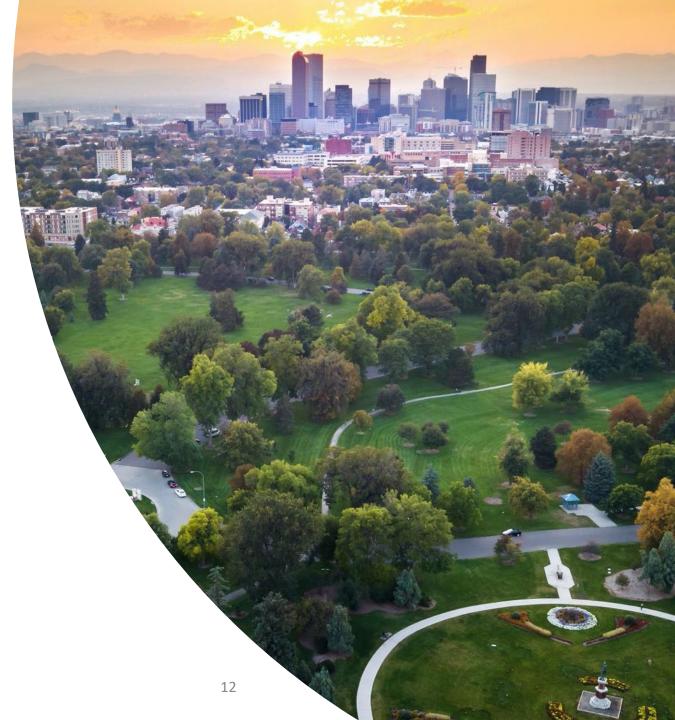




Required Documentation

- Biographical Sketches
- Budget
- Postdoctoral Mentoring Plan, if applicable
- Other supplementary documents
 - List of partner organizations
 - Project Management Plan
 - Results from prior NSF support (Note that this is not included in the project description)
 - Letters of collaboration
 - Other personnel biographical info, if applicable





Special Award Conditions

Attendance at an annual SRS RN awardee
Conference





Changes to the SRS RN from the last round

- There is no longer an option for Planning Grants. This solicitation will fund Research Network proposals for up to \$15 million and 5-year duration.
- Separately submitted collaborative proposals are now an option for this solicitation.
- The Directorate for Technology, Innovation, and Partnerships (TIP) is now participating in the SRS RNs solicitation.
- The Directorate for Computer and Information Science and Engineering (CISE) is no longer participating in the SRS RNs solicitation. Topics relevant to CISE are still encouraged in proposals.
- The "Diversity and Culture of Inclusion" section has been changed to the "Diversity, Equity, Inclusion, and Access (DEIA)" section and clarification has been added that "aspects of the DEIA section may be a focus of the SRS research as part of the Research Network activities".
- A "Social Sustainability" section has been added to address "the historical context of the region" and to include "communities most at risk or vulnerable as lead participants in sustainability and resilience research to reduce vulnerability to current and future social-environmental-technological issues."
- The "Education and Education Evaluation" section has been changed to the "Education and Education Research" section. Clarification on what education research is has been added.
- The "development of new tools and techniques to enable persons with disabilities to perform research on sustainable rural and urban systems" has been added to the program description.
- A Broader Impacts section is required it should state: "See Sections 1-6 of the Project Description."



An emphasis has been added to consider positive and negative environmental research impacts.

An emphasis has been added on including other ways of knowing, such as Indigenous Knowledge.



Sustainable Regional Systems Research Networks (SRS RN) Solicitation Timeline

	Date	Action
-	January 29, 2024	Solicitation posted
	March 05, 2024	Solicitation webinar
	Soon!	FAQs posted
	May 15, 2024	Proposal submission deadline
	October 2024	Interdisciplinary review panels
2	December 2024	Virtual reverse site visits
	April 2025	Awards
	September 1, 2025	Awards start





Questions?

SRS@nsf.gov

Solicitation:

https://new.nsf.gov/funding/opportunities/sustainable-regionalsystems-research-networks-srs/nsf24-533/solicitation



Image credits pp. 1-15, 17-18: Creative-Family via iStock; Image credits p. 16: Paolo Costa Baldi; David Wilson; NASA

Frequently Asked Questions (FAQs)

Do you have to have an awarded Planning Grant from the previous round of SRS RN to submit a proposal this year?

No, any team is allowed to submit a proposal regardless of previous success in SRS RN.

If I am on a current SRS RN award, can I be included on a new proposal?

Any individual that is currently leading an SRS RN Track 1 proposal awarded from NSF 20-611 cannot be a lead PI on a submission to this current solicitation. They can, however, be listed as a co-PI or Senior Personnel on no more than one submission for this current solicitation.





Frequently Asked Questions (FAQs)

I noticed that this solicitation does not include a Track 2 Planning Grant option. Are there any options for smaller projects?

This solicitation only offers SRS RNs for up to 5 years and \$15 million dollars. Future SRS opportunities will be subject to the availability of funds.

Can non-profit or industry personnel serve as Lead PI?

Yes, provided that the submitting organization agrees that the individual can serve in that role and that the submitting organization meets the requirements to submit a proposal to NSF. <u>Please see this section of</u> <u>the Proposal and Award Policies and Procedures</u> <u>Guide</u> for information on eligibility.



