# **NSF 25-527: Smart and Connected Communities (S&CC)**

# **Program Solicitation**

# **Document Information**

#### **Document History**

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#### **U.S. National Science Foundation**

Directorate for Computer and Information Science and Engineering

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**Directorate for STEM Education** 

Directorate for Engineering

Division of Civil, Mechanical and Manufacturing Innovation

Directorate for Social, Behavioral and Economic Sciences

Division of Behavioral and Cognitive Sciences

Division of Social and Economic Sciences

Directorate for Geosciences

# Preliminary Proposal Due Date(s) (required) (due by 5 p.m. submitting organization's local time):

February 20, 2025

September 08, 2025

Second Monday in September, Annually Thereafter

January 12, 2026

Second Monday in January, Annually Thereafter

# Full Proposal Target Date(s)

April 04, 2025

November 10, 2025

Second Monday in November, Annually Thereafter

March 09, 2026

Second Monday in March, Annually Thereafter

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# **Important Information And Revision Notes**

The Smart and Connected Communities (S&CC) program solicitation has been revised, and prospective Principal Investigators (PIs) are encouraged to read the solicitation carefully. Among the changes are the following:

- The Directorate for Geosciences is now participating in the S&CC program.
- The program now provides target dates for proposal submissions.
- S&CC Integrative Research Grants (SCC-IRG) proposals no longer have two distinct tracks and the new maximum budget for SCC-IRG proposals is \$1.5M.
- S&CC-Planning Grants (SCC-PG) have been renamed as S&CC-Development Grants (SCC-DG) and the Project Description page limit for this proposal type has been increased from 5 to 7 pages.
- The program now includes a Large-Scale Research (SCC-LSR) proposal category.
- The program now requires preliminary proposals for the SCC-IRG and SCC-LSR proposal categories.
- The previous S&CC requirement for the integration of technical and social sciences has changed. It now requires integration amongst two or more disciplines of relevance to the program's funding directorates and divisions.

- The Evaluation Plan section has updated language that strengthens requirements for research evaluation and experimentation.
- The Scalability, Sustainability, and Transferability Section has been removed from the Project Description requirements.
- The program will accept supplemental funding requests from S&CC award recipients for Transition to Practice activities.

Any proposal submitted in response to this solicitation should be submitted in accordance with the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) that is in effect for the relevant due date to which the proposal is being submitted. The NSF PAPPG is regularly revised and it is the responsibility of the proposer to ensure that the proposal meets the requirements specified in this solicitation and the applicable version of the PAPPG. Submitting a proposal prior to a specified deadline does not negate this requirement.

# **Summary Of Program Requirements**

#### **General Information**

#### **Program Title:**

Smart and Connected Communities (S&CC)

# **Synopsis of Program:**

The purpose of the NSF Smart and Connected Communities (S&CC) program solicitation is to accelerate the creation of novel intelligent technologies and concepts through high-risk/high-reward research that addresses major challenges and issues faced by communities across the US. A "smart and connected community" is defined as a community that synergistically integrates intelligent technologies with the natural and built environments and with the functions of civic institutions and organizations. Proposals submitted to the program should be designed to advance one or more of the following community priorities: economic opportunity and growth; safety and security; human and environmental health and wellness; accessibility of critical services and resources; and the overall quality of life for those who live, work, learn, or travel within the community. To meet the goals of the program, researchers should work with community stakeholders to identify and define challenges the community faces, using that interaction and input to generate high-impact, use-inspired, basic research that advances science and engineering.

# **Broadening Participation In STEM:**

NSF recognizes the unique lived experiences of individuals from communities that are underrepresented and/or underserved in science, technology, engineering, and mathematics (STEM) and the barriers to inclusion and access to STEM education and careers. NSF highly encourages the leadership, partnership, and contributions in all NSF opportunities of individuals who are members of such communities supported by NSF. This includes leading and designing STEM research and education proposals for funding; serving as peer reviewers, advisory committee members, and/or committee of visitor members; and serving as NSF leadership, program, and/or administrative staff. NSF also highly encourages demographically diverse institutions of higher education (IHEs) to lead, partner, and contribute to NSF opportunities on behalf of their research and education communities. NSF expects that all individuals, including those who are members of groups that are underrepresented and/or underserved in STEM, are treated equitably and inclusively in the Foundation's proposal and award process.

NSF encourages IHEs that enroll, educate, graduate, and employ individuals who are members of groups underrepresented and/or underserved in STEM education programs and careers to lead, partner, and contribute to NSF opportunities, including leading and designing STEM research and education proposals for funding. Such IHEs include, but may not be limited to, community colleges and two-year institutions, mission-based institutions such as Historically Black Colleges and Universities (HBCUs), Tribal Colleges and Universities (TCUs), women's colleges, and institutions that

primarily serve persons with disabilities, as well as institutions defined by enrollment such as Predominantly Undergraduate Institutions (PUIs), Minority-Serving Institutions (MSIs), and Hispanic Serving Institutions (HSIs).

"Broadening participation in STEM" is the comprehensive phrase used by NSF to refer to the Foundation's goal of increasing the representation and diversity of individuals, organizations, and geographic regions that contribute to STEM teaching, research, and innovation. To broaden participation in STEM, it is necessary to address issues of equity, inclusion, and access in STEM education, training, and careers. Whereas all NSF programs might support broadening participation components, some programs primarily focus on supporting broadening participation research and projects. Examples can be found on the NSF Broadening Participation in STEM website.

### Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- David Corman, Program Director, CISE/CNS, telephone: (703) 292-8754, email: <a href="mailto:dcorman@nsf.gov">dcorman@nsf.gov</a>
- Vishal Sharma, Program Director, CISE/CNS, telephone: (703) 292-8950, email: vsharma@nsf.gov
- Oleg V. Sokolsky, Program Director, CISE/CNS, telephone: (703) 292-4760, email: osokolsk@nsf.gov
- Abhishek Dubey, Program Director, CISE/CNS, telephone: (703) 292-7375, email: adubey@nsf.gov
- Ralph F. Wachter, Program Director, CISE/CNS, telephone: (703) 292-8950, email: <a href="mailto:rwachter@nsf.gov">rwachter@nsf.gov</a>
- Raj Acharya, Program Director, CISE/IIS, telephone: (703) 292-7978, email: racharya@nsf.gov
- Sylvia J. Spengler, Program Director, CISE/IIS, telephone: (703) 292-7347, email: <a href="mailto:sspengle@nsf.gov">sspengle@nsf.gov</a>
- Daan Liang, Program Director, ENG/CMMI, telephone: (703) 292-2441, email: dliang@nsf.gov
- Siqian Shen, Program Director, ENG/CMMI, telephone: (703) 292-7048, email: siqshen@nsf.gov
- Sara Kiesler, Program Director, SBE/SES, telephone: (703) 292-8643, email: <a href="mailto:skiesler@nsf.gov">skiesler@nsf.gov</a>
- Barbara L. Ransom, Program Director, GEO/RISE, telephone: (703) 292-7792, email: bransom@nsf.gov
- Leilah B. Lyons, Program Director, EDU/DRL, telephone: (703) 292-8620, email: <a href="mailto:llyons@nsf.gov">llyons@nsf.gov</a>

#### Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.041 --- Engineering
- 47.050 --- Geosciences
- 47.070 --- Computer and Information Science and Engineering
- 47.075 --- Social Behavioral and Economic Sciences
- 47.076 --- STEM Education

#### **Award Information**

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 20 to 40

Development Grants: 10 to 20

Integrative Research Grants: 10 to 20

Large-Scale Research Grants: 1

The estimated number of awards indicated above is for a given fiscal year and is dependent upon the proposals received and the degree to which proposals meet the solicitation goals, NSF merit review criteria, and solicitation-specific review criteria.

#### **Anticipated Funding Amount: \$23,260,000**

The anticipated funding amount indicated above is for a given fiscal year and is subject to the quality of proposals received and availability of funds.

#### **Eligibility Information**

#### **Who May Submit Proposals:**

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs): Two- and four-year IHEs (including community colleges)
  accredited in, and having a campus located in the US, acting on behalf of their faculty members.
  Special Instructions for International Branch Campuses of US IHEs: If the proposal includes
  funding to be provided to an international branch campus of a US institution of higher education
  (including through use of sub-awards and consultant arrangements), the proposer must explain
  the benefit(s) to the project of performance at the international branch campus, and justify why
  the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research laboratories, professional societies and similar organizations located in the U.S. that are directly associated with educational or research activities.

#### Who May Serve as PI:

There are no restrictions or limits.

#### Limit on Number of Proposals per Organization:

There are no restrictions or limits.

#### Limit on Number of Proposals per PI or co-PI:

For the S&CC program, during any contiguous 12-monthperiod, an individual may not participate as PI, co-PI, or Senior/Key Personnel in more than two proposals across all proposal categories. This limit will be applied beginning with this solicitation and will continue to apply to future versions of this solicitation, unless noted otherwise.

# **Proposal Preparation and Submission Instructions**

#### A. Proposal Preparation Instructions

- Letters of Intent: Not required
- **Preliminary Proposals:** Submission of Preliminary Proposals is required. Please see the full text of this solicitation for further information.

# Full Proposals:

- Full Proposals submitted via Research.gov: NSF Proposal and Award Policies and Procedures Guide (PAPPG) guidelines apply. The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=pappg.
- Full Proposals submitted via Grants.gov: NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov guidelines apply (Note: The NSF Grants.gov Application Guide is

available on the Grants.gov website and on the NSF website at: https://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=grantsgovguide).

# **B.** Budgetary Information

# • Cost Sharing Requirements:

Inclusion of voluntary committed cost sharing is prohibited.

#### • Indirect Cost (F&A) Limitations:

Not Applicable

# • Other Budgetary Limitations:

Not Applicable

#### C. Due Dates

• Preliminary Proposal Due Date(s) (required) (due by 5 p.m. submitting organization's local time):

February 20, 2025

September 08, 2025

Second Monday in September, Annually Thereafter

January 12, 2026

Second Monday in January, Annually Thereafter

#### • Full Proposal Target Date(s):

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March 09, 2026

Second Monday in March, Annually Thereafter

#### **Proposal Review Information Criteria**

#### **Merit Review Criteria:**

National Science Board approved criteria apply.

#### **Award Administration Information**

#### **Award Conditions:**

Additional award conditions apply. Please see the full text of this solicitation for further information.

# **Reporting Requirements:**

Additional reporting requirements apply. Please see the full text of this solicitation for further information.

#### I. Introduction

Communities are unique and constantly evolving as shifts in population size, demographics, economic opportunity, technology, built and natural environments, and available services impact overall community culture, needs, and opportunities. The goal of this solicitation is to accelerate the creation of the scientific and engineering foundations that underpin novel intelligent technologies, concepts, and solutions that address major societal challenges and will bring about new levels of economic opportunity and growth, safety and security, human and environmental health and wellness, and improve overall quality of life for people.

For purposes of this solicitation, communities are defined as having geographically-delineated boundaries, such as towns, cities, counties, neighborhoods, community districts, rural areas, tribal regions, and/or states with the capacity to engage in meaningful ways with the proposed research activities. A "smart and connected community" is, in turn, defined as a community that synergistically integrates intelligent technologies to address challenges in the natural and built environments and with the functions of civic institutions and organizations to improve the social, economic, and/or the environmental well-being of those who live, work, or travel within it.

## **II. Program Description**

#### A. Overview

The specific objectives of this solicitation are to: (1) support transformative, high-risk and high-reward scientific and engineering research that enables new intelligent capabilities for communities to improve quality of life for people; (2) foster the development of a skilled multidisciplinary and diverse research community that encompasses and integrates the perspectives of scientists and engineers supported by the NSF directorates and divisions participating in this solicitation; (3) integrate community perspectives with research activities to develop novel technologies and concepts that are directly informed by community needs and challenges (4) conduct robust and quantitative evaluation of research to validate outcomes.

Proposals submitted to this program must undertake interdisciplinary research that advances innovation beyond today's state-of-the-art in the "smart community" space. Proposed research must make fundamental contributions in two or more primary areas of interest to the participating directorates and divisions in the program. The S&CC program defines "primary areas of interest" as being computer and information sciences, civil and mechanical engineering, geosciences, and/or social, learning, and behavioral sciences. As an example, integration between disciplines in computer and information sciences and geosciences would be considered relevant to the program, However, integration of subdisciplines in only one primary area of interest to the program will not be considered relevant to this solicitation (e.g., a proposal that only makes contributions within social science subdisciplines). Project descriptions must comprehensively describe how a well-integrated, interdisciplinary research team will make contributions that are greater than the sum of each of the individual contributions.

The S&CC program requires researchers to work with community stakeholders to identify and define challenges they are facing, enabling those challenges to motivate use-inspired, research activities. For this solicitation, community stakeholders may include some or all the following: residents, neighborhood or community groups, nonprofit or philanthropic organizations, businesses; as well as civic or municipal organizations, including entities such as libraries, museums, educational institutions, public works departments, and health and social services agencies.

**Other programs:** Proposals with a research focus in non-participating NSF divisions or directorates should not be submitted to this solicitation. Additionally, proposers are encouraged to consider other programs at NSF that may align more closely with their overall goals and projected impact:

- Civic Innovation Challenge (CIVIC)
- Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science (SCH)
- Research on Innovative Technologies for Enhanced Learning (RITEL)
- Confronting Hazards, Impacts and Risks for a Resilient Planet (CHIRRP)

#### **B. Proposal Categories**

Proposals for research projects in the following proposal categories will be considered:

#### **S&CC Development Grants (SCC-DGs):**

Awards funded in this category will provide support for a period of one year and for up to \$150,000.

SCC-DG awards should prepare project teams to submit well-developed SCC-IRG or SCC-LSR proposals within a 12-month timeframe from award date. The proposal must describe its vision for a future IRG proposal and how the proposed research and activities during the development grant will prepare the team for achieving this vision. The range of planning activities to prepare for future IRG or LSR submissions include, but are not limited to, exploring the viability of high-risk/high-reward research concepts; effectively integrating the research perspectives of multiple disciplines; examining community contexts and building collaborations with relevant stakeholders; filling gaps in research and expertise; and refining research questions and hypotheses.

Additionally, the program may release calls for development grants on specific research and application areas of interest via <a href="Dear Colleague Letters">Dear Colleague Letters</a> to spur collaboration and research-capacity building in topics of national priority for federal government agencies.

#### **S&CC Integrative Research Grants (SCC-IRG)**

Awards funded in this category will provide support for a period of 3-4 years for up to \$1,500,000.

These awards will support transformative projects that advance fundamental research in technological, environmental, and/or social and behavioral disciplines by conducting use-inspired research motivated by major challenges and issues faced by communities across the US. IRG proposals must be well-integrated across multiple disciplines and make a convincing case that the interdisciplinary contributions of the project team will be greater than the sum of the individual disciplinary contributions. IRG proposals are also required to have robust evaluation plans with clearly defined methodologies and metrics for assessing and validating research outcomes and goals.

# **S&CC Large-Scale Research (SCC-LSR)**

Large-Scale Research projects may be requested with total budgets ranging from \$4,000,000 to \$5,000,000 for periods of up to four or five years.

These proposals must clearly identify and address critical S&CC science and engineering challenges that cannot be achieved by a set of smaller IRG projects. LSR projects should also look to push the boundaries of smart and connected communities research well beyond today's state-of-the-art systems and capabilities. The goal, scale, and degree of integration of the proposed research must clearly require a major investment. The research plan must include validation of theory through empirical demonstration via prototypes and/or testbeds. There must also be a robust and comprehensive plan for sharing results, including testbeds and artifacts, with the broader science and engineering research communities, including through the S&CC Virtual Organization (S&CC-VO). These proposals are expected to go beyond simply sharing PI meeting artifacts (such as slides) via the S&CC-VO. In addition, LSR proposals must describe education approaches to prepare students for careers in S&CC practice and research. They should also address how education goals extend beyond the participating organization(s). Proposals must also include actionable components that increase participation of underrepresented groups in science and engineering.

# C. Project Artifacts and Principal Investigator Meetings

All S&CC award recipients will prepare a one-page graphic summary of their project that will be submitted no later than the due date of the first annual report and at the end of the award period. A five-minute project video is also required for all SCC-IRG and SCC-LSR recipients and will be due at the end of the award period. The video should present major project accomplishments. Award recipients must provide NSF permission to publish their video online for public access and/or to share it with interested parties. NSF anticipates the documents may be posted on the S&CC Virtual Organization or other appropriate website.

Attendance at the annual S&CC PI meeting is required for lead PIs and one additional project representative (co-PI or community partner). Commensurate costs to attend these should be built into annual proposal budgets. Travel to the meeting for key community partners of S&CC projects should be included. If the project's Lead PI is not able to attend, a designated proxy can attend in their absence but only if prior approval has been received from the cognizant NSF Program Officer. In addition to project PIs, the event may also include representatives from academia, industry, government, and community organizations. The purpose of the PI meeting is to accelerate dissemination of ideas and lessons-learned among researchers and community stakeholders; build a research workforce able to address the challenges of smart and connected communities; and catalyze new collaborations.

#### D. Transition to Practice (TTP) Supplements

The S&CC program encourages those projects funded by the program that have made and demonstrated significant progress during their initial period of performance (at least 2 years since award date) to submit high-impact supplemental funding requests for very specific activities that may lead to real-world adoption of research and successful outcomes by clearly identified partners. Before submitting a TTP supplemental funding request, the PI must receive approval from their cognizant NSF PO.

#### **III. Award Information**

Anticipated Type of Award: Standard Grant or Continuing Grant

#### **Estimated Number of Awards:**

Development Grants: 10 to 20

Integrative Research Grants: 10 to 20

Large-Scale Research Grants: 1

The estimated number of awards indicated above is for a given fiscal year and is dependent upon the proposals received and the degree to which proposals meet the solicitation goals, NSF merit review criteria, and solicitation-specific review criteria.

# **Anticipated Funding Amount: \$23.26M**

Estimated program budget, number of awards and average award size/duration are subject to the availability of funds and quality of proposals received.

# **IV. Eligibility Information**

#### **Who May Submit Proposals:**

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs): Two- and four-year IHEs (including community colleges)
  accredited in, and having a campus located in the US, acting on behalf of their faculty members.
  Special Instructions for International Branch Campuses of US IHEs: If the proposal includes
  funding to be provided to an international branch campus of a US institution of higher education
  (including through use of sub-awards and consultant arrangements), the proposer must explain
  the benefit(s) to the project of performance at the international branch campus, and justify why
  the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research laboratories, professional societies and similar organizations located in the U.S. that are directly associated with educational or research activities.

#### Who May Serve as PI:

There are no restrictions or limits.

#### Limit on Number of Proposals per Organization:

There are no restrictions or limits.

#### Limit on Number of Proposals per PI or co-PI:

For the S&CC program, during any contiguous 12-monthperiod, an individual may not participate as PI, co-PI, or Senior/Key Personnel in more than two proposals across all proposal categories. This limit will be applied beginning with this solicitation and will continue to apply to future versions of this solicitation, unless noted otherwise.

# V. Proposal Preparation And Submission Instructions

#### A. Proposal Preparation Instructions

**Preliminary Proposals** (*required*): Preliminary proposals are required and must be submitted via Research.gov, even if full proposals will be submitted via Grants.gov.

**Preliminary proposals are required for SCC-IRG and SCC-LSR proposals only** and are required to be eligible to submit a full SCC-IRG or SCC-LSR proposal. Full proposal submissions for both proposal categories that did not provide a preliminary proposal will be returned without review. The NSF decision made on the preliminary proposal is advisory only (encourage or discourage submission) and may include feedback on proposed activities, including anticipated budgets.

Proposers should carefully note the target dates for both preliminary and full proposals. If you plan to submit a full proposal by the April 2025 target date, make sure to submit your preliminary proposal by its February target date. If you're aiming for the November target date for full proposals, submit your preliminary proposal by its September target date. And in 2026, if you plan to submit a full proposal by the March 2026 target date, make sure to submit your preliminary proposal by its January target date. This timing helps NSF give you feedback on whether to proceed with your full proposal within 30 days of the April or November target dates for full proposal submissions.

Required components of preliminary proposals are given below. Page limitations given here will be enforced, and preliminary proposals that are not compliant will be returned without review. If there are multiple organizations involved in a project, a single preliminary proposal should be submitted and that should come from the lead organization.

Preliminary proposals consist of four elements:

- 1. Cover Sheet;
- 2. Project Summary;
- 3. Project Description; and
- 4. Project Personnel and Partner Institutions.

**Preliminary Proposal Set-Up:** Select "Prepare New Preliminary Proposal" in Research.gov. Search for and select this solicitation title in Step One of the Preliminary Proposal wizard. Select "Single proposal (with or without sub-awards). Separately submitted collaborative proposals will be returned without review.

**Title:** The Proposal Title should begin with "SCC-IRG Preliminary Proposal" or "SCC-LSR Preliminary Proposal", followed by a colon, followed by the project title.

**Project Summary** (1-page limit): The project summary may not exceed **one page** and must consist of three clearly labeled sections:

1. **Overview:** A summary of the challenge to be tackled and its importance, how the project integrates different fields and partners, and how it builds research capacity-building and community engagement;

- 2. **Intellectual Merit:** Provide a brief summary of the intellectual merit of the project, describing potential outcomes and fundamental and integrative research advances; and
- 3. **Broader Impacts:** Provide a brief summary of the broader impacts of the proposed project, including potential impacts on the targeted community, society writ large, the economy, and science and/or engineering.

**Project Description** (2-page limit): The Project Description of the preliminary proposal is limited to two pages and must consist of the following headings and associated text:

- 1. **Vision and Goals**: Describe the vision and goals of the proposed research. Briefly describe how the project will contribute to scientific and technical advancements and its potential impacts on the engaged community.
- 2. Integrative Research Approach: Describe the project's plan for integrative research and community engagement. Provide a discussion on the novelty of the proposed work, how the expected outcomes go beyond today's state of the art, and the generalizability of its outputs beyond addressing an application domain problem. Additionally, identify the disciplines to be integrated and the relevance of the research to the funding directorates and divisions for the S&CC program. Define the community and associated stakeholders and list the various disciplines needed to address the challenge being undertaken. Discuss how the community will be incorporated into the project plan and research. Briefly describe the approach for evaluation and metrics to be employed.
- 3. **Broader Impacts:** Describe the anticipated and planned broader impacts of the proposed project, including potential impacts on the targeted community, society writ large, the economy, and science and/or engineering.

**Project Personnel and Partner Institutions** (1-page limit): Provide current, accurate information for all personnel and organizations involved in the project. Follow the same format as described for Project Personnel and Partner Institutions in the Full Proposal Preparation Instructions below. **Submit as a supplementary document.** 

The following sections are not required for preliminary proposals and must not be included: "Results from Prior NSF Support"; "Budget and Budget Justification"; "Facilities, Equipment and Other Resources"; "Biographical Sketches". "Current and Pending (Other) Support"; "Collaborators and Other Affiliations Information", "Synergistic Activities", "Data Management and Sharing Plan", and "Mentoring Plan". Preliminary proposals containing items other than those required above will be returned without review

**Full Proposal Preparation Instructions**: Proposers may opt to submit proposals in response to this Program Solicitation via Research.gov or Grants.gov.

- Full Proposals submitted via Research.gov: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the *NSF Proposal and Award Policies and Procedures Guide* (PAPPG). The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=pappg. Paper copies of the PAPPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov. The Prepare New Proposal setup will prompt you for the program solicitation number.
- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov. The complete text of the NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at:

  (https://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=grantsgovguide). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

See PAPPG Chapter II.D.2 for guidance on the required sections of a full research proposal submitted to NSF. Please note that the proposal preparation instructions provided in this program solicitation may deviate from the PAPPG instructions.

It is strongly encouraged that institutions submitting to NSF for the first time review the Prospective New Awardee Guide.

The following information supplements the guidelines and requirements in the NSF PAPPG and NSF Grants.gov Application Guide:

**Multi-Organizational Proposals:** For proposals involving multiple organizations, the proposal must be submitted by a lead organization. Funding for all other participating institutions/organizations must be made through subawards. Collaborative proposals submitted as separate submissions from multiple organizations are not permitted and will be returned without review. PAPPG Chapter II.E.3 provides additional information on collaborative proposals.

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#### Title:

The title of the proposal must begin with "SCC-DG", "SCC-IRG", or "SCC-LSR" depending on the proposal category.

The rest of the title should be a concise representation of the project and its goal(s) The title should be suitable for use in the public press.

#### **Project Description:**

Project Descriptions for SCC-IRG and SCC-LSR proposals are limited to 15 pages, SCC-DG proposals are limited to 7 pages. SCC-IRG and SCC-LSR project descriptions exceeding 15 pages or SCC-DG proposals exceeding 7 pages will be returned without review.

All proposals must include sections required by the PAPPG, including a separate section labeled "Broader Impacts" and Results from Prior NSF Support.

The Project Description must provide details on an integrative research approach and describe how the community engagement components infuse and support the proposed research. In addition to the sections required by the PAPPG, it must include separate bold headed sections as described below under Project Description Components. **Proposals lacking any of the below sections or subsections will be returned without review.** All four components described below are required for SCC-IRG and SCC-LSR proposals. For SCC-DG proposals, only the first two components (Integrative Research and Community Engagement) are required.

# 1. Integrative Research: SCC-DG, -IRG, and -LSR proposals

The Integrative Research section is the intellectual heart of the Project Description. The section should outline the interdisciplinary research to be undertaken, the fields involved, and the fundamental scientific or engineering contribution the work will make that are relevant to the NSF Directorates and Divisions listed as sponsoring the program. Proposals should articulate the nature of the high-risk/high-reward research to be undertaken and address potential risks and mitigation approaches. The potential for transformative scientific and societal impact should also be discussed, if the project is successful. Proposals should be motivated by challenging and important research areas that blend critical needs of communities and expertise from fields represented by the sponsoring NSF Directorates.

- For **SCC-DG proposals only**, a subsection called "**Vision for a Future Full Proposal**" should be included. This section must identify the project team's goal for either an IRG or LSR proposal.
- For all three proposal categories, a subsection titled **S&CC Research Focus** is required where the PI must identify the two or more primary research areas and disciplines in which the novel and foundational research contributions are being made. This is not intended to be a list of areas but a focused discussion, clearly describing the focus and relevance to the program and its participating funders.

Note that the scope of research will vary by proposal category:

• For SCC-DG proposals, integrative research may be more exploratory, focusing on early-stage concepts that require further refinement and scoping through project activities.

• For SCC-IRG and SCC-Large proposals, the research is expected to be well-reasoned, mature in its conception, strongly integrated across disciplines, and supported with clearly defined aims for achieving scientific and technological impact that support critical community needs.

#### 2. Community Engagement: SCC-DG, -IRG, and -LSR proposals

Proposals should clearly identify and define the targeted community and the participating stakeholders. Proposals should also describe activities that reflect meaningful community engagement, considering community stakeholders and their participation and input as integral to success of the research. Investigators and community stakeholders should work closely to develop, implement, and evaluate creative approaches to accomplish the goals of the proposed research and overcome a compelling community challenge.

Community stakeholders may involve any of the following: residents, neighborhood or community groups, nonprofit or philanthropic organizations, businesses, health and social services agencies, and municipal entities that could include libraries, museums, public works departments, and/or educational institutions. Community stakeholder engagement can leverage partnerships with regional stakeholders including local, county, state, and tribal governments and departments, and/or regional cooperative initiatives. The budget should take into consideration community interactions and demonstrate that community participants, as appropriate, are being equitably compensated for their contribution.

Note that the nature of the community engagement will vary by proposal category:

- For SCC-DG proposals, community engagement should be co-design in planning and establishing research direction-setting and may include activities that build and strengthen trust and additional community engagement.
- For SCC-IRG and SCC-Large proposals, the community engagement piece is expected to be mature, substantive, and robust.

#### 3. Evaluation Plan: SCC-IRG and -LSR proposals only

The proposal Evaluation Plan should clearly define the methods and metrics for evaluating success of the proposed research activities and goals. In this section, the proposers should clearly describe how research hypotheses will be confirmed. This should be considered as an important section whereby the PI demonstrates their insights into the proposed research by clearly describing how the research hypotheses will be confirmed and demonstrated through realistic in-context experiments.

The Evaluation Plan should include details on how both the research and its outcomes will be validated and demonstrated through testing and implementation within controlled environments and/or real-world contexts through full or sub-scale prototypes and/or simulations. This section should include project milestones and timelines, with details of the specific evaluation metrics, methodologies and criteria that will be employed to determine process and/or project success.

#### 4. Management Plan: SCC-IRG and -LSR proposals only

Researchers from diverse fields and community stakeholders are expected to work collaboratively and interdependently to create a shared vision of the project and to accelerate the rate of discoveries. Each SCC-IRG and SCC-Large proposal must contain a Management Plan that specifies the roles and responsibilities of the collaborating Pl, co-Pls, other Senior Personnel, paid consultants, and stakeholder participants. It must also describe the expertise of team members undertaking the research. A list of key personnel is required. This includes their name and job title, their institutional /organizational affiliation, and the role the key community participants play.

The plan must address communications between partner entities and fields as well as how the project will be managed across institutions, and community entities. It should also identify collaboration mechanisms that enable integration of the entire team. The plan must include a timeline showing principal tasks, milestones, and interactions between the various team members.

### **Supplementary Documents:**

- **1. Project Personnel and Partner Institutions:** Provide information for all organization or partnering entities involved in the project and provide a list of all associated personnel, including their institutional/organizational affiliation. This list of personnel must be numbered, grouped according to associated institution/organization, and conform to the below format:
  - Keisha Johnson; XYZ University; PI
  - Neil Gupta; University of PQR; Senior/Key Personnel
  - Xavier Brown; XYZ University; Postdoc
  - Marc Garcia; ABC Inc.; Funded Consultant
  - Bob Adams; HHH Community organization, Funded Consultant
  - Maria White; XYX Govt organization; Unfunded Collaborator
  - Lucy Wang; ZZZ University; Subawardee
- **2. Letters of Collaboration:** For all substantial collaborations and engagements (included or not included in the budget) with partner organizations including communities described in the Project Description, Letters of Collaboration are strongly encouraged. These should be provided in the Supplementary Documents section of the proposal and follow the recommended format specified in the PAPPG. Letters of Collaboration should not contain endorsements or evaluation of the proposed project. Collaborative activities that are identified in the budget should follow the instructions in the PAPPG. Any substantial collaboration with individuals not included in the budget should also be described in the Facilities, Equipment and Other Resources section of the proposal and documented in a Letter of Collaboration from each collaborator.

#### **B. Budgetary Information**

#### **Cost Sharing:**

Inclusion of voluntary committed cost sharing is prohibited.

#### **Budget Preparation Instructions:**

Budgets for all projects must include funding for one or more designated S&CC project representatives (PI/co-PI/Senior Personnel or NSF-approved replacement) to attend annual S&CC PI meetings during the proposed lifetime of the award and are encouraged to include funding for attendance of one community stakeholder (see Section II of this program solicitation). Proposers are also encouraged to consider including funding for community stakeholder participation in the project as part of the project budget or explain why this does not make sense or is not possible.

#### C. Due Dates

• Preliminary Proposal Due Date(s) (required) (due by 5 p.m. submitting organization's local time):

February 20, 2025

September 08, 2025

Second Monday in September, Annually Thereafter

January 12, 2026

Second Monday in January, Annually Thereafter

• Full Proposal Target Date(s):

April 04, 2025

November 10, 2025

Second Monday in November, Annually Thereafter

March 09, 2026

Second Monday in March, Annually Thereafter

#### D. Research.gov/Grants.gov Requirements

#### For Proposals Submitted Via Research.gov:

To prepare and submit a proposal via Research.gov, see detailed technical instructions available at: <a href="https://www.research.gov/research-portal/appmanager/base/desktop?">https://www.research.gov/research-portal/appmanager/base/desktop?</a>
<a href="mailto:nfpb=true&pageLabel=research-portal/appmanager/base/desktop/ProposalPreparationanc">nfpb=true&pageLabel=research-portal/appmanager/base/desktop/ProposalPreparationanc</a>
For Research.gov user support, call the Research.gov Help Desk at 1-800-381-1532 or e-mail <a href="mailto:rgov@nsf.gov">rgov@nsf.gov</a>. The Research.gov Help Desk answers general technical questions related to the use of the Research.gov system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

#### For Proposals Submitted Via Grants.gov:

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website.

Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: <a href="https://www.grants.gov/applicants">https://www.grants.gov/applicants</a>. In addition, the NSF Grants.gov Application Guide (see link in Section V.A) provides instructions regarding the technical preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: <a href="mailto:support@grants.gov">support@grants.gov</a>. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

**Submitting the Proposal:** Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to Research.gov for further processing.

The NSF <u>Grants.gov Proposal Processing in Research.gov informational page</u> provides submission guidance to applicants and links to helpful resources including the NSF <u>Grants.gov Application Guide</u>, <u>Grants.gov Proposal Processing in Research.gov how-to guide</u>, and <u>Grants.gov Submitted Proposals Frequently Asked Questions</u>. Grants.gov proposals must pass all NSF pre-check and post-check validations in order to be accepted by Research.gov at NSF.

When submitting via Grants.gov, NSF strongly recommends applicants initiate proposal submission at least five business days in advance of a deadline to allow adequate time to address NSF compliance errors and resubmissions by 5:00 p.m. submitting organization's local time on the deadline. Please note that some errors cannot be corrected in Grants.gov. Once a proposal passes pre-checks but fails any post-check, an applicant can only correct and submit the in-progress proposal in Research.gov.

Proposers that submitted via Research.gov may use Research.gov to verify the status of their submission to NSF. For proposers that submitted via Grants.gov, until an application has been received and validated by NSF, the Authorized Organizational Representative may check the status of an application on Grants.gov. After proposers have received an email notification from NSF, Research.gov should be used to check the status of an application.

#### **VI. NSF Proposal Processing And Review Procedures**

Proposals received by NSF are assigned to the appropriate NSF program for acknowledgement and, if they meet NSF requirements, for review. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF either as *ad hoc* reviewers, panelists, or both, who

are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal. In addition, Program Officers may obtain comments from site visits before recommending final action on proposals. Senior NSF staff further review recommendations for awards. A flowchart that depicts the entire NSF proposal and award process (and associated timeline) is included in PAPPG Exhibit III-1.

A comprehensive description of the Foundation's merit review process is available on the NSF website at: <a href="https://www.nsf.gov/bfa/dias/policy/merit review/">https://www.nsf.gov/bfa/dias/policy/merit review/</a>.

Proposers should also be aware of core strategies that are essential to the fulfillment of NSF's mission, as articulated in Leading the World in Discovery and Innovation, STEM Talent Development and the Delivery of Benefits from Research - NSF Strategic Plan for Fiscal Years (FY) 2022 - 2026. These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

One of the strategic objectives in support of NSF's mission is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions must recruit, train, and prepare a diverse STEM workforce to advance the frontiers of science and participate in the U.S. technology-based economy. NSF's contribution to the national innovation ecosystem is to provide cutting-edge research under the guidance of the Nation's most creative scientists and engineers. NSF also supports development of a strong science, technology, engineering, and mathematics (STEM) workforce by investing in building the knowledge that informs improvements in STEM teaching and learning.

NSF's mission calls for the broadening of opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in STEM disciplines, which is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

#### A. Merit Review Principles and Criteria

The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF's mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

#### 1. Merit Review Principles

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary federal agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

- All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
- NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These "Broader Impacts" may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project

- activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
- Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping
  in mind the likely correlation between the effect of broader impacts and the resources provided to implement
  projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful.
  Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the
  individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities.

These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

#### 2. Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. **Both** criteria are to be given **full consideration** during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. (PAPPG Chapter II.D.2.d(i). contains additional information for use by proposers in development of the Project Description section of the proposal). Reviewers are strongly encouraged to review the criteria, including PAPPG Chapter II.D.2.d(i), prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- Intellectual Merit: The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

- 1. What is the potential for the proposed activity to
  - a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
  - b. Benefit society or advance desired societal outcomes (Broader Impacts)?
- 2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
- 3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
- 4. How well qualified is the individual, team, or organization to conduct the proposed activities?
- 5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values

the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and other underrepresented groups in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education.

Proposers are reminded that reviewers will also be asked to review the Data Management and Sharing Plan and the Mentoring Plan, as appropriate.

#### **B.** Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or Panel Review, Internal NSF Review, or Reverse Site Review.

Reviewers will be asked to evaluate proposals using two National Science Board approved merit review criteria and, if applicable, additional program specific criteria. A summary rating and accompanying narrative will generally be completed and submitted by each reviewer and/or panel. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF strives to be able to tell proposers whether their proposals have been declined or recommended for funding within six months. Large or particularly complex proposals or proposals from new recipients may require additional review and processing time. The time interval begins on the deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director acts upon the Program Officer's recommendation.

After programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements or the Division of Acquisition and Cooperative Support for review of business, financial, and policy implications. After an administrative review has occurred, Grants and Agreements Officers perform the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

Once an award or declination decision has been made, Principal Investigators are provided feedback about their proposals. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers or any reviewer-identifying information, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

#### **VII. Award Administration Information**

#### A. Notification of the Award

Notification of the award is made to *the submitting organization* by an NSF Grants and Agreements Officer. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

#### **B. Award Conditions**

An NSF award consists of: (1) the award notice, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF

has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award notice; (4) the applicable award conditions, such as Grant General Conditions (GC-1)\*; and (5) any announcement or other NSF issuance that may be incorporated by reference in the award notice. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

\*These documents may be accessed electronically on NSF's Website at <a href="https://www.nsf.gov/awards/managing/award">https://www.nsf.gov/awards/managing/award</a> conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from <a href="mailto:nsfpubs@nsf.gov">nsfpubs@nsf.gov</a>.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF *Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub summ.jsp?ods key=pappg.

#### **Administrative and National Policy Requirements**

#### **Build America, Buy America**

As expressed in Executive Order 14005, Ensuring the Future is Made in All of America by All of America's Workers (86 FR 7475), it is the policy of the executive branch to use terms and conditions of Federal financial assistance awards to maximize, consistent with law, the use of goods, products, and materials produced in, and services offered in, the United States.

Consistent with the requirements of the Build America, Buy America Act (Pub. L. 117-58, Division G, Title IX, Subtitle A, November 15, 2021), no funding made available through this funding opportunity may be obligated for infrastructure projects under an award unless all iron, steel, manufactured products, and construction materials used in the project are produced in the United States. For additional information, visit NSF's <u>Build America</u>, <u>Buy America</u> webpage.

#### **Special Award Conditions:**

For every S&CC award, one or more designated project representatives (PI/co-PI/Senior Personnel or NSF-approved replacement) must attend annual S&CC PI meetings throughout the duration of the grant.

As a condition of every S&CC award, the recipient agrees to submit requested project data for the purpose of program evaluation to an NSF third-party evaluator.

Attribution of support in publications must acknowledge the National Science Foundation, the award number, and the program, by including the phrase, "as part of the NSF Smart & Connected Communities Program."

#### **C. Reporting Requirements**

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer no later than 90 days prior to the end of the current budget period. (Some programs or awards require submission of more frequent project reports). No later than 120 days following expiration of a grant, the PI also is required to submit a final annual project report, and a project outcomes report for the general public.

Failure to provide the required annual or final annual project reports, or the project outcomes report, will delay NSF review and processing of any future funding increments as well as any pending proposals for all identified PIs and co-PIs on a given award. PIs should examine the formats of the required reports in advance to assure availability of required data.

Pls are required to use NSF's electronic project-reporting system, available through Research.gov, for preparation and submission of annual and final annual project reports. Such reports provide information on accomplishments, project

participants (individual and organizational), publications, and other specific products and impacts of the project. Submission of the report via Research.gov constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report also must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.

More comprehensive information on NSF Reporting Requirements and other important information on the administration of NSF awards is contained in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at <a href="https://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=pappg">https://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=pappg</a>.

All S&CC award recipients will prepare a one-page graphic summary of their project that will be submitted no later than the due date of the first annual report and at the end of the award period. A five-minute project video is also required for all SCC-IRG and SCC-LSR recipients and will be due at the end of the award period. The video should present major project accomplishments.

The additional reporting requirements identified in this solicitation are undergoing a separate approval process by the Office of Management and Budget (OMB) in accordance with the Paperwork Reduction Act.

# **VIII. Agency Contacts**

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- David Corman, Program Director, CISE/CNS, telephone: (703) 292-8754, email: <a href="mailto:dcorman@nsf.gov">dcorman@nsf.gov</a>
- Vishal Sharma, Program Director, CISE/CNS, telephone: (703) 292-8950, email: vsharma@nsf.gov
- Oleg V. Sokolsky, Program Director, CISE/CNS, telephone: (703) 292-4760, email: <a href="mailto:osokolsk@nsf.gov">osokolsk@nsf.gov</a>
- Abhishek Dubey, Program Director, CISE/CNS, telephone: (703) 292-7375, email: adubey@nsf.gov
- Ralph F. Wachter, Program Director, CISE/CNS, telephone: (703) 292-8950, email: <a href="mailto:rwachter@nsf.gov">rwachter@nsf.gov</a>
- Raj Acharya, Program Director, CISE/IIS, telephone: (703) 292-7978, email: racharya@nsf.gov
- Sylvia J. Spengler, Program Director, CISE/IIS, telephone: (703) 292-7347, email: <a href="mailto:sspengle@nsf.gov">sspengle@nsf.gov</a>
- Daan Liang, Program Director, ENG/CMMI, telephone: (703) 292-2441, email: dliang@nsf.gov
- Siqian Shen, Program Director, ENG/CMMI, telephone: (703) 292-7048, email: siqshen@nsf.gov
- Sara Kiesler, Program Director, SBE/SES, telephone: (703) 292-8643, email: <a href="mailto:skiesler@nsf.gov">skiesler@nsf.gov</a>
- Barbara L. Ransom, Program Director, GEO/RISE, telephone: (703) 292-7792, email: bransom@nsf.gov
- Leilah B. Lyons, Program Director, EDU/DRL, telephone: (703) 292-8620, email: <a href="mailto:llyons@nsf.gov">llyons@nsf.gov</a>

For questions related to the use of NSF systems contact:

- NSF Help Desk: 1-800-381-1532
- Research.gov Help Desk e-mail: rgov@nsf.gov

For questions relating to Grants.gov contact:

• Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via

telephone: 1-800-518-4726; e-mail: <a href="mailto:support@grants.gov">support@grants.gov</a>.

#### IX. Other Information

The NSF website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this website by potential proposers is strongly encouraged. In addition, "NSF Update" is an information-delivery system designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF <u>Grants Conferences</u>. Subscribers are informed through e-mail or the user's Web browser each time new publications are issued that match their identified interests. "NSF Update" also is available on <u>NSF's website</u>.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this mechanism. Further information on Grants.gov may be obtained at <a href="https://www.grants.gov">https://www.grants.gov</a>.

#### **About The National Science Foundation**

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See the NSF Proposal & Award Policies & Procedures Guide Chapter II.F.7 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at <a href="https://www.nsf.gov">https://www.nsf.gov</a>

• Location: 2415 Eisenhower Avenue, Alexandria, VA 22314

• For General Information (703) 292-5111

(NSF Information Center):

• **TDD** (for the hearing-impaired): (703) 292-5090

• To Order Publications or Forms:

Send an e-mail to: <a href="mailto:nsfpubs@nsf.gov">nsfpubs@nsf.gov</a>

or telephone: (703) 292-8134

• To Locate NSF Employees: (703) 292-5111

# **Privacy Act And Public Burden Statements**

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by proposers will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/recipients to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies or other entities needing information regarding proposers or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See <u>System of Record Notices</u>, <u>NSF-50</u>, "Principal Investigator/Proposal File and Associated Records." Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton Reports Clearance Officer Policy Office, Division of Institution and Award Support Office of Budget, Finance, and Award Management National Science Foundation Alexandria, VA 22314

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