

Qualifying for the SBIR/STTR Proposal Lab

Win Non-Dilutive NSF Seed Money



- Small Business Administration
- OST Global Solution's GovCon Incubator
- MD Small Business Development Center



U.S. Small Business
Administration



SBIR/STTR: America's Seed Fund

- More than \$200M in NSF annual funding
- Over 400 new grant awards annually
- Stimulate technological innovation, use small businesses to meet Federal R&D needs
- Encourage participation by the socially and economically disadvantaged small businesses and women-owned businesses in technological innovation
- Increase private sector commercialization of innovations derived from Federal R&D, thereby increasing competition, productivity, and economic growth
- Foster technology transfer through cooperative R&D between small businesses and research institutions (STTR)
- The awards are comparable in size to angel investments in the private sector and indicate the acceptance of greater risk in support of agency missions
- **Except – NSF doesn't take a portion of your company and you don't have to repay the money**



Phase I is the concept phase

- NSF funds up to \$275,000
- 6-12 month Phase I projects
- Supports exploration of the technical merit or feasibility of an idea or technology
- Company retain the rights to the intellectual property
- Opportunity to obtain additional funding to continue technology development

- Phase II awards may last for up to 2 years and expand upon the Phase I results; Prototype development; up to \$1.5M, 24 months
- Phase III is the period during which Phase II innovation moves from the laboratory into the marketplace (commercialization)
- No SBIR funds support this phase
- The small business must find funding in the private sector or secure it from other non-SBIR Federal Agency funds that can fund continued development



Why the Lab is Focused on NSF?

- Grants, not contract awards
- Principal Investigator initiates approach vs. agency establishing plans, protocols, and requirements
- Less-specific topics vs. highly focused ones
- Assistance mechanism vs. procurement one
- More flexibility vs. stringent fiscal requirements
- Allows upfront payment vs. being invoiced on progress and having to get financing
- Funds support a public purpose, best efforts in research vs. binding agreements for goods/services
- Topics are broad, covering most areas other than drug development
- Phase II can be awarded at another agency
- The largest Phase I awards in SBIR/STTR arena

What is the SBIR/STTR Proposal Lab?

SBA FAST Grant Funding

TEDCO was awarded SBA's FAST Grant together with the team of:

- GovCon Incubator (OST Global Solutions, Inc.)
- Maryland Small Business Development Center (SBDC)

The Lab has been running annually since 2018 and has achieved 2.6 times the national win rate for SBIR/STTR proposals and 5.8 times the national win rate for women-owned small businesses

Focused on Maryland small businesses, especially women-owned, small disadvantaged, and rural businesses

In addition to SBA's funds, the team contributes its own time and resources to develop and conduct the SBIR/STTR Proposal Lab, allowing for a low participant payment



U.S. Small Business
Administration



APPLY TO THE SBIR/STTR PROPOSAL LAB AND LEARN TO WRITE A WINNING PROPOSAL



Applications are Open Until December 15, 2023 for
Maryland Small Businesses with Innovative Ideas

*Open to all Maryland small businesses, with preference given to women-owned,
small disadvantaged, and rural-based Maryland small businesses*

What is an SBIR/STTR Proposal Lab? The Proposal Lab helps you complete your Phase I SBIR/STTR proposal to NSF through hands-on training, reviews, and guidance. The Lab has been running since 2018 and has achieved 2.6 times the national win rate for graduates.

What is SBIR/STTR Funding? This is America's Seed Fund that awards up to \$275,000 in Phase I for R&D and eligibility to apply for Phase II funding of up to \$2,000,000.

What is the time frame? The Lab runs a series of 6 workshops with 2 reviews from January through June to help you develop and submit a compelling, compliant, competitive proposal.

What is the Cost? The SBIR/STTR Proposal Lab cost is only \$600, with the rest funded in part by the SBA FAST Grant, TEDCO, and OST Global Solutions.

We will select a cohort of up to 25 participants.

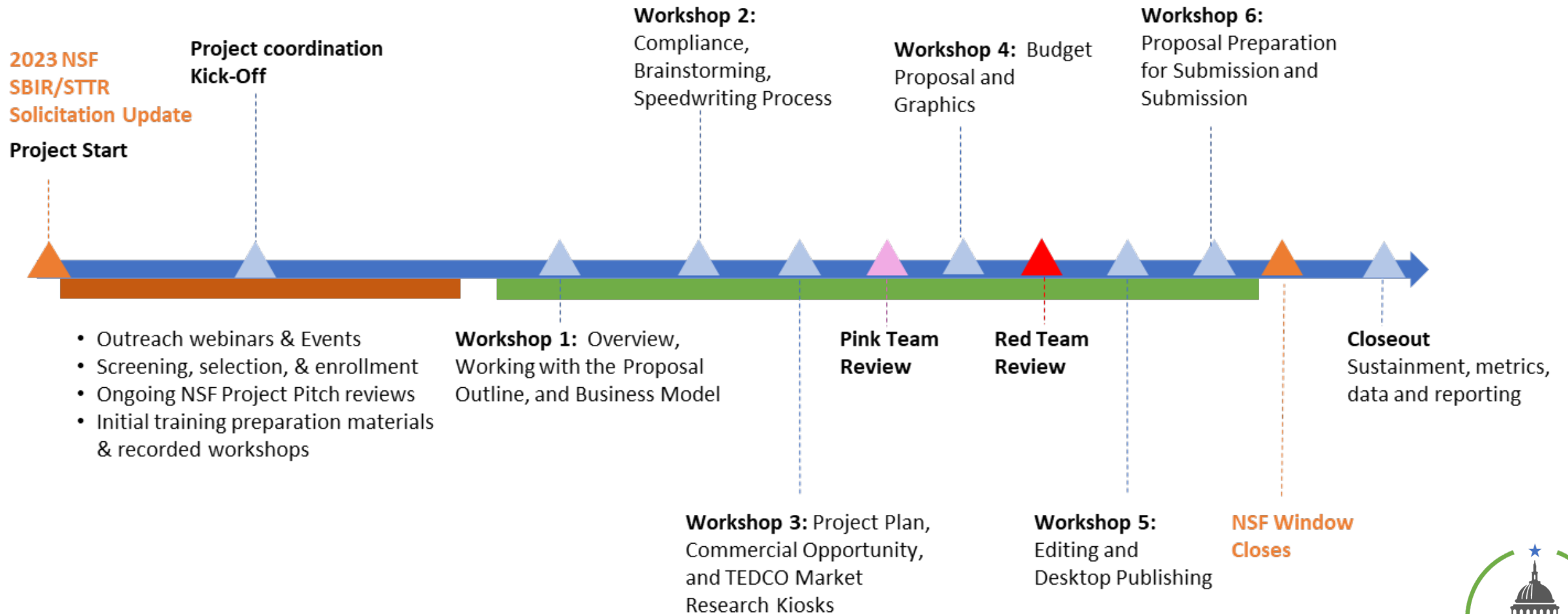


LEARN MORE AND APPLY:

<https://www.tedcomd.com/funding/tech-transfer/federal-tech-transfer/sbirproposal>

All opinions, conclusions, and/or recommendations expressed herein are those of the authors and do not reflect the views of the SBA.

Combination of Training, Hands-On Support and Reviews



NSF Project Pitch

- NSF requires a project pitch prior to the invitation to submit a full proposal
- Draft Pitch must be submitted with application
- Can be submitted at any time
- Typically, it takes about one month to get an official response from NSF staff
- See the pitch format here:
<https://seedfund.nsf.gov/apply/project-pitch/>
- The SBIR/STTR Proposal Lab will review your pitch prior to submission to NSF

1. The Technology Innovation. (Up to 500 words)

Describe the technical innovation that would be the focus of a Phase I project, including a brief discussion of the origins of the innovation as well as an explanation as to why it meets the program's mandate to focus on supporting research and development (R&D) of unproven, high-impact innovations.

2. The Technical Objectives and Challenges. (Up to 500 words)

Describe the R&D or technical work to be done in a Phase I project, including a discussion of how and why the proposed work will help prove that the product or service is technically feasible and/or will significantly reduce technical risk. Discuss how, ultimately, this work could contribute to making the new product, service, or process commercially viable and impactful. This section should also convey that the proposed work meets the definition of R&D, rather than straightforward engineering or incremental product development tasks.

3. The Market Opportunity. (Up to 250 words)

Describe the customer profile and pain point(s) that will be the near-term commercial focus related to this technical project.

4. The Company and Team. (Up to 250 words)

Describe the background and current status of the applicant small business, including key team members who will lead the technical and/or commercial efforts discussed in this Project Pitch



Workshop 1: SBIR/STTR Proposal Lab Kickoff, Outline Content, and Business Model

- **10 January 2024**
- Cohort Introductions
- Project Pitch and Proposal Status Check (review progress on early preparation efforts)
- Primer on the NSF SBIR/STTR Program
- Overview of the SBIR/STTR Proposal Lab program
- How to win an NSF grant
- Outline walk-through and content requirements
- Business Model Development
- Time management
- Proposal Virtual Portals
- Expected deliverables and assignments prior to next workshop

Workshop 2: Compliance, Brainstorming, Speed-Writing Process

- **7 February 2024**
- Proposal Status Check
- Foundations of writing faster and better
- The psychology of writing
- The correct writing process
- Group brainstorming on section content
- Individual brainstorming on section content
- Speed writing proposal sections
- Using tools to help write better and faster
- Getting Ready for the Pink Team 'Pens Down'

- **Review starts on 25 February 2024**
- Lab participants submit their proposals to 2 reviewers each, matched to the participant's topic
- Review lasts 1 week
- Reviewers provide group and individual feedback on participant's proposal content and quality up to date
- Reviewers also offer recommendations for improvement
- The standard for Pink Team is that the proposal draft is 60% NSF-ready and is compliant

Workshop 3: Project Plan, Commercialization, and TEDCO Market Research Kiosks

- **20 March 2024**
- Proposal Status Check
- Foundations of writing faster and better
- The psychology of writing
- The correct writing process
- Group brainstorming on section content
- Individual brainstorming on section content
- Speed writing proposal sections
- Using tools to help write better and faster
- Getting Ready for the Pink Team 'Pens Down'

Workshop 4: Budget Proposal and Graphics

- **17 April 2024**
- Proposal Status Check
- NSF Budget proposal walk-through (hands-on)
- Proposal graphics and visuals, and principles of the design
- Preparation for the Red Team 'Pens Down'

Workshop 5: Editing and Desktop Publishing (DTP)

- **8 May 2024**
- Proposal status discussion
- Proposal editing
- Desktop publishing
- Assignments review
- Upcoming deliverable dates

- **Review starts on 12 May 2024**
- Lab participants submit their proposals to 3 reviewers each, matched to the participant's topic
- Review lasts 1.5 weeks
- Reviewers provide group and individual feedback on the proposal's compliance and competitiveness
- The review includes full proposal including technical narrative, budget, resumes, and letters of support
- Reviewers offer recommendations for improvement
- The standard is that the proposal is 90% NSF-ready, within 10% of the page count, and compliant and compelling

Workshop 6: Proposal Preparation for Submission and Submission

- **14 June 2024**
- Proposal Status Check
- “Proposal wall” reviews to catch the last issues
- Loading proposals in the portal
- Hitting the “submit” button
- Submission Confirmation planning and process

Applicant Eligibility

Applicant small business must be U.S. owned

- U.S. Citizen
- U.S. Permanent Resident

Under 500 people

Research must be done in the U.S.

R&D-focused – not buying equipment, commercializing already developed technology, or very low risk technology that only needs capital

Investors can't own majority of the business; and for STTR there can be no investors



This Photo by Unknown Author is licensed under [CC BY-NC-ND](#)

Eligibility: Maryland Small Business

- **Must be a for-profit small business.** The definition for the SBIR program is one which, including its affiliates, has a number of employees not exceeding 500.
- **SBA's Women-Owned Small Business (WOSB)** definition is a company at least 51% owned and controlled by a female U.S. citizen.
- **SBA's Small Disadvantaged Business (SDB)** definition is a small business that is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged. SBA's identified socially disadvantaged groups include African Americans, Asian Pacific Americans, Hispanic Americans, Native Americans, and Subcontinent Asian Americans. Economically disadvantaged individuals are defined as those for whom impaired access to financial opportunities has hampered the ability to compete in the free enterprise system, in contrast to people in similar businesses who are not identified as socially disadvantaged.
- **Rural Maryland Small Business** is a small business located in Talbot, Caroline, Dorchester, Wicomico, Somerset, Worcester, Cecil, Harford, Kent, Queen Anne's, N. Baltimore, Frederick, Washington, Allegany, Garrett, Carroll, Charles, Calvert, or St. Mary's County.
- **Veteran-Owned Small Business (VOSB):** TEDCO will consider VOSBS that do not meet some of the above criteria
- TEDCO will check with Maryland tax authorities on your registration and status – you must be current or quickly correct the issue. If you don't have a company yet, you must reside and work in Maryland and register your business ASAP





- Can you apply if you have already developed a solution?
 - No – SBIR/STTR program funds innovative research and development – the purpose is not to retroactively pay a company for development that they may have already accomplished
 - It is okay to have done related work
 - You can investigate the application of an existing or even patented technology to new uses
- **Expectation: good research that will lead to a commercial product that will also benefit the nation**

[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

PI Eligibility

A single individual who will serve as the principal investigator

- Overall responsibility for the project
- Credible in terms of their education, work, and project management experience

Must be “primarily employed” by the applicant small business during the SBIR award period

- PI cannot be full time employed elsewhere during the SBIR award period

PI can be employed by the educational institution or small business if it's an STTR



This Photo by Unknown Author is licensed under [CC BY](#)

Comparing SBIR & STTR

	SBIR	STTR
Partnering Requirement	Permits partnering	Requires a non-profit research institution partner
Principal Investigator	Primary employment (>50%) must be with the small business	PI may be employed by either the research institution partner or small business (check solicitation)
Work Requirement	May subcontract up to: 33% (Phase I) 50% (Phase II)	Minimum: 40% Small Business 30% Research Institution Partner
Program Size	3.2% (FY19 - \$3.28B)	0.45% (FY19 - \$453M)
Majority VC ownership	Allowed by some agencies	Not allowed
Participating Agencies	11 agencies (extramural R&D budget > \$100M)	5 agencies (extramural R&D budget > \$1B)

Matching Your Idea to Agency Needs

NSF's Portfolio

If you can match your interests and talents with the specific needs of a Federal agency, you may be able to secure funding to conduct research and development with no strings attached

NSF's portfolio is here:

<https://seedfund.nsf.gov/apply/the-basics/>

Search the past awards here:

<https://seedfund.nsf.gov/awardees/history/>

ADVANCED MANUFACTURING →	ADVANCED MATERIALS	ADVANCED SYSTEMS FOR SCALABLE	AGRICULTURAL TECHNOLOGIES	ARTIFICIAL INTELLIGENCE	AUGMENTED AND VIRTUAL REALITY
M			G	AI	AV
BIOLOGICAL TECHNOLOGIES			ANCE	CYBERSECURITY AND AUTHENTICATION	DIGITAL HEALTH
BT			H	CA	DH
DISTRIBUTED LEDGER	TECHNOLOGIES	TECHNOLOGIES	COMPUTER INTERACTION	INSTRUMENTATION AND HARDWARE SYSTEMS	INTERNET OF THINGS
DL	EN	ET	HC	IH	I
LEARNING AND COGNITION TECHNOLOGIES	MEDICAL DEVICES	MOBILITY	NANOTECHNOLOGY	OTHER TOPICS	PHARMACEUTICAL TECHNOLOGIES
LC	MD	MO	N	OT	PT
PHOTONICS	POWER MANAGEMENT	QUANTUM INFORMATION TECHNOLOGIES	ROBOTICS	SEMICONDUCTORS	SPACE
PH	PM	QT	R	S	

Advanced Manufacturing: Sub-Topics

- Building and Infrastructure (M1)
- Carbon Sequestration (M2)
- Cybermanufacturing (M3)
- Distributed Manufacturing (M4)
- Ecomanufacturing (M5)
- Modeling and Simulation (M6)
- Natural Resources and Critical Minerals (M7)
- Quantum Device Manufacturing (M8)
- Sustainable Chemical Manufacturing (M9)
- Other Manufacturing Technologies (M10)

Questions to Consider for Proposal Success

- Have you participated in an I-Corps program?
- What related work have your PI and team done in this area?
- Do you know of any Conflicts of Interest that may prevent you from bidding on an SBIR/STTR proposal?
- Do you have prior, current, or pending support of similar proposals or awards?
- Is there any peer-reviewed research regarding the feasibility of what you plan to propose?
- Do you think there could be any patents resulting from your participation in the SBIR/STTR Program?
- Do you require and have access to the right facilities and equipment for research?
- Have you thought of how you would commercialize this technology – and what would be the commercial benefits?
- Will you be able to gather Letters of Support?

What's Important in an NSF SBIR/STTR Proposal



This Photo by Unknown Author is licensed under CC BY-NC

- The emphasis on **innovation** is important in SBIR/STTR and means that you are proposing a novel approach to pressing problems
- The approach proposed should be unproven and involve an element of technical risk
- Must clearly identify the innovation in your proposal
- Must not leave the recognition of your innovation to the imagination of the reviewers
- Learn how to articulate your innovation in the lab
- **Innovation** is a dynamic process in which new ideas turn into practical value in the world ... these generally include activities that introduce a new or significantly improved product, good, service, or process typically aligned with a market need <https://new.nsf.gov/tip/glossary>

- Attend 100% of all the workshops (no excuses other than extenuating circumstances)
 - A business meeting or customer work is NOT a good excuse
 - We will offer your spot to someone else on the waiting list
- Complete all assignments 100% on time
 - This keeps the entire cohort at the same pace without holding back others
 - Enables us to learn about problems and correct them early
 - Helps you submit a winning proposal so that all your work is not in vain and your great idea gets funded
 - Keeps stress level down for everyone involved
- Stick to the schedule and submit your proposal on time



How to Apply and Deadline

- Your application must include a DRAFT of your NSF Project pitch
 - For instructions, visit: <https://seedfund.nsf.gov/project-pitch/>
- Join us for weekly office hours to get last-minute questions answered
- Currently Interviewing applicants
- To ensure you have a good chance of a winning proposal, get your application in early
- Apply for the SBIR/STTR Proposal Lab at: <https://www.tedcomd.com/funding/tech-transfer/federal-tech-transfer/sbirproposal>
- **FIRM Deadline: 15 December 2023**
- The lab is filling quickly; we may not have time to interview those who apply closer to the application close date if all seats are filled
- Make your payment promptly to avoid losing your spot to someone wait-listed

Contact Information



Kim Mozingo

Director, Federal Programs

kmozingo@tedcomd.com

