SUPPORTING STATEMENT FOR PAPERWORK REDUCTION SUBMISSION

National Science Foundation (NSF) Small Business Innovation Research (SBIR) Phase I, NSF Small Business Technology Transfer (STTR) Program Phase I, and NSF SBIR/STTR Fast-Track Pilots Pre-Submission Project Pitch Forms

SUPPLEMENTARY INFORMATION

Title of Collection: National Science Foundation (NSF) Small Business Innovation Research (SBIR) Program Phase I, NSF Small Business Technology Transfer (STTR) Phase I, and SBIR/STTR Fast-Track Pilot Pre-Submission Project Pitch Forms

Type of Request: New information collection (3145-NEW)

Section A. Justification

This request is for approval of a *Project Pitch Form* to be submitted by small business concerns interested in applying for funding from the *NSF SBIR/STTR Phase I* or *NSF SBIR/STTR Fast-Track Pilot* (Fast-Track Pilot) programs. The *Project Pitch Form* is the pre-submission step that conveys information needed to determine if the technical innovation is suitable for the NSF SBIR/STTR programs.

The NSF SBIR/STTR Phase I and Fast-Track Pilot programs reside in the <u>Directorate for Technology, Innovation and Partnerships (TIP)</u>, the agency's first new directorate in over 30 years. NSF's TIP Directorate collaborates with NSF's other directorates and fosters partnerships to support use-inspired research and the translation of research results to the market and society.

TIP structures each of its investments to advance one or more of the following core objectives¹:

- 1) Cultivate diverse innovation ecosystems throughout the U.S. to advance useinspired research and innovation in key technologies to address the Nation's societal and economic challenges;
- 2) Advance U.S. competitiveness in critical and emerging technologies by developing and translating innovations and addressing national challenges and
- 3) Grow a diverse, inclusive next-generation talent base and workforce around key technology and challenge areas, building expertise in necessary technical skills, use-inspired research and innovation, entrepreneurship, and translation.

The NSF SBIR/STTR Phase I and Fast-Track Pilot programs directly address TIP's second and third core objectives. By investing federal research and development funds into startups and small businesses, NSF helps build a strong national economy and stimulates the creation of novel products, services, and solutions in the private sector; strengthens the role of small businesses in meeting federal research and development needs; increases the commercial application of federally-supported research results; and develops and grows the U.S. workforce, especially by fostering and encouraging participation by socially and economically disadvantaged and women-owned small businesses.

The traditional NSF SBIR/STTR programs include two funding phases: Phase I (NSF 24-579) and Phase II (NSF 24-580).

¹ TIP Roadmap: https://nsf-gov-resources.nsf.gov/files/TIPRoadmap_WEB.pdf

Phase I is a 6- to 18-month experimental or theoretical investigation that allows the awardees to determine an idea or concept's scientific, technical, and commercial merit.

The Project Pitch is a pre-proposal submission requirement for small businesses considering proposing to either the *NSF SBIR/STTR Phase I* or the *Fast-Track Pilot* Programs. In order for small business concerns to apply to either program, they must first submit a Project Pitch Form,² which is reviewed by the cognizant SBIR/STTR Program Director (PD) and may or may not be invited to submit a full proposal. The data collected in the Project Pitch submission include brief descriptions of the Technology Innovation, Technical Objectives and Challenges, and Market Opportunity, as well as information on the Company and Team. For the Fast-Track Pilot submission, the Project Pitch encompasses the same information but also seeks responses to three key eligibility requirements:

- 1. NSF lineage;
- 2. Customer-discovery experience; and
- 3. Confirmation that the team members are currently in place (as opposed to not yet determined).

A.1 Circumstances Requiring the Collection of Data

Motivations behind the Project Pitch process are to:

- Determine whether a proposed innovation is suitable for NSF funding, saving potential proposers from expending time and effort on proposals that are not in acceptable technical areas:
- Save reviewers from the workload associated with reading and commenting on proposals that are not suitable for NSF funding; and
- Appropriately balance the workload among SBIR/STTR PDs.

A.2 Purpose and Use of the Data

The information collected in the Project Pitch will not only allow the programs to achieve the objectives outlined in Section A.1 but also allow NSF to see broad trends in community research interests.

The Project Pitch provides the name of the small business concern, information on its team, the proposed technology innovation, the technical objectives and challenges, and the market opportunity. The form also allows the proposer to choose (from a drop-down menu) the most relevant *NSF SBIR/STTR Phase I* and *Fast-Track Pilot* technical topic area, ensuring that the submitted Project Pitch goes to the most appropriate SBIR/STTR PD.

For the SBIR/STTR Fast-Track Pilot submission, the Project Pitch contains the same questions as outlined in the SBIR/STTR Phase I Project Pitch but also seeks responses to three key eligibility requirements: NSF lineage, customer-discovery experience and confirmation that the team members are in place (as opposed to not yet determined). These requirements restrict the number of applications for this pilot.

A.3 Use of Information Technology to Reduce Burden

All components in the collection will utilize secure electronic forms to minimize data errors and respondent burden. In some cases, NSF PDs, NSF staff, and/or NSF authorized representatives may contact the respondents for clarifications or follow-up questions to ensure quality assurance and use these conversations to increase the robustness of the data.

² The Project Pitch can be submitted at any time, but full proposals (to either program) must be submitted within two program cycle deadlines after receiving an official invite to apply.

A.4 Efforts to Identify Duplication

The data collection does not duplicate other efforts undertaken by NSF, other federal agencies, or other data collection agents.

A.5 Small Business

The proposers submitting Project Pitches are small business concerns. The only impact of this data collection on the business will be the time required for respondents to gather the information, complete the form, and/or engage in clarifying conversations with NSF PDs.

A.6 Consequences of Not Collecting the Information

If the information were not collected, NSF would be unable to (1) provide timely feedback on the suitability of the technology innovation to potential and future full-proposal applicants and (2) meet the Government Performance and Results Act (GPRA) and NSF merit review requirements [as outlined in the NSF *Proposal and Award Policies and Procedures Guide (PAPPG)*] for the large volume of (full) proposals being submitted to the program each year.

A.7 Special Circumstances Justifying Inconsistences with Guidelines in 5 CFR 1320.6

Data collected will comply with 5 CFR 1320.6. First, a valid OMB control number will be displayed at the beginning of the electronic form. Second, the NSF SBIR/STTR programs will communicate clearly—through proposal solicitations and the America's Seed Fund website, that such collection of information is voluntary, but it serves as a pre-submission step to the NSF SBIR/STTR funding application process.

A.8 Federal Register Notice and Consultation Outside the Agency

As required by 5 CFR 1320.8(d), the agency's notice was published in the *Federal Register* on June 13, 2024, at FR Doc. 2024-13380; the public comment period closed on August 19, 2024. No comments were made that were directly related to this data collection.

A.9 Payments or Gifts to Respondents

Not applicable.

A.10 Assurance of Confidentiality

Respondents will be informed that any information on specific individuals is maintained in accordance with the Privacy Act of 1974.

Respondents will be told that data collected are available to NSF officials and staff, authorized contractors, and/or grantees who manage the data and data collection software. Data will be processed according to federal and state privacy statutes. The system will limit authorized users' access to personally identifiable information. Data submitted will be used in accordance with criteria established by NSF for monitoring research and education grants and in response to Public Law 99-383 and 42 USC 1885c.

A.11 Questions of a Sensitive Nature

Information from the correspondents, including name, affiliated organization, and email address, is requested. This information will be used to send follow-up emails and/or email invitations to invite the small business concerns for a full proposal submission.

Individual-level and business-level data will be provided only to managing PDs, NSF senior management, and supporting staff conducting analyses using the data as authorized by NSF. Any public data reporting will be in aggregate form, and all personal identifiers will be removed.

A.12 Estimates of Response Burden

A.12.1. Number of Respondents, Frequency of Response, and Annual Hour Burden

Table 1. Respondents, Responses, and Annual Hour Burden

Collection Title	Number of project pitch submissions	Number of hours per submission	Annual Hour Burden
NSF SBIR/STTR Program Phase and Fast-Track Pilot Pre- Submission Project Pitch Form	19,000	1.5	28,500
Total	19,000	28,500	28,500

As shown in Table 1 above, the annual response burden for the collections under this request is between 11,000 and 38,000 hours – averaged to 28,500. The respondents are typically Principal Investigators (PIs), founders, co-founders, and/or other key personnel of the small business concerns.

A.12.2. Estimates of Annualized Cost to Respondents for the Hour Burdens

The following table shows the annualized estimate of costs to PI/Founder/Co-Founder/Business Partner respondents, who are often university professors. This estimated hourly rate is based on a report from the American Association of University Professors, "The Annual Report on the Economic Status of the Profession, 2022-23," Survey Report Table 1.

According to this report, the average salary of an associate professor across all types of doctoral-granting institutions (public, private-independent, religiously affiliated) was \$110,945. When divided by the number of standard annual work hours (2,080), this calculates to approximately \$53 per hour - \$80 per respondent to complete the form.

Table 2. Annuitized Cost to Respondents

Respondent Type	No. of	Total Burden	Average	Estimated
	Responses	Hours	Hourly Rate	Annual Cost
PIs, (co-) Founders, Assignees, Business Partners	19,000	28,500	\$80	\$1,520,000

A.13 Estimates of Total Capital and Startup Costs/Operation and Maintenance Costs to Respondents or Record Keepers

Not applicable.

A.14 Estimates of Costs to the Federal Government

On average, the managing Program Director will take about 30 minutes to review a Project Pitch.

Table 3. Responses, Time to Review, and Total Annual Time Burden for NSF PDs

Task	Number of project pitches	Number of hours to review	Total Time
PDs reviewing project pitches	11,000 – 19,000	0.5	5,500 – 9,500 hours/year

In addition, the secure web-based form is hosted by Salesforce, a customer relationship management application. Licensing would cost the government \$400,000, and maintenance (which includes help desk support, ad hoc data request and/or reporting, uploading metadata to the system, proposal tracking for due diligence, and other application and platform maintenance) would cost an additional \$525,000.

A.15 Change in Burden

Not applicable – this is a new collection.

A.16 Plans for Publication, Analysis, and Schedule

Not applicable. The information collected is used to assess whether the proposed technology innovation is a good fit for the NSF SBIR/STTR Phase I or Fast-Track Pilot programs and whether to invite small business concerns to submit a full proposal to the programs.

A.17 Approval to Not Display Expiration Date Not applicable.

A.18 Exceptions to Item 19 of OMB Form 83-I No exceptions apply.

Section B Not applicable.