

WELCOME

SECURE FUNDING

FOR YOUR

Innovative Idea

Informational webinar on Innovate Alabama's
SBIR/STTR Proposal Lab

The Lab provides essential support to help your proposal stand out.



SBIR/STTR

Proposal Lab



THE ALABAMA
COLLECTIVE



SBIR/STTR Proposal Lab Team

The Lab is funded by:

- The Small Business Administration FAST Grant
- Innovate Alabama
- The Catalyst Center for Business and Entrepreneurship
- The Alabama Collective
- The GovCon Incubator by OST Global Solutions



the catalyst
center for business
& entrepreneurship



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Goals of the Lab

- In-depth training in writing SBIR/STTR proposals in specific and government proposals in general
- Ability to apply the newly acquired knowledge immediately, reducing the “forgetting curve”
- SBIR/STTR proposals written and submitted to DOD and NSF with the help of a structured proposal management process, tools, and reviewer feedback
 - Historical win rate up to 2.5 times higher than the average national win rate
- Lifelong skills in government business development leading to further awards and professional skills
- Networking and connections to the Alabama entrepreneurial ecosystem



Lab Success Story: Dr. Liz Clayborne



- Dr. Elizabeth Clayborne, an ER physician and inventor, transformed her personal experience in nosebleed treatment into a commercially viable solution. By applying the step-by-step training of the SBIR/STTR Proposal Lab, she won an NSF Phase I grant and positioned her medical device company for triple-digit growth. Today, her pioneering device is set to revolutionize the management of nosebleeds in clinical and home settings.
- Despite her extensive clinical expertise, navigating the complex world of government grant applications presented a significant challenge for Dr. Clayborne. The process required understanding and articulating critical elements of proposals, aligning content with reviewer expectations, and structuring a compelling business case. Without extensive grant-writing experience, securing the necessary funding to bring her idea to life was an uphill battle.
- The hands-on training provided by the SBIR/STTR Proposal Lab transformed how Dr. Clayborne approached grant writing. Through focused workshops, she learned to translate complex medical innovations into clear, accessible proposals that met NSF criteria.
- The Lab emphasized concise, audience-driven language and strategic structuring, which helped her develop a successful application. Additional entrepreneurial training increased her confidence in pitching her technology to potential investors—a critical skill for securing further funding.



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Success Story: Dr. Liz Clayborne

- The impact of the Proposal Lab was far from theoretical. Dr. Clayborne gained tangible tools that transformed her business trajectory. With the NSF Phase I grant secured, her company's credibility skyrocketed, leading to an additional \$3.5 million in funding and a current \$4 million seed round.
- What began as a nosebleed device for ages 14 and up evolved into a reusable version ready to hit the market on Amazon—highlighting the Lab's role in driving innovation.
- The NSF Phase I grant was more than just financial support; it served as a launching pad for Dr. Clayborne's device, which simplifies nosebleed treatment through precise, directed pressure. This innovation addresses the annually documented 500,000 emergency department visits for nosebleeds. The versatility of the device extends beyond its original scope, offering potential use as a drug delivery platform for intranasal medications, including Narcan, analgesics, and seizure medications.
- For Dr. Clayborne, the value of the Proposal Lab extended well beyond securing grants. She gained access to a network of like-minded founders, vital resources, PR opportunities, and ongoing mentorship. This collaborative community, combined with her determination, has been pivotal in accelerating her company's progress.



SBIR/STTR: America's Seed Fund

- \$4.3 billion in competitive grant and contract awards funded in FY22
 - DOD provides over \$1 Billion and NSF provides more than \$200M in annual funding
- FY22 funding resulted in 6,000 awards to 3,700 awardees
- 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 – USG does not take equity and you don't have to repay the money**



Quick Program Overview

Phase I

- Awarded companies use Phase I funding to create proof-of-concepts for their innovations.
- Time Frame: 6-12 months
- Award Amounts: \$50,000-\$305,000

Phase II

- The objective of Phase II is to continue research and R&D efforts started in Phase I.
- Time Frame: 24 months
- Award Amounts: \$400,000-\$1.8 million

Phase III

- Based on Phase I & II activities, small businesses pursue commercialization in the private sector and/or federal contracting marketplace. No SBIR/STTR funding is awarded in Phase III.



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11 Participating SBIR & STTR Agencies

Department of
Agriculture (USDA)

Department of
Commerce
(NIST, NOAA)

Department of
Defense (DoD)

Department of
Education (ED)

Department of Energy
(DOE)

Department of Health
& Human Services
(HHS)
(NIH, FDA, CDC, ACL)

Department of
Homeland Security
(DHS)

Department of
Transportation (DOT)

Environmental
Protection Agency
(EPA)

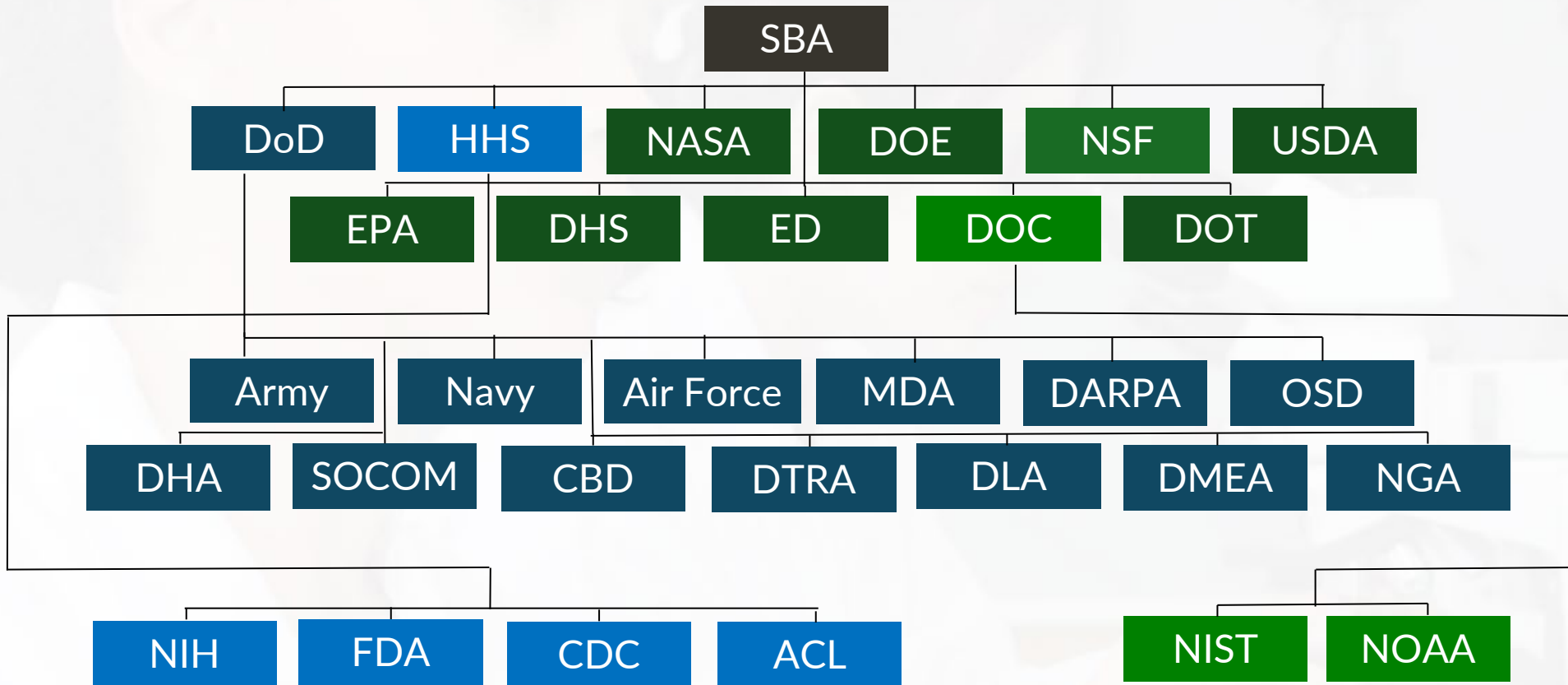
National Aeronautics
and Space
Administration (NASA)

National Science
Foundation (NSF)



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Federal SBIR/STTR Org Chart



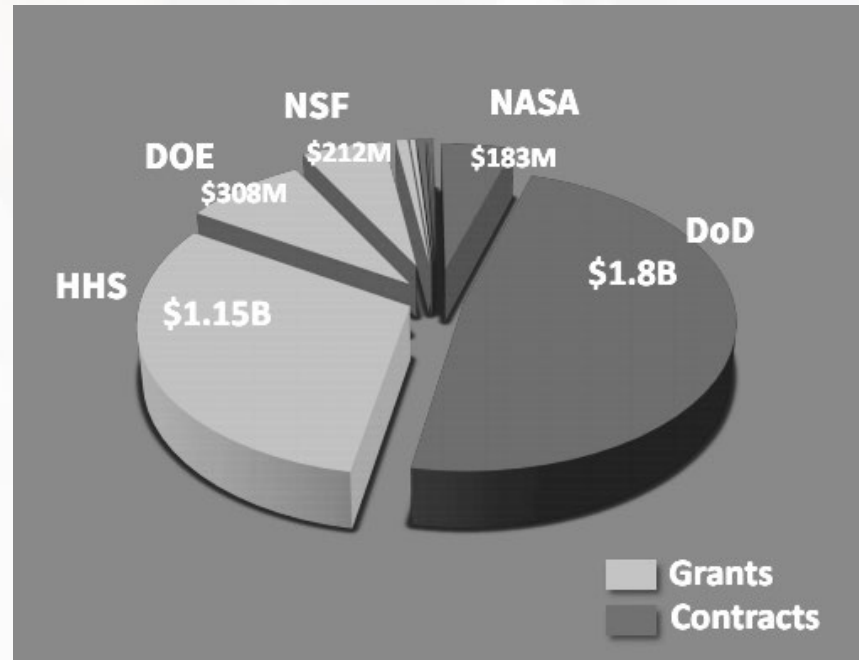
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Agency Budget Comparison



Contracts vs Grants

Agency-initiated	PI Initiated
Highly focused Topics	Less focused Topics
Procurement	Assistance
Fiscal Reporting	More flexibility
Invoiced on Progress	Allows upfront Payment
Binding agreement	Best effort in research
DoD, DHS, NASA, EPA, DOT, ED	NSF, DOE, USDA, NIST, NOAA
HHS – Both, mostly grants	



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Differences Between SBIR and STTR

	SBIR	STTR
Partnering Requirement	Permits Partnering	Requires a non-profit research institution partner
Principal Investigator	Primary employment (>50%) must be with small business	PI may be employed by either the research partner or small business.
Work Requirement	May subcontract up to: 33% Phase I 50% Phase II	Minimum: 40% Small business. 30% Research Institution
Program Size	\$3 + Billion	\$453+ Billion
VC Ownership	May be Allowable	Not Allowed
Participating Agencies	11 Agencies (Extramural R&D budget > \$100M)	6 Agencies (Extramural R&D budget >\$1 billion)



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Eligibility: SBIR/STTR Funding

- 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
- Investor ownership considerations



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Eligibility: The Principal Investigator

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

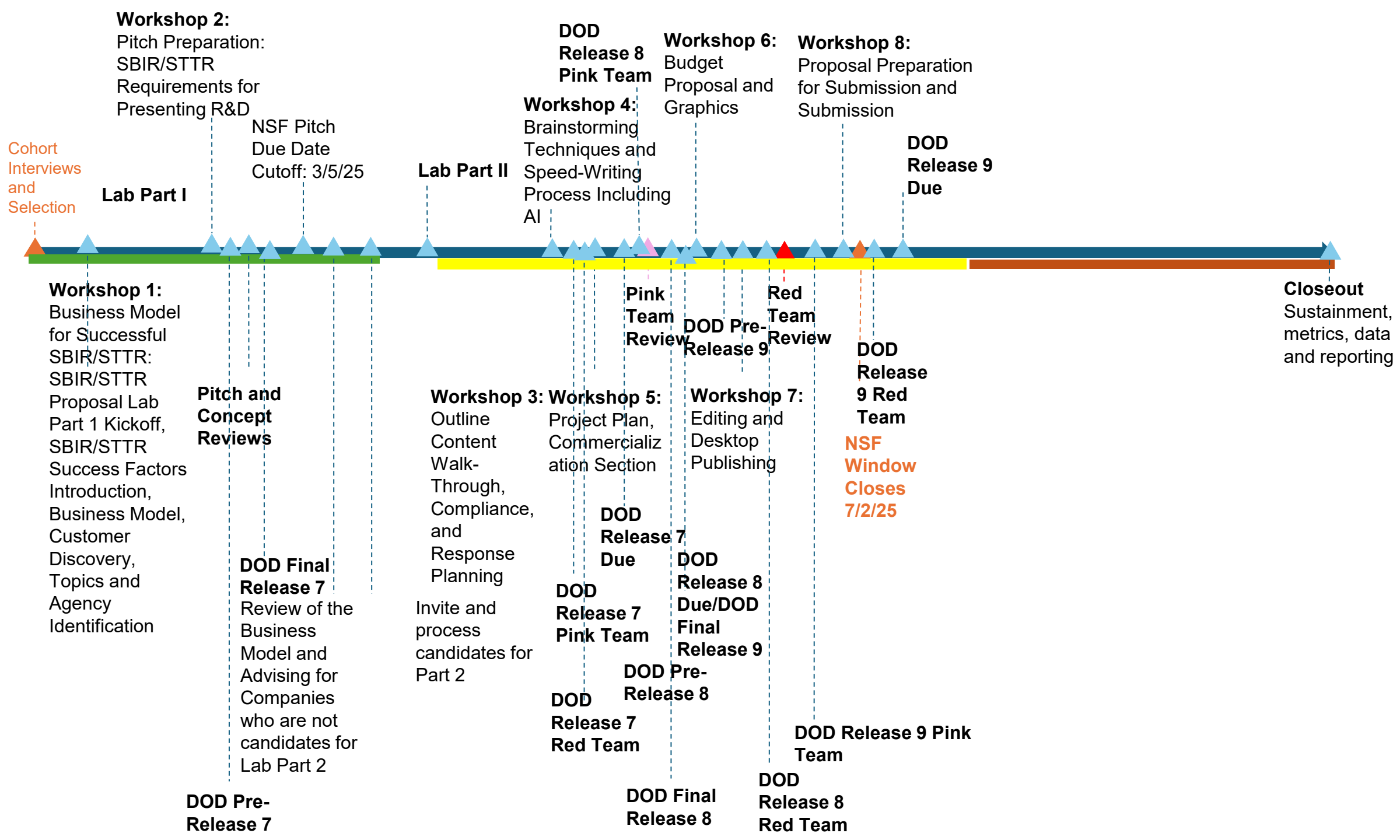
PI can be employed by the educational institution or small business if it's an STTR



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SBIR/STTR Proposal Lab Part 1

Preparing Your NSF Project Pitch



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Project Pitch or DOD Concept Review

- NSF requires a project pitch prior to the invitation to submit a full proposal
- Can be submitted at any time
- Typically, it takes 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
- For DOD, we will give you framework for your solution concept and mission fit
- You will need to prepare and present your solution and we will review it and offer feedback

- The Technology Innovation
- The Technical Objectives and Challenges
- The Market Opportunity
- The Company and Team



SBIR/STTR Proposal Lab Part 1– Workshop 1: Kickoff, Customer Discovery, and Business Model

4 March 2025

- Cohort Introductions
- Primer on the NSF and DOD SBIR/STTR Programs
- Overview of the SBIR/STTR Proposal Lab program
- How to win a DOD contract or NSF grant
- Business Model Development
- Expected deliverables and assignments prior to next workshop



Part 1 – Workshop 2: Pitch and Concept Preparation

- **25 March 2025**
- SBIR/STTR Requirements for Presenting R&D
- Framework for Innovation Subject to R and to D in R&D
- Satisfying NSF High Risk Requirements
- De-Risking the DOD bid
- Matching to the DOD topic
- Properly Articulating the NSF Pitch
- Hands-on Pitch Development and DOD Agency Mission Match and Concept Formulation



SBIR/STTR Proposal Lab Part 2

Developing Your NSF or DOD Phase I Proposal



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Workshop 3: Kickoff, Outline Content Walk -Through, Compliance, Response Planning

- **15 April 2025**
- Part 2 Overview and Schedule
- Proposal Lab SharePoint Portals
- Proposal and time management
- Outline content walk-through
- How to respond in a compliant manner
- Expected deliverables and assignments prior to next workshop



Workshop 4: Brainstorming and Speed-Writing Process

- **29 April 2025**
- Group & Individual brainstorming on section content
- Foundations of writing faster and better
- The psychology of writing
- The correct writing process
- Group & Individual brainstorming on section content
- Speed writing proposal sections
- Using tools to help write better and faster
- Expected deliverables and assignments prior to next workshop



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Workshop 5: Project Plan, Commercialization

- **13 May 2025**
- Proposal Status Check
- Project work plan preparation
- Group brainstorming on Commercialization
- Individual brainstorming on Commercialization
- Getting Ready for the Pink Team 'Pens Down' for NSF
- Pink Team tips for DOD proposals (Release-specific Pink Team dates)



Pink Team Review

- **NSF Review starts on 27 May 2025, DOD reviews are Release-specific**
- Lab participants submit their proposals to 2 reviewers each, matched to the participant's topic
- NSF Pink Team Review lasts 1 week, DOD Pink Team reviews are per-release, and last 2-5 days
- Reviewers provide group and individual feedback on participant's proposal content and quality
- Reviewers also offer recommendations for improvement
- The standard for Pink Team is that the proposal draft is 60% customer-ready and is compliant



Workshop 6: Budget Proposal and Graphics

- **3 June 2025**
- Proposal Status Check
- NSF Budget proposal walk-through (hands-on)
- DOD cost proposal walk through
- Proposal graphics and visuals, and principles of the design
- Expected deliverables and assignments prior to next workshop



Workshop 7: Editing and Desktop Publishing (DTP)

- **10 June 2025**
- Proposal status discussion
- Proposal editing
- Desktop publishing
- Assignments review
- Upcoming deliverable dates
- Preparation for the Red Team 'Pens Down' for NSF and tips for DOD proposals



Red Team Reviews

- **NSF Review starts on 18 June 2025, DOD reviews are Release-specific**
- Lab participants submit their proposals to 2 reviewers each, matched to the participant's topic
- NSF review lasts 1.5 weeks, DOD reviews are 2-5 days
- 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% customer-ready, within 10% of the page count, and compliant and compelling

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Workshop 8: Proposal Preparation for Submission and Submission

24 June 2025

- Proposal Status Check
- Virtual “proposal wall” reviews to catch the last issues
- Loading proposals in the portals
- Submission planning and process for NSF and DOD
- Hitting the “submit” button for NSF proposal submitters who are ready



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Questions to Consider for Proposal Success

- What related work have your PI and team done in the R&D area?
- Do you know of any Conflicts of Interest that may prevent you from bidding?
- Do you have prior, current, or pending support of similar proposals or awards?
- Is there peer-reviewed research supporting your proposal's feasibility?
- Could there be patents resulting from an SBIR/STTR award?
- 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?



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Your Commitment

- 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





NSF SBIR/STTR



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What's Important in an NSF SBIR/ STTR Proposal



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- 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>

Matching Your Idea to NSF's Needs

If you can match your interests and talents with DOD, you may be able to secure funding to conduct research and development with NSF that has broader topics areas.

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 → M	ADVANCED MATERIALS	ADVANCED SYSTEMS FOR SCALABLE	AGRICULTURAL TECHNOLOGIES	ARTIFICIAL INTELLIGENCE	AUGMENTED AND VIRTUAL REALITY
BIOLOGICAL TECHNOLOGIES BT	Advanced Manufacturing: Sub-Topics <ul style="list-style-type: none"> • 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) 			CYBERSECURITY AND AUTHENTICATION	DIGITAL HEALTH
DISTRIBUTED LEDGER DL	TECHNOLOGIES	TECHNOLOGIES	COMPUTER INTERACTION	INSTRUMENTATION AND HARDWARE SYSTEMS	INTERNET OF THINGS
LEARNING AND COGNITION TECHNOLOGIES LC	MEDICAL DEVICES	MOBILITY	NANOTECHNOLOGY	OTHER TOPICS	PHARMACEUTICAL TECHNOLOGIES
PHOTONICS PH	POWER MANAGEMENT	QUANTUM INFORMATION TECHNOLOGIES	ROBOTICS	SEMICONDUCTORS	SPACE



DOD SBIR/STTR



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DOD SBIR/STTR Overview

- Unlike other SBIR/STTR programs such as NSF which have consistent topic areas and where the PI has more leeway in designing their technology/innovation around the topic area, DOD SBIR/STTR topics are focused on a specific need that aligns to a technology area.
 - The onus is on the PI to develop their technology/innovation to meet a specific need.
 - If there isn't a specific need for your technology/innovation and/or your technology/innovation does not align with an existing technology area, then pursuing a DOD SBIR/STTR may not be recommended.
- DOD has a set of releases that occur throughout the year (see the following slide).
- Each month has a pre-release that will be released at the beginning of each month, followed by the submission window opening approximately two weeks after the pre-release.
- The submission window will then close within thirty days of the opening date.



DOD SBIR/STTR Schedule

Solicitation Schedule (Dates are subject to change)

FY 2025 DoD SBIR/STTR Solicitation Schedule			
Solicitation Cycle	Announcement Period		
	Pre-Release Date	Open Date	Close Date
SBIR 25.4/STTR 25.D Release 1	Oct 2, 2024	Oct 23, 2024	Nov 20, 2024
SBIR 25.4/STTR 25.D Release 2	Nov 6, 2024	Dec 4, 2024	Jan 8, 2025
SBIR 25.4/STTR 25.D Release 3 SBIR 25.1/STTR 25.A	Dec 4, 2024	Jan 8, 2025	Feb 5, 2025
SBIR 25.4/STTR 25.D Release 4	Jan 8, 2025	Jan 29, 2025	Feb 26, 2025
SBIR 25.4/STTR 25.D Release 5	Feb 5, 2025	Feb 26, 2025	Mar 26, 2025
SBIR 25.4/STTR 25.D Release 6	Mar 5, 2025	Mar 26, 2025	Apr 23, 2025
SBIR 25.2/STTR 25.B SBIR 25.4/STTR 25.D Release 7	Apr 2, 2025	Apr 23, 2025	May 21, 2025
SBIR 25.4/STTR 25.D Release 8	May 7, 2025	May 28, 2025	Jun 25, 2025
SBIR 25.4/STTR 25.D Release 9	Jun 4, 2025	Jun 25, 2025	Jul 23, 2025
SBIR 25.4/STTR 25.D Release 10	Jul 2, 2025	Jul 23, 2025	Aug 20, 2025
SBIR 25.3/STTR 25.C SBIR 25.4/STTR 25.D Release 11	Aug 6, 2025	Aug 27, 2025	Sep 24, 2025
SBIR 25.4/STTR 25.D Release 12	Sep 3, 2025	Sep 24, 2025	Oct 22, 2025

<https://www.dodsbirsttr.mil/submissions>

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DOD Critical Technology Areas

- Each DoD Service/Component develops mission-oriented SBIR and STTR topics for their programs; however, topics generally align with the OUSD(R&E) critical technology areas.
- An OUSD(R&E) principal director leads each critical technology area; they are responsible for unifying and advancing the Department's investments and capabilities in that area.
- The topics and the participating agencies for each release are generally not known until the pre-release is posted, although sometimes they can be posted earlier. This can make predicting the topics and participating agencies tricky.
- DOD has a set of technology areas identified and while these do not specifically identify topics to be released, it give an indication of the services' priorities and additionally by reviewing previously released topics, this can assist with predicting the upcoming topics.
- Current and previous topics, along with solicitation instructions can be viewed here: <https://www.dodsbirsttr.mil/topics-app/>
- See DOD's 14 Critical Technology Areas at: <https://www.cto.mil/usdrestat-vision-critical-tech-areas/>

<https://www.cto.mil/usdrestat-vision-critical-tech-areas/>

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How to Apply for the Lab

- **Firm Application Deadline: February 28, 2025**
- Apply at: <https://catalystcenter.org/programs/government-contracting-center/sbir-sttr-proposal-lab/>
- Starting Interviews in January 2025, rolling admissions on a first-come, first-serve basis for those who qualify
- To ensure you have a good chance of a winning proposal, get your application in early
- The lab fills quickly; we may not have time to interview those who apply closer to the application close date if all seats are filled
- Pay promptly to avoid losing your spot to someone wait-listed
- Lab costs: \$250 for Part 1 and \$500 for Part 2; fees reimbursed if you submit a proposal at the end of Part 2



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