NSF 25-523: EPSCoR Research Infrastructure Improvement Program: EPSCoR Collaborations for Optimizing Research Ecosystems (E-CORE)

Program Solicitation

Document Information

Document History

- **Posted:** December 13, 2024
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View the program page

U.S. National Science Foundation
Office of Integrative Activities

Full Proposal Deadline(s) (due by 5 p.m. submitting organization's local time):

July 15, 2025

Third Tuesday in July, Annually Thereafter

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Important Information And Revision Notes

- The name of the program was changed to EPSCoR Research Infrastructure Improvement Program: EPSCoR Collaborations for Optimizing Research Ecosystems (E-CORE)
- The total award budget was increased to $10 million for the initial four-year award period.
- The eligibility criteria were expanded to include jurisdictional governments and non-lead participating organizations in active RII Track-1 and E-CORE awards.
- Eligibility was expanded to include a Jurisdictional Science and Technology (S&T) Plan, or an equivalent plan.
- In the "4. Budget and Budget Justification" part of the "V. A. Proposal Preparation Instructions" Section, the guidance was changed to allow subawards to be made to lead organizations in active RII Track-1 and E-CORE awards to facilitate coordination and collaboration with pending E-CORE projects.
- Roles within the Administrative Core and Jurisdictional Steering Committee were further clarified.
- Guidance was added regarding the expectations for building connections to a jurisdiction's existing and future jurisdiction-wide research capacity building awards, and EPSCoR Jurisdiction/State Office where present, hereafter referred to as "Jurisdiction/State Office".
- A requirement was added for notifying the Jurisdiction Steering Committee of an E-CORE proposal submission
- The requirement that each collaborating organization be represented by a PI or at least one co-PI was expanded to include other senior/key personnel.
- The requirement to allocate 5% of the budget to the Jurisdictional Steering Committee was removed.
- The number of letters of collaboration that proposers may submit was increased to ten (10) letters of collaboration.

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:

EPSCoR Research Infrastructure Improvement Program: EPSCoR Collaborations for Optimizing Research Ecosystems (E-CORE)

Synopsis of Program:

The Established Program to Stimulate Competitive Research (EPSCoR) supports the U.S. National Science Foundation (NSF) mission by promoting nationwide scientific progress. Through this program, NSF fosters partnerships among academic institutions, government entities, industry, and non-profits. These collaborations aim to drive long-term improvements in research infrastructure, enhance R&D capacity, and boost the research competitiveness of eligible EPSCoR jurisdictions, including states, territories, and commonwealths.

A jurisdiction's research ecosystem is the interconnected network of organizations, researchers, trainees, community stakeholders, and resources that contribute to the process of research and innovation that advances fundamental knowledge, generates use-inspired products, and ultimately cultivates beneficial impacts for a jurisdiction. E-CORE supports jurisdictions in building significant and sustainable research capacity and research infrastructure for targeted areas of focus, hereinafter referred to as "cores," that underlie a jurisdiction's research ecosystem.

Based on the evidence-based and self-identified needs of a jurisdiction, the types of cores supported by E-CORE may include (but are not limited to) development, enhancement, and/or ensuring the sustainability of: research administration; research facilities and infrastructure (including cyberinfrastructure); STEM education (K-12) pathways; higher education pathways; early career investigator pathways; broadening participation; workforce development; national and global partnerships; community engagement and outreach; technology transfer; economic development; and use-inspired research pathways. E-CORE projects must be designed to support the sustainability of the research infrastructure cores beyond the award period. Projects will also support the development and growth of new jurisdiction-wide connections, and the leveraging of existing jurisdiction-wide connections, to drive substantive and sustainable impacts.

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.

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

- 47.083 --- Office of Integrative Activities (OIA)

Award Information

Anticipated Type of Award: Cooperative Agreement

Estimated Number of Awards: 15

The number of awards granted annually is subject to the availability of funding. Multiple awards within a single jurisdiction will also be considered based on the availability of funds.

Projects may be funded for up to eight years, with an initial award for the first four years and the possibility of a renewal project award for four additional years based on project performance and the completion of project milestones. Each individual year's continued funding will be contingent on satisfactory progress based on the annual reporting and progress toward implementing the strategic plan.

Anticipated Funding Amount: $37,500,000

An annual budget of up to $37.5 million is available to support up to 15 new E-CORE awards. The number of awards will depend on the availability of funds and the quality of submitted proposals.

Funding requests must be for a duration of four (4) years, with a maximum budget of $10 million total for the first four years and an optional renewal project award maximum budget of $8 million total for an additional four years. Within the maximum award budget, there is no restriction on the amount requested annually.

Note that in only rare and exceptional circumstances will no-cost extensions be granted during the initial or renewal project award period.

Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of higher education (PhD- and non-PhD-granting) that are accredited and operate a campus within the United States, its territories, or possessions, may submit proposals on behalf of their faculty.
    - Distinct academic campuses within multi-campus systems (e.g., campuses that award their own degrees and have independent administrative structures, admissions policies, and alumni associations) qualify as separate submission-eligible institutions.
    - Campuses that plan to submit a proposal through the Sponsored Projects Office of other campuses or organizations should contact NSF EPSCoR to discuss eligibility as early as possible and at least six weeks before submitting such a proposal.
- Non-profit, non-degree-granting domestic U.S. organizations, acting on behalf of their employees, that include (but are not limited to) independent museums and science centers, observatories, research laboratories, professional societies, and similar organizations that are directly associated with the Nation's research or educational activities. These organizations must have an independent, permanent administrative organization (e.g., an office of sponsored research) located in the United States, its territories, or possessions, and have 501(c)(3) tax status.
- Jurisdictional/state governments, or agencies or commissions thereof, when coordinating efforts of multiple organizations within the jurisdiction.
- Tribal Governments with the governing body of any Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe under the Federally Recognized Indian Tribe List Act of 1994 (25 U.S.C. 479a, et seq.) or Indigenous communities that are not recognized by the Federally Recognized Indian Tribe List Act of 1994 (25 U.S.C. 479a, et seq.).

E-CORE proposals may only be submitted by organizations within jurisdictions meeting the EPSCoR eligibility criteria.

E-CORE proposals may not be submitted by organizations that serve as the lead organization on an active E-CORE or RII Track-1 award unless that award is in its final year or under a no-cost extension and will not be renewed. However, individuals employed by said organizations may serve as funded project participants or collaborators in roles other than PI or co-PI in an E-CORE proposal submitted by another organization. Such engagement must not be duplicative of currently funded activities, including active EPSCoR RII awards.

E-CORE submissions should be multi-organizational, with a lead organization and additional collaborating partner(s), which may include academic and non-academic organizations.

Collaborations must be indicative of building or developing cores within the jurisdiction and an interconnected jurisdiction-wide network that is able to link research efforts to individuals in a jurisdiction's research ecosystem.

NSF encourages the participation of the following types of organizations as the lead organization and/or collaborative partners in E-CORE submissions:

- Emerging Research Institutions as defined in 42 §USC 18901 as institutions of higher education with an established undergraduate or graduate program that have less than $50,000,000 in Federal research expenditures within the year of the most currently available data;
- Institutions of higher education that are described in the section "Broadening Participation in STEM" above.

Collaborations with other EPSCoR jurisdictions, non-EPSCoR jurisdictions, and international entities are allowed provided there is appropriate justification of how such collaborations will improve research

infrastructure within the proposing jurisdiction in ways that cannot be achieved through collaborations within the jurisdiction. However, since EPSCoR program funds may only be allocated for activities and personnel within an EPSCoR jurisdiction, participation of collaborators in non-EPSCoR jurisdictions must be unfunded collaborators.

Who May Serve as PI:

Principal Investigators must hold at least 50% appointments in eligible organizations within an EPSCoR jurisdiction.

Each collaborating organization must be represented by a PI, co-PI, or other senior/key personnel.

Limit on Number of Proposals per Organization: 1

An organization may serve as the lead on only one RII Track-1 award, E-CORE submission, or E-CORE award at a time, except when the active RII Track-1 or E-CORE award is in its final year or under a no-cost extension and will not be renewed.

There is no limit on the number of submissions or awards per jurisdiction. Projects may take the form of a single organization submission with subawards or a set of separately submitted collaborative proposals (any of which may contain subawards).

Limit on Number of Proposals per PI or co-PI: 1

An individual may serve as PI or co-PI on only one RII Track-1 award, E-CORE submission, or E-CORE award at any given time (unless an existing RII Track-1 or E-CORE award is in its final year, or in a no-cost extension, and has not been selected for renewal project award), but may serve as senior personnel, or in roles other than PI or co-PI, on any number of E-CORE submissions or awards.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Not required
- **Preliminary Proposal Submission:** Not required
- **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:**

Other budgetary limitations apply. Please see the full text of this solicitation for further information.

C. Due Dates

- **Full Proposal Deadline(s)** (due by 5 p.m. submitting organization's local time):

  July 15, 2025

  Third Tuesday in July, Annually Thereafter

Proposal Review Information Criteria

Merit Review Criteria:

National Science Board approved criteria. Additional merit review criteria apply. Please see the full text of this solicitation for further information.

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

The Established Program to Stimulate Competitive Research (EPSCoR) fulfills the mandate of the U.S. National Science Foundation (NSF) to promote scientific progress nationwide. NSF EPSCoR pursues a mission to enhance the research competitiveness of targeted jurisdictions (state, territory or commonwealth) by strengthening science, technology, engineering and mathematics (STEM) capacity and capability through a diverse portfolio of investments from talent development to local infrastructure. NSF envisions EPSCoR jurisdictions as recognized contributors to the national and global STEM research enterprise.

The goals of NSF EPSCoR are to:

- Catalyze the development of research capabilities and the creation of new knowledge that expands jurisdictions' contributions to scientific discovery, innovation, learning, and knowledge-based prosperity
- Establish sustainable STEM education, training, and professional development pathways that advance jurisdiction-identified research areas and workforce development
- Broaden direct participation of individuals and organizations in the project's science and engineering research and education initiatives
- Effect sustainable engagement of project participants and partners, the jurisdiction, the national research community, and the general public through data-sharing, communication, outreach, and dissemination
- Impact research, education, and economic development beyond the project at academic, government, and private sector levels.

Through NSF EPSCoR, NSF seeks to catalyze and enhance partnerships among organizations, government, industry, and non-profit sectors that will sustainably improve upon existing and new research infrastructure, research and development (R&D) capacity, and R&D competitiveness.

The EPSCoR Collaborations for Optimizing Research Ecosystems (E-CORE) Program was created in response to input from recent national studies and legislation, including the 2022 2M Study of EPSCoR,Envisioning the Future of NSF EPSCoR report, and the Chips and Science Act of 2022 (Public Law 117 – 167).Coupled with the EPSCoR Research Infrastructure

Improvement Program: EPSCoR Incubators for STEM Excellence (E-RISE), which focuses on the transformation of a jurisdiction's research ecosystem based on jurisdictional need, variation, and integration of core elements, E-CORE and E-RISE supplants goals of the NSF EPSCoR RII Track-1 Program, which was archived in FY2024.

E-CORE supports jurisdictions in building significant and sustainable research capacity and research infrastructure for targeted areas of focus, hereinafter referred to as "cores", that underlie a jurisdiction's research ecosystem.

A jurisdiction's research ecosystem is the interconnected network of organizations, researchers, trainees, community stakeholders, and resources that contribute to the process of research and innovation that advances fundamental knowledge, generates use-inspired products, and ultimately cultivates beneficial impacts for a jurisdiction.

A robust research ecosystem is an environment where research can thrive, leading to new discoveries, technological advancements, and solutions to complex problems. Although every jurisdiction is unique, typical components of the research ecosystem include (see Figure 1):

- *Organizations*: Degree-granting institutions, non-degree granting research institutes or organizations, government agencies, private organizations, including not-for profit and for-profit organizations that conduct or support research.
- *Researchers:* Scientists, scholars, trainees and other professionals who design and execute research projects.
- *Funding Sources:* Government grants, private sector investments, and philanthropic contributions that provide financial support for research activities.
- *Infrastructure:* Laboratories, field stations, research sites, facilities, equipment, databases, and technological tools that enable researchers to conduct experiments and analyze data.
- *Collaboration Networks:* Partnerships and collaborations between organizations, researchers, and industries that facilitate the exchange of knowledge and resources.
- *Policy and Regulation:* Guidelines and regulations that govern research practices, ethics, and funding.
- *Knowledge Transfer:* Mechanisms for sharing research findings with the broader community, including publications, conferences, patents, commercialization efforts, and research synthesis meetings with community stakeholders.

Based on the evidence-based and self-identified needs of the jurisdiction, capacity building supported by E-CORE projects may include (but is not limited to) development, enhancement, and/or sustainability of: jurisdiction-wide research administration; research facilities; higher education pathways; STEM education (K-12) pathways; broadening participation; workforce development; national and global partnerships; community engagement and outreach; economic development and use-inspired research; and/or early career research trainee pathways. E-CORE projects must be designed to support the sustainability of the cores beyond the award period. In E-CORE's support of cores in an EPSCoR-eligible jurisdiction, the program will also support the development and growth of new jurisdiction-wide networks, and the leveraging of existing jurisdictional networks, that can drive demonstrable and sustainable impact to advance the jurisdiction-wide research ecosystem.

E-CORE seeks to align EPSCoR programmatic goals with levels of innovation in research ecosystems within EPSCoR-eligible jurisdictions in order to develop a dynamic and sustainable ecosystem. A critical level of innovation in the EPSCoR STEM research ecosystem is the Jurisdiction Research Excellence and Competitiveness (JREC) level (2M report on EPSCoR, 2022), which provides a framework to capture and connect the range of academic, nonprofit, and private sector organizations that contribute to jurisdiction-wide competitiveness in STEM. Relationships among research organizations, state- or jurisdiction-level policies and incentives, R&D programs and strategies, political and constituency support, infrastructure quality and maintenance, and investment strategies contribute to this level of competitiveness. All other levels of competitiveness and the overall research ecosystem are embedded within JREC.

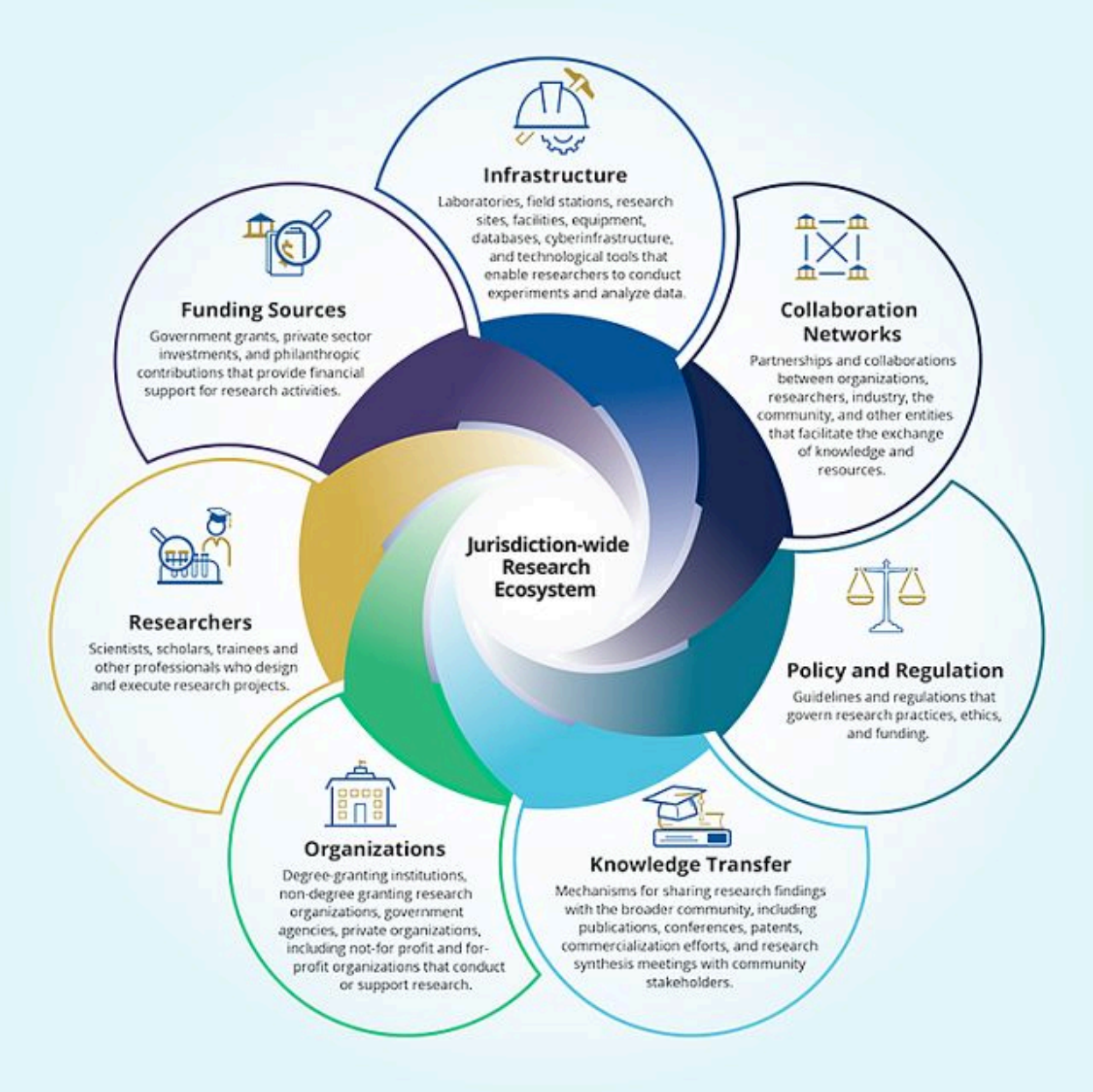

Figure 1. Critical Elements of a Competitive Research Ecosystem.E-CORE supports a centralized Administrative Core that connects and engages all elements of the jurisdiction's research ecosystem. E-CORE is designed to connect the multiple components of the research ecosystem through focused activities intended to build jurisdiction-identified research infrastructure cores.

II. Program Description

A. E-CORE Program Goals

A jurisdiction's research ecosystem is the interconnected network of organizations, researchers, trainees, community stakeholders, and resources that contribute to the process of research and innovation that advances fundamental knowledge, generates use-inspired products and ultimately cultivates beneficial impacts for a jurisdiction. E-CORE supports jurisdictions in building significant and sustainable research capacity and research infrastructure for targeted areas of focus, hereinafter referred to as "cores", that underlie a jurisdiction's research ecosystem.

E-CORE projects must be designed to support the sustainability of the research infrastructure cores beyond the award period with non-EPSCoR RII funds. Projects will also support the development and growth of new jurisdictional networks, and the leveraging of existing jurisdictional networks, to drive demonstrable and sustainable impacts.

E-CORE projects are expected to improve a jurisdiction's R&D competitiveness by creating a coordinated jurisdiction-wide, interconnected network to connect core components of a jurisdiction's research ecosystem, and by providing opportunities for researchers and stakeholders to meaningfully connect and engage within it.

E-CORE aims to support EPSCoR-eligible jurisdictions to:

1. Leverage the understanding of a jurisdiction's needs, challenges, and opportunities to build significant and sustainable research infrastructure within a jurisdiction's science and technology research ecosystem;
2. Build capacity to scale jurisdiction-wide investigator expertise that will support sustained, reciprocal research and education partnerships and increase the likelihood of follow-on funding from non-EPSCoR RII sources; and
3. Develop sustainable pathways to broaden the participation of individuals and organizations that engage with a jurisdiction's research ecosystem.

E-CORE proposals should establish a time-bound vision for how project activities will substantively and sustainably enhance the R&D competitiveness of a jurisdiction's organizations, with the intentional involvement of emerging research institutions, minority-serving institutions, and other important contributors to a jurisdiction's research ecosystem. Through its cores, E-CORE projects should create substantive efforts and research infrastructure that will be sustained beyond the award period. To ensure sustainability, proposers should describe opportunities to re-evaluate and evolve the vision and core activities as the needs of the jurisdiction's research ecosystem evolve.

E-CORE proposals must also detail the alignment of the project with all five EPSCoR program goals. A project's cores should be identified and justified by leveraging an assessment of a jurisdiction's needs, challenges, and opportunities, the strengths of the proposing team, and the jurisdiction's priorities. Those priorities are typically identified in the jurisdiction's Science & Technology Plan (S&T Plan), but may also be drawn from other plans, reports, or publications prepared by appropriate authorities or bodies, especially in cases where a jurisdiction's S&T plan has not yet been revised to include research infrastructure priorities. The proposal's justification for core selection should include a data-driven or evidence-based vision and assessment of the identified needs and priorities of a jurisdiction.

B. The Administrative Core

Each E-CORE project must have an Administrative Core. A critical role of this core is to establish a foundational framework that connects groups of investigators and partners across the jurisdiction. Activities within this core will foster reciprocal collaboration and be intentionally designed to make the jurisdiction's research ecosystem accessible to all researchers. Administrative core activities must create connections between individuals, teams, organizations, and sectors within a jurisdiction's research ecosystem. The Administrative Core may utilize seed funding and workshops to connect and provide support for individuals and teams to engage within the greater jurisdiction-wide research ecosystem. The Administrative Core should also serve as the center of project management for the E-CORE project and should include an individual serving in a role such as Project Administrator or Project Manager.

Since E-CORE projects are expected to form jurisdiction-wide networks that substantively and sustainably contribute to a jurisdiction's research ecosystem, the Administrative Core is expected to coordinate efforts with other networks having a similar goal of jurisdiction-wide research infrastructure capacity building. Moreover, to ensure an effectively interconnected and sustainable jurisdiction-wide research ecosystem, Administrative Core efforts and activities should connect to existing networks created by RII Track-1, E-CORE, E-RISE, or any other NSF-funded (including those beyond the NSF EPSCoR RII program) jurisdiction-wide research *capacity building* awards. Proposers should provide a plan that describes the project's prior coordination efforts in the jurisdiction, how project activities will be coordinated across the jurisdiction, and/or how connections will be made with the other projects mentioned above that seek to create jurisdiction-wide networks that build research capacity.

In jurisdictions with a pre-existing and active EPSCoR Jurisdiction/State Office, the Administrative Core is expected to coordinate with this office to avoid a duplication of efforts, complement existing or ongoing work of the office, and transition Jurisdiction/State Office functions if desirable. In cases where the operations of a Jurisdiction/State Office have been supported by an expiring RII Track-1 award, the Administrative Core(s) of one or more E-CORE awards may be used to support the Jurisdiction/State Office as part of the Administrative Core(s) activities. E-CORE proposals should put forth a clear plan of how the Administrative Core will coordinate with other present and future E-CORE and other types of EPSCoR and non-EPSCoR capacity building projects, with an active Jurisdiction/State Office (if present), and describe how they will coordinate with other federally funded projects that build capacity for substantive jurisdiction-wide research infrastructure.

The Administrative Core, in collaboration with other E-CORE Administrative Cores and any Jurisdiction/State Office, is expected to work closely with the Jurisdictional Steering Committee (see subsection F) to continuously assess and address evolving strengths and needs within the jurisdiction's research ecosystem. These assessments should be data-driven and evidence-based and help inform the Jurisdictional Steering Committee's efforts to periodically update an evolving S&T plan for the jurisdiction.

C. Additional Cores

Based on demonstrated research capacity needs in the jurisdiction, E-CORE projects may include one or more additional core(s). The proposal should provide a justifiable and evidence-based rationale that includes statistical data, demographic data describing populations, or other types of data, for the selection of the additional core(s). The following list contains illustrative examples of potential cores, which can be tailored to the needs of each jurisdiction. In all cases, proposers are encouraged to include strategies that broaden the participation of individuals or groups in STEM.

- *Research Support Core* – This core may provide management in administrative, fiscal, and scientific aspects of the proposed network. This might especially focus on administrative elements that are not available to the entire network of partners, and if available, will allow them to fully engage and participate in the jurisdiction-wide scientific enterprise, including enhancing research support infrastructure.
- *Research Facilities and Infrastructure Core* – This core may leverage or facilitate the coordination and establishment of jurisdiction-wide core facilities. In addition, this core may facilitate the research of any center-like activities, EPSCoR or non-EPSCoR funded projects, and/or research activities related to the S&T plan for the jurisdiction. Such a core might also support the acquisition of equipment, cyberinfrastructure, and/or the Alteration and Renovation (A&R) costs to improve existing research infrastructure and laboratories. Efforts to establish a new platform or data repository must include a plan for user recruitment, user onboarding, and for the maintenance of this digital product.
- *Higher Education Pathways Core* – This core may clearly connect trainees and curricula to scientific fields of interest within the jurisdiction. Efforts may be in support of any center-like activities, EPSCoR-funded projects, and/or activities related to the S&T plan for the jurisdiction. This core might include a targeted focus on undergraduate, graduate trainee, postdoctoral research, or faculty (or equivalent) recruitment and retention, or research mentor training at any stage of the scientific career continuum.
- *STEM Education (K-12) Core* – This core may aid in the development of sustainable pathways to providing K-12 students in the jurisdiction with access to exemplary STEM education.
- *Workforce Development Core* – This core may provide opportunities that allow the jurisdiction to build pathways to STEM careers that are relevant to industries and STEM sectors in the jurisdiction.
- *Broadening Participation Core* – This core may create opportunities for jurisdiction-wide initiatives aimed at broadening participation within the STEM fields. Activities may seek to create or enhance untapped talent pools and provide intentional activities that recruit, retain, and enhance the development of STEM identity while engaging within a jurisdiction's research ecosystem. Such a core might provide a substantive and sustainable effort to recognize and empower individuals from untapped talent pools and cultivate scientific talent in the jurisdiction. Such a core might provide environments and cultures where all individuals thrive.

- *National and Global Partnerships Core* – This core may provide opportunities for developing research infrastructure in the jurisdiction through national and global partnership-building. Collaborations with organizations in non-EPSCoR jurisdictions and/or in other countries may be included with appropriate justification, but no EPSCoR funds may be directed to such organizations.
- *Community Engagement and Outreach Core* – This core may create and provide frameworks to co-produce research priorities with community members in the jurisdiction. Such a core might also include efforts to promote public literacy and the engagement of citizens in the scientific enterprise.
- *Economic Development and Use-inspired Core* – This core may create opportunities to connect research and research products directly to societal outcomes. This could be focused on the development of new startup companies or infrastructure for startup companies, entrepreneurial education, infrastructure for technology transfer, patents, or contributions to industry, or alternatively, developing policies that connect the outcomes of research to the economic development of the jurisdiction.
- *Early Career Research Trainee Pathway Core* – This core may create opportunities for early-career individuals—such as post-doctoral researchers, research assistants/associates, lecturers, or tenure-track faculty—to be recruited, retained, and supported in their development for long-term success in STEM careers. It is expected that efforts in such a core would empower individuals to serve in leadership roles within the scientific enterprise through training, mentoring, and/or leadership opportunities.
- *Other Core(s)* – Depending on a jurisdiction's specific needs, additional evidence-based challenges, or unique opportunities for building substantive and sustainable research infrastructure and capacity that enhances the R&D competitiveness of a jurisdiction's research ecosystem, one or more additional core(s) not identified above may be identified.

E-CORE projects should focus on depth rather than breadth in their selection of cores. An E-CORE project should include a limited number of cores relevant to the proposed scope of work and consistent with the budget request. Projects are expected not to include all cores identified above, but rather to select and identify a limited subset of cores that align with key areas of need and create an appropriate number of cores to build substantial depth of research infrastructure in the identified areas. The selection of a core must be based on evidence-based analysis that illustrates the need for that core within the jurisdiction.

D. Design Elements of E-CORE Collaborative Infrastructure

To build and support research networks to connect core activities within the jurisdiction, E-CORE projects must operationalize the following five design elements of collaborative infrastructure in ways that catalyze and accelerate systemic change and lead to substantially broadened participation in STEM research capacity:

1. Jurisdictional Development: Proposers must clearly articulate their contribution to the jurisdiction's research ecosystem, identify what aspect of the ecosystem is being addressed, and demonstrate how the project will create jurisdiction-wide impact.
2. Research Ecosystem-Wide Connections: E-CORE project teams will engage in jurisdiction-wide network-building activities to accomplish project goals. Partnerships with other federal, state, or non-profit programs are encouraged. Plans to connect to other research ecosystem-level efforts are clearly described.
3. Broadening Participation and Fostering a Culture of Reciprocal Collaboration: Efforts to promote a culture of reciprocal collaboration are essential for retaining the STEM workforce within research ecosystems and for scaling the innovation, creativity, and productivity of research ecosystems. Building a culture of reciprocal collaboration begins with strong leadership commitment, as leaders must actively support and model behaviors that promote mutually beneficial collaboration throughout the project. There should be a plan to gather feedback from participants that allows the project leadership to assess its progress and adjust as needed to continuously improve broadening participation efforts. E-CORE projects should build collaborative infrastructure (policies, processes, and procedures) throughout the project that involves individuals, communities, organization types, or Tribal Nations that are underserved in STEM. As such, project teams should consist of a broad swath of individuals, projects, or activities across partnering organizations from these groups. A culture of reciprocal

collaboration must also broaden the participation of individuals from populations that have not yet been fully engaged in STEM. The vision for creating a culture of reciprocal collaboration should go well beyond numbers and include descriptions of the integration and roles of all partners in the project.

4. Goals, Metrics, and Evaluation: Proposals must include a logic model or theory of change that includes measurable goals and objectives aligned with jurisdictional needs, illustrating how the project's research capacity and infrastructure will enhance the jurisdiction's research ecosystem. A figure of the logic model that describes the alignment of well-defined, relevant goals and objectives with project outcomes is encouraged.
5. Intentional Communication: Projects must establish internal and external communication plans detailing strategies for recruiting and retaining participants. These plans should also outline efforts to promote project visibility and encourage active engagement from key partners.

E. Planning Proposals

Planning proposals to support future E-CORE submissions may be submitted at any time in accordance with the guidance in Chapter II.F.1 of the *NSF Proposal and Award Policies and Procedures Guide (PAPPG)* and the Dear Colleague Letter NSF 24-097, but such proposals are not required prior to the submission of an E-CORE proposal.

F. Continual Improvement and Assessment

The success of E-CORE projects and the wider improvement of the jurisdiction-wide research ecosystem is rooted in the implementation of a continual process improvement cycle. To facilitate the continued assessment of the project, each E-CORE project must include an evaluator to assess progress toward all elements of the project. Additionally, proposals must include a preliminary timetable or Gantt chart for achieving those goals. It is strongly recommended that proposals include a logic model with a clearly articulated theory of change that identifies appropriate indicators of progress toward the desired outcomes. If awarded, the project will create a comprehensive Strategic Plan that will be used to identify when project milestones and goals will be met and the resulting outcomes. The Strategic Plan will need to be approved by NSF. Outputs and outcomes will be assessed yearly by the team and, if needed, corrections may be made in consultation with NSF and subsequently incorporated into a new version of the Strategic Plan. Activities and products described by the strategic plan will be reported through the EPSCoR Data Outcomes Collection System (EDOCS). Even though the award will be initially made for four years, with an optional four-year renewal project award, each year's funding increment is dependent on progress towards the goals of the project. The mitigation of challenges as part of the continuous improvement processes will also be reported through annual reporting to NSF.

G. Jurisdictional Steering Committee and Science & Technology (S&T) Plan

Each jurisdiction is required to have a single, active, Jurisdictional Steering Committee (although a different name may be used by the jurisdiction). The Jurisdictional Steering Committee is expected to help identify areas of scientific strength and opportunity within the jurisdiction and research infrastructure improvement strategies that will advance the development of sustainable research capabilities within the jurisdiction's research ecosystem. The Jurisdictional Steering Committee is expected to work closely with, and be comprised of, leaders from organizations (including academic institutions) across the jurisdiction, local government, and the private sector. This committee should: (i) aid in the assessment of the entire research ecosystem present in a jurisdiction and continuous improvement planning for a jurisdiction's research ecosystem; (ii) identify areas that may be beyond the sphere of influence current EPSCoR investments within the jurisdiction; and (iii) co-produce, in collaboration with relevant entities in the jurisdiction (e.g. communities, state governments, industry, funded E-CORE projects and leadership in other jurisdiction-wide federal research investments) the jurisdiction's Science and Technology Plan (S&T Plan). The S&T Plan should establish jurisdiction-wide research and research infrastructure priorities, including specific goals and objectives, and provide the framework that is expected to guide the jurisdiction's use of R&D infrastructure improvement resources. The S&T Plan should also be informed by the jurisdiction's economic development priorities and should describe pathways for bringing research outputs and outcomes to the marketplace where appropriate. The Jurisdictional Steering Committee's work should clearly articulate and address a jurisdiction's needs associated with workforce development, broadening participation in STEM, preparing a K-16 STEM pipeline, and enhancing the economic impact of the jurisdiction's R&D enterprise.

The structure, composition, and appointing authority for the Jurisdictional Steering Committee should be determined by leadership within the jurisdiction and should be based on the specific needs and circumstances of the jurisdiction. As such, the Jurisdictional Steering Committee membership should be reflective of the needs and scope of the jurisdiction and must include the expertise to provide a balanced perspective to accomplish, at minimum, the three primary charges described above. To fulfill these charges in an equitable and consistent manner, each jurisdiction should have a single Jurisdictional Steering Committee. An existing Jurisdictional Steering Committee within a jurisdiction may keep its structure or restructure based on the evolving needs of the jurisdiction. **NSF's expectation is that the membership of the Jurisdictional Steering Committee, along with the current version of the S&T Plan, be publicly available**.

Similar to Administrative Core leadership, it is strongly recommended that the Jurisdictional Steering Committee be cognizant of all federal and state investments in the jurisdiction to facilitate linkages and provide pathways of communication among federally funded efforts including E-CORE projects and to allow for jurisdiction-wide participation of a variety of entities. To support successful E-CORE submissions, the Jurisdictional Steering Committee should routinely conduct an evidence-based analysis of the jurisdiction's R&D strengths and opportunities that exist to further develop R&D capacity. The analysis should also describe the needs and challenges that must be overcome to take advantage of said opportunities, and these elements should be incorporated into the jurisdiction's S&T Plan. The Jurisdictional Steering Committee should also evaluate the maturity of existing R&D efforts in the jurisdiction and describe the potential of new research directions that align with jurisdictional needs. Where needed, the Jurisdictional Steering Committee is expected to ensure that jurisdiction-wide networks, other NSF and federal investments, and the jurisdiction are working in concert to maximize these investments and ultimately lead to increasing research competitiveness. To allow for E-CORE projects to appropriately align with the priorities and needs of the jurisdiction, the jurisdiction's S&T Plan should be routinely revisited to document and record the changing ecosystem of the jurisdiction.

The success and ultimate sustainability of an E-CORE project are rooted in the project's responsiveness to the underlying research capacity needs and priorities of its jurisdiction. As such, the Jurisdictional Steering Committee serves as a fundamental and inherent collaborator and partner in an E-CORE project. E-CORE proposals must include a plan for how the Administrative Core (and other cores, if appropriate) will interface with the Jurisdictional Steering Committee.

H. Renewal

Funded E-CORE projects will be allowed to submit a proposal for a single four-year renewal project award by initiating the process in the 3rd year of the initial award. Renewal project proposals are accepted on any date (no deadline) but must be submitted no later than the end of the fourth quarter of the 3rd year of the original award. Per the PAPPG, this submission window must occur at least six months before additional funding is required or consistent with an established deadline, target date, or submission window.

The process for a renewal project award requires submission of a project annual report and a renewal project proposal, as well as a renewal project site visit, as detailed in the guidance provided on the EPSCoR Annual Reporting Website (https://new.nsf.gov/funding/initiatives/epscor/annual-reporting). See PDF documents at the bottom of the page entitled "*Guidelines For Preparing E-CORE And E-RISE Annual And Renewal Project Reports*" and "*E-CORE and E-RISE Renewal Site Visit Guidelines*" for details. Renewal project awards will be based on the quality of the submitted proposal, progress towards stated project goals as outlined in the NSF-approved Strategic Plan, and the development of clear pathways to sustainability of the research infrastructure created beyond the initial award project period, as assessed through merit review and the outcomes of the Renewal Project Site Visit. At the renewal stage, additional cores may be added or removed with the appropriate reassessment of shifting jurisdictional needs.

While committed cost sharing is not allowed for the initial four-year E-CORE period, cost share is required for the subsequent four-year renewal project proposal, as detailed in "Section 5.1 Renewal Cost-Share Requirements" section of the "*Guidelines For Preparing E-CORE And E-RISE Annual And Renewal Project Reports*" document. Cost sharing for a renewal project proposal is required at the level of 20% of the total amount requested from NSF in the renewal project proposal's budget. For collaborative projects with multiple proposals, the cost share amount can either be provided solely by the lead institution or the 20% can be distributed across all budgets in the collaboration.

III. Award Information

Up to $37,500,000 annually, to support up to 15 newly funded E-CORE awards. Number of awards is approximate and subject to the availability of funds and quality of the proposals submitted.

No-cost extensions may be granted only under rare and exceptional circumstances.

NSF EPSCoR support of a proposed RII activity should not duplicate other available federal, jurisdictional, or organizational resources and should add significant and sustainable value to a jurisdiction's research ecosystem.

IV. Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of higher education (PhD- and non-PhD-granting) that are accredited and operate a campus within the United States, its territories, or possessions, may submit proposals on behalf of their faculty.
    - Distinct academic campuses within multi-campus systems (e.g., campuses that award their own degrees and have independent administrative structures, admissions policies, and alumni associations) qualify as separate submission-eligible institutions.
    - Campuses that plan to submit a proposal through the Sponsored Projects Office of other campuses or organizations should contact NSF EPSCoR to discuss eligibility as early as possible and at least six weeks before submitting such a proposal.
- Non-profit, non-degree-granting domestic U.S. organizations, acting on behalf of their employees, that include (but are not limited to) independent museums and science centers, observatories, research laboratories, professional societies, and similar organizations that are directly associated with the Nation's research or educational activities. These organizations must have an independent, permanent administrative organization (e.g., an office of sponsored research) located in the United States, its territories, or possessions, and have 501(c)(3) tax status.
- Jurisdictional/state governments, or agencies or commissions thereof, when coordinating efforts of multiple organizations within the jurisdiction.
- Tribal Governments with the governing body of any Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe under the Federally Recognized Indian Tribe List Act of 1994 (25 U.S.C. 479a, et seq.) or Indigenous communities that are not recognized by the Federally Recognized Indian Tribe List Act of 1994 (25 U.S.C. 479a, et seq.).

E-CORE proposals may only be submitted by organizations within jurisdictions meeting the EPSCoR eligibility criteria.

E-CORE proposals may not be submitted by organizations that serve as the lead organization on an active E-CORE or RII Track-1 award unless that award is in its final year or under a no-cost extension and will not be renewed. However, individuals employed by said organizations may serve as funded project participants or collaborators in roles other than PI or co-PI in an E-CORE proposal submitted by another organization. Such engagement must not be duplicative of currently funded activities, including active EPSCoR RII awards.

E-CORE submissions should be multi-organizational, with a lead organization and additional collaborating partner(s), which may include academic and non-academic organizations.

Collaborations must be indicative of building or developing cores within the jurisdiction and an interconnected jurisdiction-wide network that is able to link research efforts to individuals in a jurisdiction's research ecosystem.

NSF encourages the participation of the following types of organizations as the lead organization and/or collaborative partners in E-CORE submissions:

- Emerging Research Institutions as defined in 42 §USC 18901 as institutions of higher education with an established undergraduate or graduate program that have less than $50,000,000 in Federal research expenditures within the year of the most currently available data;
- Institutions of higher education that are described in the section "Broadening Participation in STEM" above.

Collaborations with other EPSCoR jurisdictions, non-EPSCoR jurisdictions, and international entities are allowed provided there is appropriate justification of how such collaborations will improve research infrastructure within the proposing jurisdiction in ways that cannot be achieved through collaborations within the jurisdiction. However, since EPSCoR program funds may only be allocated for activities and personnel within an EPSCoR jurisdiction, participation of collaborators in non-EPSCoR jurisdictions must be unfunded collaborators.

Who May Serve as PI:

Principal Investigators must hold at least 50% appointments in eligible organizations within an EPSCoR jurisdiction.

Each collaborating organization must be represented by a PI, co-PI, or other senior/key personnel.

Limit on Number of Proposals per Organization: 1

An organization may serve as the lead on only one RII Track-1 award, E-CORE submission, or E-CORE award at a time, except when the active RII Track-1 or E-CORE award is in its final year or under a no-cost extension and will not be renewed.

There is no limit on the number of submissions or awards per jurisdiction. Projects may take the form of a single organization submission with subawards or a set of separately submitted collaborative proposals (any of which may contain subawards).

Limit on Number of Proposals per PI or co-PI: 1

An individual may serve as PI or co-PI on only one RII Track-1 award, E-CORE submission, or E-CORE award at any given time (unless an existing RII Track-1 or E-CORE award is in its final year, or in a no-cost extension, and has not been selected for renewal project award), but may serve as senior personnel, or in roles other than PI or co-PI, on any number of E-CORE submissions or awards.

Additional Eligibility Info:

For an organization to be eligible to submit a proposal for funding in E-CORE, its jurisdiction must demonstrate its commitment to developing its research foundation and improving the quality of STEM research conducted at its universities and colleges, by:

- Having an active Jurisdictional Steering Committee to support jurisdiction-wide STEM research; and
- Having a Jurisdictional Science and Technology (S&T) Plan that is issued by a Jurisdiction-wide committee and identifies a vision for, and assessment of, the science and technology needs and priorities of a jurisdiction. This document should be up to date, within the past five years.

V. Proposal Preparation And Submission Instructions

A. Proposal Preparation Instructions

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.

In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via Research.gov. PAPPG Chapter II.E.3 provides additional information on collaborative proposals.

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.

Proposal Set-Up: Select "Prepare New Full Proposal" in Research.gov. Search for and select this solicitation title in Step One of the Full Proposal wizard. In the proposal details section, select either "Single proposal (with or without subawards)" or "Separately submitted collaborative proposal". The project title must start with "E-CORE:" followed by a descriptive title that clearly identifies the jurisdiction.

1. Senior/Key Personnel. The primary employment of the lead PI must be with the submitting organization within the jurisdiction. Each collaborating organization must be represented by a PI, co-PI, or other senior/key personnel.

2. Project Summary. In accordance with the guidance in the NSF PAPPG, the Project Summary must include three separate sections labeled Overview, Intellectual Merit, and Broader Impacts. In the Project Summary, briefly describe: the vision and goals of the project; targeted research infrastructure core(s) for the project and a supporting rationale for their inclusion; a plan for strengthening the jurisdiction-wide research ecosystem and to support and connect to jurisdiction-wide research infrastructure activities. This plan should include the proposed cores and other efforts that support the landscape of research currently present in the jurisdiction. Proposers must include a clear statement of the objectives and methods, expected impacts of the proposed activities, and a sustainability plan for maintaining collaborations, networks, and activities beyond the initial four-year award period.

3. Project Description (20 pages maximum). This section should present the proposed activities in a clear, compelling way and describe how the activities will create advances within a jurisdiction's research ecosystem and ultimately generate substantive and sustainable jurisdiction-wide research infrastructure that supports the needs and opportunities within a jurisdiction. In addition to the requirements contained in the NSF PAPPG, including a separate section labeled Broader Impacts (which may also describe the anticipated societal impact to communities within the jurisdiction), the Project Description must clearly define and appropriately label the required elements outlined below.

I. State of the Jurisdiction and E-CORE Vision

A. Jurisdiction-wide status, needs, strengths, and challenges

Describe the state of the jurisdiction's academic R&D enterprise, including the strengths, barriers, and opportunities for the development of academic and non-academic organizations in support of overall jurisdiction-wide R&D objectives. Provide an evidence-based assessment of jurisdiction-wide research areas of strength already represented in the jurisdiction, as well as opportunities to grow those strengths or create new opportunities. In addition to strengths and opportunities, this section should discuss potential barriers in terms of broadening the participation of individuals, organizations, or sectors in a jurisdiction's research ecosystem. This description should be inclusive of all areas of science and engineering, as well as other components critical to building research capacity within the jurisdiction. This description should be in alignment with the jurisdiction's S&T plan.

B. E-CORE Goals and Vision

Describe the goals and vision of the E-CORE project, including a detailed description (and an evidence-based argument for the selection) of the targeted cores to advance the R&D competitiveness of the jurisdiction's research ecosystem. Include a description of how the project will serve as a connector of (or create an interconnected network for) research and education activities across the jurisdiction. This section of the proposal should provide a concise description of sustainable network development in sufficient detail to enable the intellectual merit and broader impacts to be assessed. Include a specific discussion of the project's vision of how the project effort will positively impact and build capacity for the jurisdiction's research ecosystem. Finally, discuss how the E-CORE project aligns with the five NSF EPSCoR programmatic goals.

C. Sustainability

Outline the overall strategy for sustaining key project outcomes beyond the award period with particular emphasis on non-EPSCoR sources of funding. Include a rationale, timeline, specific activities, and milestones that will ensure long-term sustainability. As part of the timeline, indicate the desired trajectory toward reaching milestones that may be completed within the project duration. Include strategies for maintaining activities and their outcomes into the future. Emphasize the project's strategies for identifying priority areas, innovative approaches to securing necessary financial support, and creativity in leveraging other NSF, federal, state, and private resources.

II. Execution Plan, Evaluation, and Assessment

A. Execution Plan

Proposals should include a visual representation (e.g., a figure or Gantt chart) of how the project team will integrate project activities to achieve the vision for advancing the jurisdiction's research ecosystem. This figure should clearly describe when project teams will execute the key goals of a project and the milestones that need to be achieved during the four-year project period. This figure should describe key goals that are Specific, Measurable, Achievable, Relevant, and Time-Bound (SMART), as well as milestones.

Execution plans should outline the key goals for each research infrastructure core, their interrelationships, and the role of partner organizations in achieving these goals. Timeline figures or charts should articulate the logic behind how activities and key goals will be connected across jurisdictional partners.

B. Evaluation and Assessment Plan

An independent expert evaluator, uninvolved in project development or strategic plan meeting facilitation, must conduct annual evaluations and assessments. In addition, quantitative collection of project outcomes is required as part of the EPSCoR Data Outcomes Collection System (EDOCS) inputs and should be used in concert with any additional quantitative or qualitative data collected by the required independent evaluator.

The evaluation and assessment plan must be integral to the project design, aligned with the execution plan, and serve as a tool for identifying key outcomes, impacts, goals, and objectives. The evaluation and assessment plan should be a tool for providing effective feedback to the project's management team by the independent evaluator. Evaluation should

include formative and summative assessments. The plan must include additional metrics aligned with EPSCoR's programmatic goals.

The evaluation and assessment plan should also describe how the project will work with the Jurisdictional Steering Committee to continually assess and co-develop the jurisdiction-wide research ecosystem. This work should guide the jurisdiction and provide a mechanism to continually revisit the S&T plan as the jurisdiction's research ecosystem evolves throughout the duration of the award.

III. Leadership, Organization, and Management

A. Leadership Team

To properly support the identified cores in building research capacity within the jurisdiction, the proposal should include a clear description of the composition and expertise of the leadership team. The E-CORE Leadership Team must include individuals with: (a) demonstrated success in building or managing large teams and connecting individuals to networks; (b) leadership experience in STEM capacity-building activities; (c) expertise in the relevant core components; and (d) a track record of broadening participation efforts and fostering a culture of reciprocal collaboration within team-based projects.

B. Management Plan

Proposals must include a management plan that describes the administration of the E-CORE project, including the functions of the leadership team, key personnel, and the role of any advisory committees, executive committee(s), or their equivalent. While proposers may define the management structure, it should facilitate and integrate the program's mission to build networks that support the jurisdiction's research ecosystem and strengthen capacity in selected core components. In addition, the proposed management plan should address the roles, authorities, and accountability for the leadership team that will mitigate the potential for bottlenecks in decision making.

Specifically, proposals must delineate:

- Overall management and reporting structure of the E-CORE.
- Identification of personnel or groups, including leadership team members, responsible for each component of the project and the relevant experience and expertise of these individuals.

C. Broadening Participation and Fostering a Culture of Reciprocal Collaboration

E-CORE is committed to broadening participation in STEM because it is essential for innovation and deep collaboration across large teams. Proposers are asked to:

- Describe the vision and plans for fostering a culture of reciprocal collaboration that ensures the participation of all individuals, communities, Tribal Nations, and organization types in the E-CORE project.
- Describe plans to foster engagement of all E-CORE participants, including those from a wide range of scientific backgrounds and training, and those from groups that are historically underserved in a jurisdiction's research ecosystem and in STEM.
- Describe plans for recruiting, mentoring, and retaining (where applicable) K-12 students, undergraduates, graduate students, postdoctoral researchers, faculty, and members of the leadership team from groups historically underserved in STEM.
- Describe activities that will take place to ensure that there is a culture of reciprocal collaboration that is reflected within the project's processes, policies, and procedures.
- Describe intentional, evidence-based efforts to ensure the integration of participants throughout the entire E-CORE project.
- Include specific data points and metrics to assess the E-CORE's broadening participation goals.
- Include feedback mechanisms to obtain independent assessment and continuous improvement.

IV. Results from Relevant Prior Support

Describe results from relevant prior NSF support and other prior federal or other investments of the PIs and co-PIs in the last five years. This section should include a description of the activities and impacts of relevant previous NSF awards, including major accomplishments in both intellectual merit and broader impacts. If applicable, describe results that are relevant to the selected core components of the E-CORE and/or accomplishments that demonstrate the project team's capabilities to execute the proposed work.

4. Budget and Budget Justification. A four-year cumulative budget will be automatically generated by Research.gov or Grants.gov. Separate budget and budget justification pages must also be provided for each organization receiving a subaward. All faculty-level and equivalent personnel expected to receive greater than two months of salary support from NSF annually must be identified, and justification describing those participants' roles must be provided. Support for all members of the project's leadership team must be included in the budget.

Budgets should account for travel and contracting expenses required for participation in NSF EPSCoR award monitoring, oversight activities, and national or jurisdictional EPSCoR events. In particular:

- The independent evaluator must be retained as a consultant to the project.
- Newly awarded E-CORE projects are required to hold a strategic planning meeting within 90 days of the project award date. Funds should be allocated to host this meeting, with the entire leadership team in attendance.
- An independent facilitator to manage post-award strategic planning and continuous improvement activities may be provided as a consultant on the project.
- E-CORE projects seeking a renewal project award will be required to host a Renewal Site Visit in Project Year 3. Funds should be allocated to ensure an appropriate team of project participants can attend the Renewal Site Visit, and to provide meeting space for the Renewal Site Visit.
- The travel budget should include funds for an appropriate team of project participants to attend annual EPSCoR PI meetings and the biennial National EPSCoR Conference.
- Funds must be included to host or facilitate jurisdiction-wide meetings in the home jurisdiction, such as EPSCoR all-hands workshops and/or science symposia that include support for student (undergraduate and graduate as appropriate) participants of the E-CORE project.
- While not required, funds may be allocated to support the Jurisdictional Steering Committee in terms of aiding with the continual assessment of jurisdiction-wide research needs and the continual development of the S&T plan as the jurisdiction develops its research ecosystem.
- Subawards to other organizations within the jurisdiction, including lead organizations for existing Track-1, E-CORE or E-RISE awards, may be included to facilitate communication and collaboration. However, justification must be provided to ensure that these subawards will not duplicate existing EPSCoR-funded efforts.

See Section V.B. below for additional information and guidance.

5. Facilities, Equipment, and Other Resources.

Provide a description of relevant available facilities, equipment, and other resources relevant to the project for each organization in the collaboration.

6. Senior/Key Personnel Documents

Biographical Sketches. In accordance with the guidance contained in the NSF PAPPG, a separate biographical sketch must be provided for each individual designated as senior/key personnel on the project. It is permitted to include biographical sketches for any named collaborator ("Other Personnel") whose expertise is crucial to the success of the project, including the independent evaluator(s). If doing so, these biographical sketches must be uploaded in the Other Personnel Biographical Information section in Research.gov and they must conform to NSF guidelines for biographical sketches. Biographical sketches for members of External Advisory Committees or Boards should not be included.

7. Supplementary Documentation

In addition to the requirements contained in the PAPPG, the following items must be provided as supplementary documents:

7.1. Lists of Participants and Participating Organizations.

a. List of Participants. Provide an alphabetical (by last name) list of all participating senior investigators (faculty-level and equivalent), anyone named in the proposal who will receive financial support through the project (including subcontractors), and other key personnel (including advisory board members, independent evaluators, and collaborators). This list must identify the roles of participants as follows:

- PI: the Principal Investigator (PI) of the project as indicated on the Cover Sheet;
- Co-PI: a co-Principal Investigator as indicated on the Cover Sheet;
- Funded: any funded participant whose name appears in the proposal including Budget lines A or B;
- Evaluator: any individual independent evaluator who is named in the proposal;
- Consultant: any named individual (other than the independent evaluator(s)), who will receive a subcontract or consultant fees under budget lines G.3 or G.6;
- Advisory: any individual named in the proposal as an advisor to the project including as a member of an external advisory board; and,
- Unfunded: any collaborator or participant named in the proposal with a specified role but who will not receive salary or other payment.

Give the full first and last names and organizational affiliations of all such individuals. List only those individuals who are named and have roles specified in the proposal.

b. List of Participating Organizations. Provide a list of all organizations (including, but not limited to, academic and research organizations, companies, government agencies, and non-profit organizations) that will participate in, contribute to, or directly benefit from the proposed project. This list must identify the roles of the participating organizations as follows:

- Primary award recipient(s): the submitting organization as indicated on the Cover Sheet if submitting as a "Submission of a collaborative proposal from one organization," or as indicated on the Cover Sheets of each submission if submitting as a "Submission of a collaborative proposal from multiple organizations";
- Subawardee: any organization funded through a sub-award on budget line G.5;
- Subcontractor: any organization that will contract with the project through budget line G.3 or G.6, including the independent evaluators if the contract will go to an organization; and,
- Unfunded: any organization named in the proposal that will provide facilities or support including access to laboratory equipment or internships, but which will not receive funding or other payment.

Give the full name and place of business (city, state) of all such organizations. List only those organizations that are named and have roles specified in the proposal.

Examples of the lists of participants and participating organizations:

- Person A from organization X will provide data and assist in analyses but will not be funded by the project. Person A is named in the proposal and the role is described – list person A as a participant (collaborator); do not list X as a participating organization.
- Organization Y, which will not receive any funds from the project, submits a letter, via person B, committing specific resources to the project (such as internships or use of lab space) – list Y as a participating organization (unfunded); if person B has a role in providing this support, specified either in the proposal or the letter, then list person B as a participant (unfunded), otherwise do not.

- Person C, affiliated with organization Z, is the independent evaluator for the project and is named in the proposal. List person C as a participant (evaluator). If person C will be compensated via organization Z, then also list Z as a participating organization (subcontractor), otherwise do not.

7.2. Letters of Collaboration.

Letters of support are not allowed, as collaboration roles and involvement should be detailed in the Project Description. However, up to ten letters of collaboration (two pages or fewer) from partners or jurisdictional officials may be included to confirm commitments of resources beyond the core project investigators.

Please see the NSF PAPPG for guidance on Seeking and Obtaining Tribal Nation Approval for Proposals that May Impact Tribal Resources or Interests.

7.3. Science and Technology Plan.

Submit a copy of the jurisdiction's S&T Plan, or equivalent document, in the Other Supplementary Documents section. The plan must have been officially approved within the past five years by the Jurisdictional Steering Committee or a governing authority acting on behalf of the jurisdiction. Evidence of official acceptance or approval by the designated body or official, including the effective date and signature(s) of the approver(s), must be clearly indicated, either in the S&T Plan itself or via an official document (or letter) uploaded separately as a Supplementary Document. In addition, the effective date of the S&T plan must be clearly indicated on the cover page of the plan. Note that no named approver of the jurisdiction's S&T Plan may serve as a named participant on the project.

7.4. Notification to Jurisdictional Steering Committee of Planned Submission

Proposers should include in Supplementary Documentation a letter that the JSC has been notified about the upcoming submission of the proposal. No approval or response from the JSC is required.

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

Other Budgetary Limitations:

- Funding requests must be for a duration of four (4) years, with a maximum budget of up to $10 million total. There is no restriction on the amount requested annually.
- Outside of consultants, EPSCoR funding may not be used to support participants from non-EPSCoR jurisdictions.
- Subawards to organizations in non-EPSCoR jurisdictions are not permitted since EPSCoR funds may not be allocated to organizations in non-EPSCoR jurisdictions.
- Financial compensation for the independent evaluator(s) and a strategic planning facilitator must be included in the budget of the submitting organization under NSF budget line G.3 (Consultant Services).
- Only the budget of the submitting organization may include subawards (i.e., no subawards may appear in the budgets of subawardee organizations).
- If the proposal is being submitted as a "Submission of a collaborative proposal from one organization," budgets for participating organizations must be included as subawards to the budget of the submitting organization. Each subaward must include a separate budget justification of no more than five pages (see PAPPG Chapter II.D.2.f).
- If the proposal is being submitted as a "Submission of a collaborative proposal from multiple organizations," follow the instructions in PAPPG Chapter II.E.3 regarding budget submissions.
- Proposal budgets must comply with the guidance in 2 CFR 200 and the current NSF Proposal and Award Policies and Procedures Guide (PAPPG). Proposing entities are cautioned to ensure that all costs proposed are allowable (allocable, reasonable, and necessary), especially those costs associated with participants (Line F on the Proposal

Budget). Costs typically considered to be for entertainment, incentive, or promotional purposes should be sufficiently detailed in the budget justification to support the programmatic relevance and need. In general, costs for entertainment, amusement, and advertising/promotional purposes are unallowable and may not be requested. However, among EPSCoR's programmatic goals are emphases on establishing STEM development pathways and broadening participation in STEM, which can include "Bridge" programs designed to prepare high school students for the transition to college. This may include entertainment, amusement, and/or promotional costs related to STEM enrichment activities covering a range of possible career paths or activities focusing on cohort-building and maintaining a healthy work-life balance. These categories of activities are consistent with the overall program goal of preparing students for the difficult high school to college transition. This may include residential programs for minor students whose supervisory requirements may require different choices than would be appropriate for adult students. When costs typically considered as entertainment, amusement, and promotion are necessary to accomplish the proposed objectives, they must be included in the budget and justified in the budget justification.

- Jurisdictions submitting proposal budgets with Subawards (Line G5 on the Proposal Budget) must be able to verify that the lead organization has established a system to monitor the subawards issued on Federally sponsored projects and that appropriate agreements are in place with subrecipients.

Cost Sharing Requirements

Committed cost sharing is not allowed for the new E-CORE awards; however, cost share is required for the E-CORE three-year renewal project awards, as detailed in "Section 5.1 Renewal Cost-Share Requirements" of the "*Guidelines for preparing E-CORE RII and E-RISE RII annual and renewal reports*" document on the EPSCoR Annual Reporting website.Cost sharing for a renewal project award is required at the level of at least, and no more than, 20% of the total amount requested in the renewal project budget. An explanation of the source, nature, amount, and availability of the required cost sharing must be provided in the budget justification of the Renewal Proposal (see PAPPG Chapter II.D.2.f.xii and Chapter VII.C) and reported annually using NSF online systems. All cost sharing must be allowable and allocable to the project as outlined in the NSF PAPPG.

C. Due Dates

- **Full Proposal Deadline(s)** (due by 5 p.m. submitting organization's local time):

  July 15, 2025

  Third Tuesday in July, 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: https://www.research.gov/research-portal/appmanager/base/desktop?_nfpb=true&_pageLabel=research_node_display&_nodePath=/researchGov/Service/Desktop/ProposalPreparationanc For Research.gov user support, call the Research.gov Help Desk at 1-800-381-1532 or e-mail rgov@nsf.gov. 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: https://www.grants.gov/applicants. 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: support@grants.gov. 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 Grants.gov Proposal Processing in Research.gov informational page provides submission guidance to applicants and links to helpful resources including the NSF Grants.gov Application Guide, Grants.gov Proposal Processing in Research.gov how-to guide, and Grants.gov Submitted Proposals Frequently Asked Questions. 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 e-mail 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: https://www.nsf.gov/bfa/dias/policy/merit_review/.

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.

Additional Solicitation Specific Review Criteria

In addition to the National Science Board approved merit review criteria of Intellectual Merit and Broader Impacts, reviewers for the E-CORE competition will also consider the following criteria:

- Connection and potential impact of E-CORE to address both jurisdictional needs and research capacity, as well as EPSCoR Mission and Goals

    Are all cores well justified to the needs of the jurisdiction? Is there the potential, based on evidence provided and/or referenced in the proposal, for each core to substantially benefit jurisdictional research capacity? Are the cores aligned to EPSCoR mission and goals? Are the efforts sustainable, with a clear pathway to sustainability? Will the proposed efforts have jurisdiction-wide impact? Is there a clear description of how the project will coordinate with current or future E-CORE projects and/or other jurisdiction-wide capacity building efforts?

- Support of broadening participation. Evidence that there is a culture of reciprocal collaboration and that there is mutually beneficial collaboration across different organization types and sectors (e.g., academia, industry, and government)

    How well does the proposal describe how the project and project leadership embodies broadening participation throughout all activities as part of its jurisdiction-wide vision? Are clear, measurable goals and metrics specified for broadening participation, including recruitment and retention? To what extent is there a broad participation of individuals and organizations integrated into project activities?

- Plan for project management, leadership, and partnerships

    Does the proposal provide a reasonable plan for forming a visionary and effective leadership team? Does the proposal describe a well-informed process by which all necessary disciplines, skills, perspectives, and capabilities will be brought together to form an interdependent and multidisciplinary leadership team that can work and communicate effectively? Are there partners from multiple organizations represented among the leadership team with a clear connection to the project? Do the execution plan and evaluation and assessment plan provide evidence that each project element will be well executed and will allow for clear and meaningful engagement with the Jurisdictional Steering Committee?

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by

Ad hoc Review and/or Panel 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 https://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

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 Build America, Buy America webpage.

Special Award Conditions:

E-CORE projects are expected to partner with the Jurisdictional Steering Committee to continually assess and identify evolving strengths within the research landscape of the jurisdiction. These assessments should be data-driven and evidence-based and help inform the Jurisdictional Steering Committee as they periodically update the evolving S&T plan for the jurisdiction.

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.

PIs 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 https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

Award recipients must include an estimate of remaining unobligated funds at the end of each report period within the "Changes/Problems" section, particularly if changes significantly impact expenditures. If that estimate is greater than 20% of the current year award amount, the PI also must provide a plan and timeline for expenditure of those funds in the annual and final annual project report.

E-CORE recipients will be required to participate in the EDOCS data-collection activity coordinated by NSF EPSCoR and carried out by its designated entity. This activity is intended to facilitate standardized, accurate metrics tracking across projects and across time and to complement the projects' individual evaluation and assessment efforts.

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:

- Chinonye Nnakwe Whitley, telephone: (703) 292-8458, email: cwhitley@nsf.gov
- Benjamin J. McCall, telephone: (703) 292-7916, email: bjmccall@nsf.gov
- Pinhas Ben-Tzvi, telephone: (703) 292-8246, email: pbentzvi@nsf.gov
- Lisa C. Cliggett, telephone: (703) 292-2759, email: lcligget@nsf.gov
- Jose Colom-Ustariz, telephone: (703) 292-7088, email: jcolom@nsf.gov
- Andrea Johnson, telephone: (703) 292-5164, email: ANDJOHNS@nsf.gov
- Casonya M. Johnson, telephone: (703)292-2658, email: casjohns@nsf.gov
- Hongmei Luo, telephone: (703) 292-8867, email: hluo@nsf.gov
- Jeanne R. Small, telephone: (703) 292-8623, email: jsmall@nsf.gov

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: support@grants.gov.

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 Grants Conferences. 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 NSF's website.

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 https://www.grants.gov.

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 https://www.nsf.gov

- **Location:** 2415 Eisenhower Avenue, Alexandria, VA 22314

- **For General Information** (NSF Information Center)**:** (703) 292-5111
- **TDD (for the hearing-impaired):** (703) 292-5090
- **To Order Publications or Forms:**

  Send an e-mail to: nsfpubs@nsf.gov

  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 System of Record Notices, NSF-50, "Principal Investigator/Proposal File and Associated Records," and NSF-51, "Reviewer/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:

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