

*centennialchallenges@mail.nasa.gov*.  
Phone: 256-544-1265.

**SUPPLEMENTARY INFORMATION:** NASA seeks to stimulate research and technology solutions to support future missions and inspire new national aerospace capabilities through public prize competitions called Centennial Challenges. The LunaRecycle Challenge is one such competition. Centennial Challenges are managed at NASA's Marshall Space Flight Center in Huntsville, Alabama and are part of the Prizes, Challenges, and Crowdsourcing program within NASA's Space Technology Mission Directorate (STMD) at the agency's Headquarters in Washington.

The LunaRecycle Challenge is a prize competition with up to a \$3,000,000.00 USD total prize purse to incentivize innovative approaches to develop and demonstrate novel recycling technologies and/or systems to convert solid (non-gaseous, non-biological, and non-metabolic) lunar waste streams into usable resources. This challenge has two tracks, Digital Twin track and Prototype Build track. At this time, NASA is opening Phase 1 of the competition, which has a \$1,000,000 USD prize purse. In this phase of competition, teams in the Digital Twin track will design a preliminary (low-fidelity) digital twin and visualization of their solution and teams in the Prototype Build track will develop a detailed design of their solution. Teams are not required to build or submit any hardware in Phase 1.

NASA is providing the prize purse for U.S. Teams, and the University of Alabama will be conducting the Challenge on behalf of NASA. NASA is considering a Phase 2 of the competition depending on the outcome of the Phase 1 competition.

### Summary

NASA is committed to sustainable space exploration. As NASA prepares for future human space missions, there will be a need to consider how various waste streams, including solid waste, can be minimized as well as how waste can be stored, processed, and recycled in a space environment so that little or no waste will need to be returned to Earth. In addition, NASA's STMD, which leads the development and demonstration of transformational technologies, has identified a number of research areas requiring further investment to meet future exploration, science, and other mission needs. These include topics such as trash management for habitation, in-space and on-surface manufacturing from recycled materials, and digital

transformation technologies for terrestrial, in-Space, on-Surface manufacturing and operations—all of which may be addressed through this challenge. By utilizing open innovation strategies in this area, NASA has the opportunity to incentivize novel solutions to the challenges of waste in space and ensure the sustainability of future space exploration, industrial activities, and habitats.

Through LunaRecycle challenge, NASA seeks to incentivize the design and development of innovative, sustainable recycling solutions that can address the types of solid waste expected to accumulate during longer-term missions on the lunar surface.

Phase 1 of the LunaRecycle challenge is focused on incentivizing recycling solutions for the lunar surface that maximize the amount of waste that can be recycled from a list of waste categories and items that are relevant to a hypothetical 365-day lunar mission. NASA is seeking designs that minimize resource inputs; unusable outputs; and the mass and/or volume of hardware components and systems needed for recycling. For the Digital Twin track, NASA is also seeking highly innovative and imaginative solutions that harness the full potential of a digital twin. In Phase 1, Teams will have approximately six (6) months to register and submit solutions. Phase 1 will last a total of eight (8) months, including approximately two (2) months of judging.

### I. Prize Amounts

The LunaRecycle Challenge offers a total prize purse up to \$3,000,000.00 USD (three million United States dollars) to be awarded across two (2) phases of competition.

Prize purse for Phase 1 will total up to \$1,000,000.00 USD (one million United States dollars), with the following prize distribution:

- Up to 8 top scoring U.S. Teams in the Digital Twin Track will receive \$50,000.00 each.
- Up to 8 top scoring U.S. Teams in the Prototype Build Track will receive \$75,000.00 each.

The Prize Purse for Phase 2, should there be promising submissions in Phase 1 that demonstrate a viable approach, will be worth up to \$2,000,000.00.

### II. Eligibility To Participate and Win Prize Money

To be eligible to win a prize, competitors must register and comply with all requirements in the Official Rules. Interested Teams should refer to the Official Challenge website ([https://](https://lunarecyclechallenge.ua.edu/)

[lunarecyclechallenge.ua.edu/](https://lunarecyclechallenge.ua.edu/)) for full details on eligibility and registration.

### III. Official Rules

The complete rules for the LunaRecycle Challenge, can be found at: <https://lunarecyclechallenge.ua.edu/>.

### IV. Further Information

For general information on the NASA Centennial Challenges please visit: <https://www.nasa.gov/prizes-challenges-and-crowdsourcing/centennial-challenges/>.

For general information on NASA prize competitions, challenges, and crowdsourcing opportunities, please visit: <https://www.nasa.gov/prizes-challenges-and-crowdsourcing/>.

#### Emily Pellegrino,

*Federal Register Liaison Officer, National Aeronautics and Space Administration.*

[FR Doc. 2024-21743 Filed 9-23-24; 8:45 am]

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## NATIONAL SCIENCE FOUNDATION

### Agency Information Collection Activities: Comment Request; NSF Small Business Innovation Research (SBIR) Program Phase I, NSF Small Business Technology Transfer (STTR) Program Phase I, and NSF SBIR/STTR Fast-Track Pilot Pre-Submission Project Pitch Form

**AGENCY:** National Science Foundation.

**ACTION:** Submission for OMB review; comment request.

**SUMMARY:** The National Science Foundation (NSF) has submitted the following information collection requirement to OMB for review and clearance under the Paperwork Reduction Act of 1995. This is the second notice for public comment; the first was published in the **Federal Register**, and no comments were received. NSF is forwarding the proposed submission to the Office of Management and Budget (OMB) for clearance simultaneously with the publication of this second notice.

**DATES:** Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Find this particular information collection by selecting "Currently under 30-day Review—Open for Public Comments" or by using the search function.

**FOR FURTHER INFORMATION CONTACT:** Suzanne H. Plimpton, Reports Clearance Officer, National Science Foundation,

2415 Eisenhower Avenue, Alexandria, Virginia 22314; telephone (703) 292-7556; or send email to [splimpto@nsf.gov](mailto:splimpto@nsf.gov). Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339, which is accessible 24 hours a day, 7 days a week, 365 days a year (including Federal holidays).

**SUPPLEMENTARY INFORMATION:**

*Comments:* Comments regarding (a) whether the proposed collection of information is necessary for the proper performance of the functions of the NSF, including whether the information shall have practical utility; (b) the accuracy of the NSF's estimate of the burden of the proposed collection of information; (c) ways to enhance the quality, use, and clarity of the information on respondents; and (d) ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology should be addressed to the points of contact in the **FOR FURTHER INFORMATION CONTACT** section.

Copies of the submission may be obtained by calling 703-292-7556. NSF may not conduct or sponsor a collection of information unless the collection of information displays a currently valid OMB control number, and the agency informs potential persons who are to respond to the collection of information that such persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

*Title of Collection:* NSF Small Business Innovation Research (SBIR) Program Phase I, NSF Small Business Technology Transfer (STTR) Program Phase I, and NSF Fast-Track Pilot Pre-submission Project Pitch Form.

*OMB Control No.:* 3145-NEW.

*Abstract:* The NSF Small Business Innovation Research Program (SBIR) Phase I, Small Business Technology Transfer Program (STTR) Phase I, and SBIR/STTR Fast-Track Pilot Project Pitch is an NSF SBIR/STTR pre-submission process that conveys information needed to direct the proposed SBIR/STTR project to the appropriate NSF Program Director (PD) for review and possible proposal submission invitation. The Project Pitch is to be submitted by the applying small business concern (as "proposer") to the relevant NSF SBIR/STTR Phase I or Fast-Track Pilot technology topic. The Project Pitch outlines solicitation-

specific aspects of the project (such as the proposed technology innovation)) and captures the same requested information, as outlined in the NSF SBIR/STTR Phase I and Fast-Track Program solicitations, but all within one secure, web-based form. Specifically, the form collects the submitting proposer company and team information, 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 Program Director. For the SBIR/STTR Fast-Track Pilot submission, the Project Pitch encompasses the same questions as outlined in the 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 currently employed by the company. These requirements expand on the details of the previously required information on the proposed technology innovation, the market opportunity, and the company and team, respectively.

*Respondents:* Small business concerns who submit proposals to NSF's SBIR/STTR Phase I and Fast-Track Pilot Programs.

*Estimated Number of Annual Respondents:* 2,500.

*Burden on the Public:* 3 hours (per response) for an annual total of 7,500 hours.

Dated: September 19, 2024.

**Suzanne H. Plimpton,**

*Reports Clearance Officer, National Science Foundation.*

[FR Doc. 2024-21843 Filed 9-23-24; 8:45 am]

**BILLING CODE 7555-01-P**

**NATIONAL SCIENCE FOUNDATION**

**Agency Information Collection Activities: Comment Request; Louis Stokes Alliances for Minority Participation (LSAMP) Program Evaluation**

**AGENCY:** National Science Foundation.

**ACTION:** Notice.

**SUMMARY:** The National Science Foundation (NSF) is announcing plans to establish this collection. In accordance with the requirements of the Paperwork Reduction Act of 1995, we are providing the opportunity for public comment on this action. After obtaining and considering public comment, NSF will prepare the submission requesting

Office of Management and Budget (OMB) clearance of this collection for no longer than 3 years.

**DATES:** Written comments on this notice must be received by November 25, 2024 to be assured consideration. Comments received after that date will be considered to the extent Practicable. Send comments to the address below.

**FOR FURTHER INFORMATION CONTACT:**

Suzanne H. Plimpton, Reports Clearance Officer, National Science Foundation, 2415 Eisenhower Avenue, Suite E6447, Alexandria, Virginia 22314; telephone (703) 292-7556; or send email to [splimpto@nsf.gov](mailto:splimpto@nsf.gov). Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339, which is accessible 24 hours a day, 7 days a week, 365 days a year (including Federal holidays).

**SUPPLEMENTARY INFORMATION:**

*Comments:* Comments regarding (a) whether the proposed collection of information is necessary for the proper performance of the functions of the NSF, including whether the information shall have practical utility; (b) the accuracy of the NSF's estimate of the burden of the proposed collection of information; (c) ways to enhance the quality, use, and clarity of the information on respondents; and (d) ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology should be addressed to the points of contact in the **FOR FURTHER INFORMATION CONTACT** section.

*Title of Collection:* Louis Stokes Alliances for Minority Participation (LSAMP) Program Evaluation.

*OMB Control No.:* 3145-NEW.

*Expiration Date of Approval:* Not applicable.

*Abstract:* This proposed data collection is a core component of a larger comprehensive evaluation strategy to assess the effectiveness and functioning of the Louis Stokes Alliances for Minority Participation (LSAMP) program, funded through grants from the National Science Foundation (NSF). LSAMP alliances are entities at member higher education institutions that support the learning and development of STEM undergraduates from underrepresented backgrounds.

This current research seeks to consider the experiences of those leading and participating in LSAMP since the last full evaluation (which