

North Carolina Defense Technology Transition Team (DEFTECH)

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DEFTECH.nc.gov

INNOVATION AND TECHNOLOGY (ITEC) SEMINAR



Agenda

Welcome and Opening Remarks

Session 1: Overview of R&D Opportunities

Session 2: SBIR and STTR Opportunities

Session 3: Other Federal R&D Opportunities

Session 4: NC Innovation Ecosystem partners

Session 5: North Carolina Resources and Incentives

Closing and Q&A



Disclaimer

The opinions expressed by participants in this meeting do not necessarily represent the official views or positions of the NC Military Business Center, the NC Defense Technology Team, the North Carolina Community College System, or the State of North Carolina.

This meeting and its contents are provided for informational purposes only and do not constitute legal advice.

The NC Military Business Center, the NC Defense Technology Team, the North Carolina Community College System, or the State of North Carolina assume no responsibility for any actions taken based on the information provided during this meeting.



Overview

Mission: Aligned with the North Carolina Military Business Center (NCMBC), DEFTECH's mission is to leverage DoD R&D opportunities to drive growth in North Carolina's defense ecosystem .

NCMBC Goals and Operations:

1. Increase federal revenues for businesses
2. Support technology transition to federal agencies
3. Support integration of the military into the workforce
4. Support defense-related business recruitment

Outcomes: Supported businesses won 5,488 contracts worth \$17.83 billion

Core Competencies

Business Development and Technology Innovation Acceleration

| Operations at Colleges | Future Opportunities | Current Opportunities |
|------------------------|-------------------------|----------------------------|
| Recruit to market | Identify, analyze | ID, analyze most lucrative |
| Engage in market | Connect to businesses | Connect to businesses |
| Training, webinars | Market intelligence | Solicitation support |
| Counseling, 1-on-1 | Pre-positioning | Proposal support |
| Events, statewide | Teaming, subcontracting | Contract execution |



Other Information

- The NCMBC is a business development and technology transition entity of the State of North Carolina, embedded in the state's community colleges with 17 offices statewide
- Totally State-funded, the NCMBC is the only statewide, military-focused economic development entity in the US, and the only NC entity solely focused on growing the defense economy through existing industry



NC Defense Innovation Ecosystem Partners



DEFTECH Ecosystem

The North Carolina Defense Technology Transition Team (DEFTECH) is a state-funded North Carolina Military Business Center entity.

The North Carolina Innovation Ecosystem consist of:

- Businesses
- Universities and Community Colleges
- Public-Private Partnerships
- Investors
- State Agencies
- Military Commands



About DEFTECH

DEFTECH serves DoD, federal agencies, and the innovation ecosystem by:

Scouting the state for breakthrough technologies

Coaching industry to identify defense applications

Communicating federal technology needs

Positioning businesses to meet requirements

Representing North Carolina to federal customers

Conducting emerging technology forums

Serving as the North Carolina liaison to DoD and federal innovation offices

Our main goal is to help innovative NC companies win federal and Department of Defense (DoD) contracts and grants.



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Why Present Your Technology or Innovation to the Federal Government?

- For contracts
 - DoD budget for FY 2025 is \$**848.9** billion
- For Research, Development, Test, and Evaluation (RDT&E)
 - DoD budget for FY 2025 is \$**2.3** billion

Story



Three Types of Funding

1. Contracts

- Small Business Innovative Research (SBIR)
- Small Business Technology Transfer (STTR)

2. Grants

- Small Business Innovative Research (SBIR)
- Small Business Technology Transfer (STTR)

3. Other Transaction Authorities (OTA)



Non-dilutive Funding

Keep your equity and IP.

4,000 Average number of companies funded per year

- \$4 Billion Funds invested each year
- 0% Equity or IP ownership taken by the government



Consortia and OTAs

A consortium is an agreement, combination, or group (as of companies) formed to undertake an enterprise beyond the resources of any one member.

- An organized group that consists of members in the form of non-profits, academic institutions, or contractors focusing on a specific technology area.
- Members of a consortium pool resources and collaborate.

Joining a consortium is not difficult or expensive.

- The company/contractor merely pays a small membership fee ranging from around \$500 to \$5000 depending on the size of the company.

They are typically funded using OTAs

- An “Other Transaction Agreement” or “Other Transaction Authority” (OTA) is a streamlined vehicle that brings innovative research findings and state-of-the-art prototypes from industry to the Federal Government
- OTs, unlike Federal Acquisition Regulations (FAR) procurement contracts, have very few regulatory restrictions and a broad field in which to operate.



Consortia

| Consortia Name | OTA Name (if applicable) | Acronym / Shorthand | OTA Number |
|---|--|---------------------|-----------------------|
| <u>America's Datahub Consortium</u> | America's Datahub Consortium OTA | ADC | Not applicable |
| <u>Biopharmaceutical Manufacturing Preparedness Consortium</u> | Biopharmaceutical Manufacturing Preparedness Consortium OTA | BioMaP | <u>75A50123D00003</u> |
| <u>Consortium for Command, Control, Communications in Cyberspace (C5)</u> | Command, Control and Communications in Cyberspace OTA | C5 | <u>W15QKN1795555</u> |
| <u>Consortium for Energy, Environment and Demilitarization (CEED)</u> | Consortium for Energy Environment and Demilitarization OTA | CEED | <u>W9132T209D001</u> |
| <u>Cornerstone*</u> | Cornerstone | Cornerstone | Not applicable |
| <u>Countering Weapons of Mass Destruction Consortium</u> | Countering Weapons of Mass Destruction OTA in support of the JPEO-CBRND Office | CWMD | <u>W15QKN1891004</u> |
| <u>Defense Automotive Technologies Consortium</u> | Automotive Cyber Security, Vehicle Safety | DATC | <u>W56HZV1690001</u> |
| <u>Defense Electronics Consortium</u> | Defense Electronics Consortium OTA | DEC | <u>W52P1J2193008</u> |
| <u>Defense Industrial Base Consortium (DIBC)</u> | Defense Industrial Base Consortium OTA | DIBC | <u>HQ0034249C00B</u> |
| <u>DHS SVIP*</u> | DHS Silicon Valley Innovation Program | DHS SVIP | Not applicable |
| <u>DIU*</u> | Defense Innovation Unit | DIU | Not applicable |
| <u>Expeditionary Mission Consortium</u> | Expeditionary Mission Consortium OTA | EMC | <u>N001642490001</u> |
| <u>Information Warfare Research Project</u> | Information Warfare Research Project | IWRP 2 | <u>N652362290001</u> |
| <u>Information Warfare Research Project</u> | Information Warfare Research Project | IWRP 3 | <u>N652362490003</u> |
| <u>Maritime Sustainment Technology and Innovation Consortium (MSTIC)</u> | Maritime Sustainment Technology and Innovation Consortium OTA | MSTIC | <u>N644982190001</u> |
| <u>Medical CBRN Defense Consortium</u> | Medical Countermeasure Systems OTA | MCDC | <u>W15QKN1691002</u> |
| <u>Medical Technology Enterprises Consortium</u> | Medical Technology Enterprise Consortium OTA | MTEC | <u>W81XWH1590001</u> |

CRADAs

A **Cooperative Research and Development Agreement (CRADA)** is a written contract between a federal laboratory and a non-federal entity to collaborate on research and development.

CRADAs are used by the Department of Defense (DoD) to strengthen the industrial base and improve the effectiveness of its systems and forces.

How CRADAs work

- The federal laboratory provides resources like personnel, equipment, facilities, and services.
- The non-federal entity provides resources like personnel, equipment, facilities, services, and funds.
- The CRADA defines the tasks to be completed.
- The CRADA grants the government a license for government purposes.
- The non-federal entity receives a license for internal use of any inventions resulting from the CRADA.
- The non-federal entity can negotiate a commercial license for the inventions.

Who can collaborate on CRADAs?

- Federal and non-federal partners
- Academia
- Large and small businesses
- Foreign businesses
- Units of state or local government
- Public and private foundations
- Nonprofit organizations



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SBIR and STTR

Through the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs the Government awards **non-dilutive** funding to develop your technology and chart a **path toward commercialization**.

<https://www.sbir.gov/topics>



SBIR vs STTR

SBIR

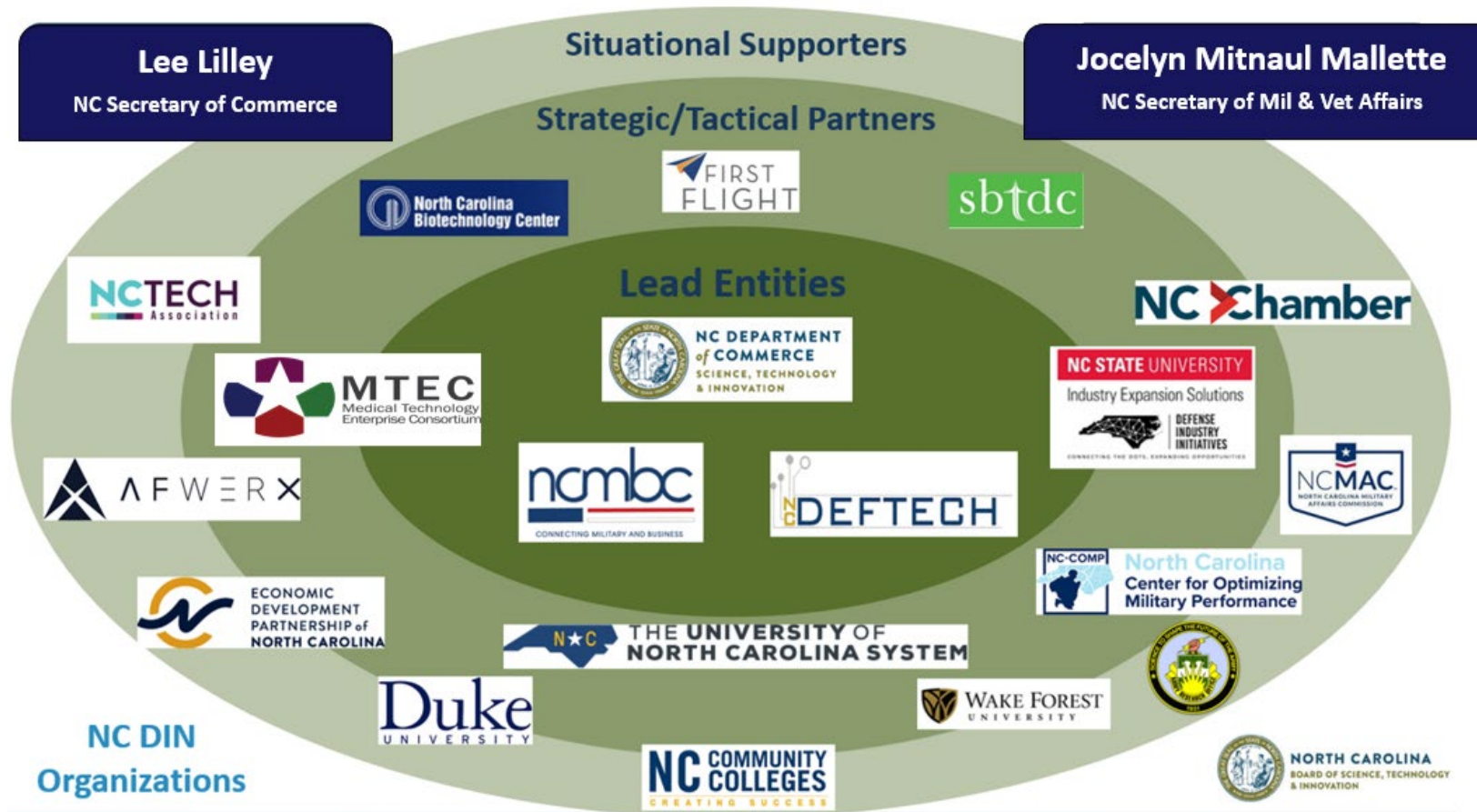
- Only for small businesses
- Up to 33% may be subcontracted (Phase I)
- 11 federal agencies offer SBIR
- Total of \$3.5B annually

STTR

- Small biz + research institution
- 30 to 60% **must** be done by the partner research institution
- 6 federal agencies offer STTR
- Total of \$450M annually



NC STTR Research Institutions



- NC State
- UNC
- Duke
- Wake Forest
- ECU
- RTI



Requirements

- A Small Business is the recipient of funds
- Must be for-profit and US-based
- 51% owned by individuals
- Under 500 employees*

*Over 50% of awards go to businesses under 10 persons in size.
46% are first time SBIR/STTR winners!



U.S. Small Business
Administration



SBIRs

Federal Funding of Innovation

DOD SBIR/STTR Phases

- Phase I Feasibility Study Phase (up to 250K):
 - **Awards up to \$250K.** Around 1000-1500 awards are granted annually.
- Phase II Prototype Development Phase (up to 1.83M):
 - **Awards up to \$1.83M.** Roughly 300-500 Phase IIs awards granted annually (typically)
 - Direct to Phase II are topics where the government is looking to skip the Phase I process altogether.
- Phase III Sole Source Production Contract:
 - This phase does not have a fixed award amount, meaning contractors essentially create your own contract vehicle and can sell to any agency as **a sole source provider of your offering**. Dozens are awarded each year.

<https://www.sbir.gov/topics>



SBIRs

Search Open Topics

Keywords

Search

Reset



NOTE: The Solicitations and topics listed on this site are copies from the various SBIR agency solicitations and are not necessarily the latest and most up-to-date. For this reason, you should visit the respective agency SBIR sites to read the official version of the solicitations and download the appropriate forms and rules.



For best search results, use the search terms first and then apply the filters. **Search results are downloadable for 10,000 or fewer records.**

Filter Results

Date Range

Open Date

mm/dd/yyyy

From

mm/dd/yyyy

To

Close Date

mm/dd/yyyy

From

mm/dd/yyyy

Status

☒ Open

☐ Closed

Showing 1-10 of 398 results

Download

[Small Business Informatics Tools for the Pangenome \(R43 Clinical Trial Not Allowed\)](#)

Open Release Date: December 10, 2024 | Open Date: February 3, 2025 | Close Date: March 4, 2025



Section I. Notice of Funding Opportunity Description...

SBIR

Phase I

[Small Business Informatics Tools for the Pangenome \(R41 Clinical Trial Not Allowed\)](#)

<https://www.sbir.gov/topics>



How it works



How to apply

Do you have an idea for a specific technology solution?
Explore opportunities for funding to take your idea from
concept to commercialization.



<https://www.sbir.gov/topics>



Identify Opportunities

With help from organizations that
support technology entrepreneurs
like you



Apply

With the help of supporting
organizations

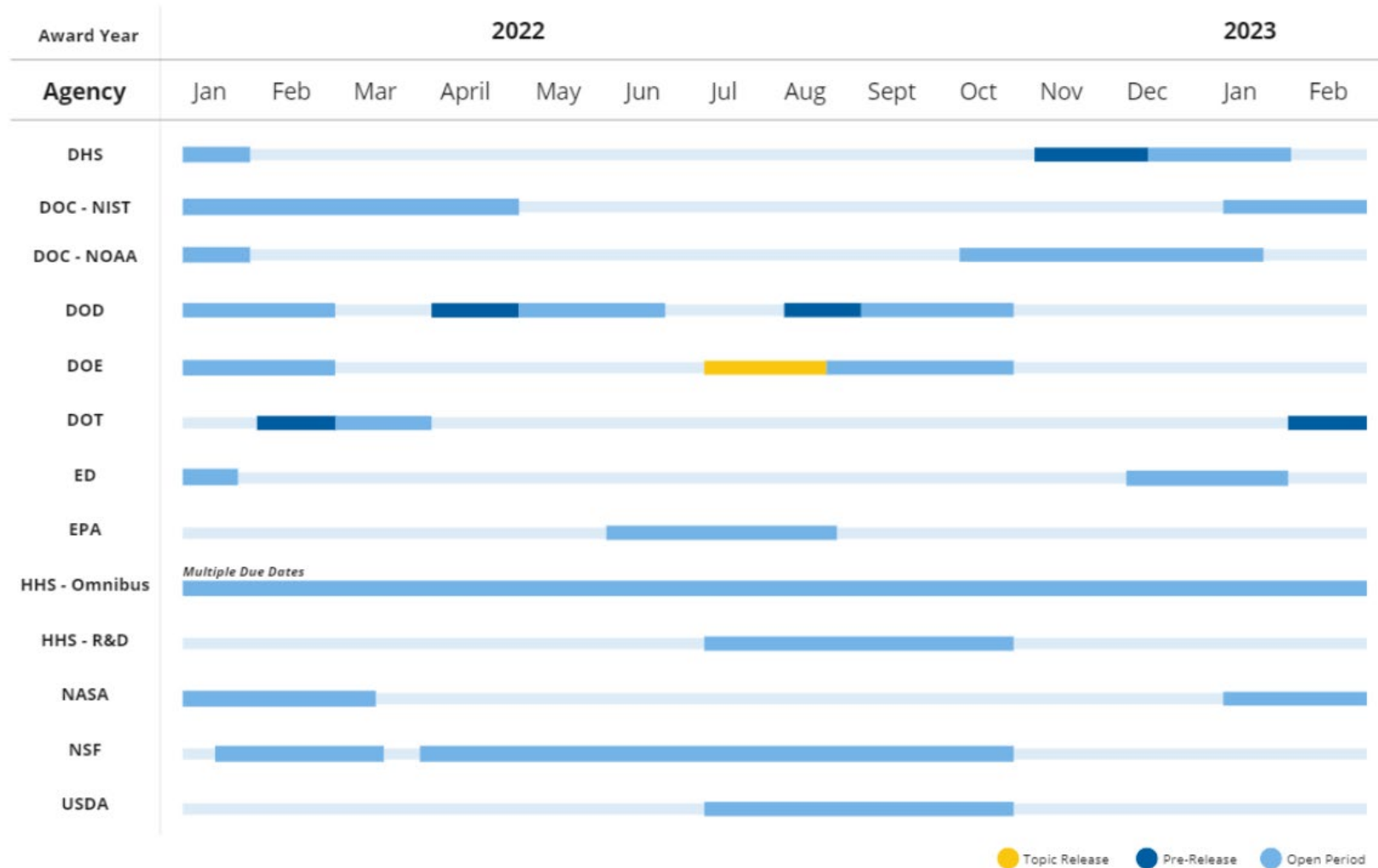


Develop Your Idea

America's Seed Fund provides
funding with the freedom to
manage your business your way.



SBIR/STTR Funding Planner



DOD SBIR/STTR Funding Planner

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

FY 2025 DoD SBIR/STTR Solicitation Schedule

Dates are subject to change

| Solicitation Cycle | Announcement Period | | |
|--------------------------------|---------------------|--------------|--------------|
| | Pre-Release Date | Open Date | Close Date |
| 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 25.4/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 25.4/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 |



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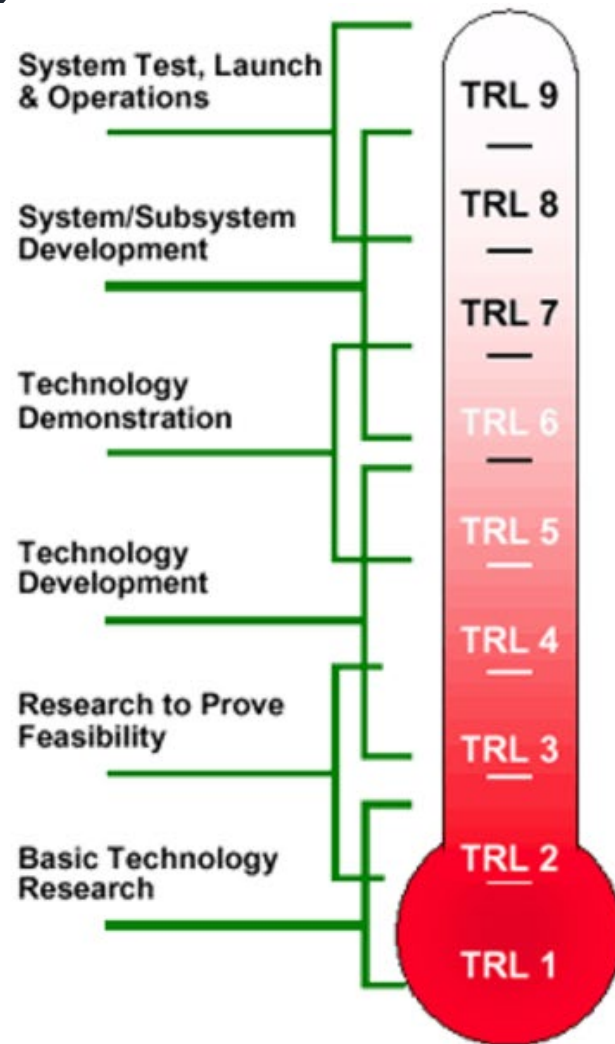
Session 4: NC Innovation Ecosystem partners

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Closing and Q&A



Where You Submit Depends on the Technology Readiness Level



Manufacturing Readiness Level

| | | |
|---|----|--|
| Material Solutions Analysis | 1 | Basic manufacturing implications identified |
| | 2 | Manufacturing concepts identified |
| | 3 | Manufacturing proof-of-concept developed |
| | 4 | Capability to produce the technology in a laboratory environment |
| Technology Development | 5 | Capability to produce prototype components in a production relevant environment |
| | 6 | Capability to produce a prototype system or subsystem in a production relevant environment |
| Engineering and Manufacturing Development | 7 | Capability to produce systems, subsystems or components in a production representative environment |
| | 8 | Pilot line capability demonstrated. Capability in place to begin full rate production |
| Production and Deployment | 9 | Low rate production demonstrated. Capability in place to begin full rate production. |
| Operation and Support | 10 | Full rate production demonstrated and lean production practices in place |

AIM Photonics Manufacturing Focus



Programs For All Readiness Levels

1. TRL 1-3 – DARPA

- Early stage, disruptive technology
- SBIR or OTA



2. TRL 4-6 – SBIRs

- Some development, **with dual use**
- Government contract or grant



3. TRL 6-9 - DIU

- Late stage, rapid intro to military
- Usually OTA



11 SBIR/STTR Agencies

\$ Funding
Contract/grant
SBIR/STTR

Department of Agriculture (USDA)



\$42 Million
 \$125,000 - \$175,000
 \$600,000
 Grants
SBIR/STTR

Supports: Forests Resources, Plant and Animal Production and Protection, Conservation of Natural Resources, Food Science and Nutrition, Rural Development, Aquaculture, Biofuels and Biobased Products, Small and Mid-Size Farms

Department of Commerce (DOC)



\$15 Million
 \$100,000
 \$400,000
 Grants
SBIR

Funds technologies in support of the missions of the National Oceanic and Atmospheric Administration (NOAA) and the National Institutes of Standards and Technology (NIST).

Department of Defense (DOD)



\$2.3 Billion
 \$50,000 - \$250,000
 \$800,000 - \$1.82 Million
 Contracts
SBIR/STTR

Priority Areas include: 5G, AI/Autonomy, Biotechnology, Control and Communications, Cybersecurity, Directed Energy, Hypersonic, Microelectronics, Network Command, Nuclear, Quantum Sciences, Space, and more.

National Aeronautics and Space Administration (NASA)



\$174 Million
 \$150,000
 \$1 Million
 Contracts
SBIR/STTR

Seventeen (17) technology areas, including: Propulsion Systems, Flight Computing and Avionics, Aerospace Power and Energy Storage, Robotic Systems, Communications, Navigation, and Orbital Debris Tracking/Characterization Systems.

National Science Foundation (NSF)



\$215 Million
 \$300,000
 \$1.25 Million
 Grants
SBIR/STTR

Funds almost all areas of technology and market sectors (with the exception of clinical trials).

Department of Homeland Security (DHS)



\$18 Million
 \$150,000
 \$1 Million
 Contracts
SBIR

Funds innovation supporting: Borders and Maritime Security, Chemical and Biological Defense, Critical Infrastructure and Resilience, Cybersecurity, Explosives Detection and Aviation Screening, First Responders, and more.

Department of Transportation (DOT)



\$9 Million
 \$200,000
 \$1 Million
 Contracts
SBIR

Funds technologies in support of DOT Operating Administration: Federal Highway Administration, Federal Railroad Administration, Federal Transit Administration, and Pipeline and Hazardous Materials Safety Administration.

Environmental Protection Agency (EPA)



\$5 Million
 \$100,000
 \$400,000
 Contracts
SBIR

Broadly funds technologies addressing Air Quality, Homeland Security, Sustainable Materials Management, Safe Chemicals, Land Revitalization, and Clean and Safe Water.

Department of Energy (DOE)



\$315 Million
 \$200,000 - \$250,000
 \$1.1 Million - \$1.6 Million
 Grants
SBIR/STTR

Research areas include: Advanced Scientific Computing Research, Environmental Management, Fossil Energy, Biological and Environmental Research, Fusion Energy Science, Cybersecurity, Energy Security, Renewable Energy, and more.

Department of Education (ED)



\$10 Million
 \$250,000
 \$1 Million
 Contracts
SBIR

Funds New Education Technology Products for Use by Students, or Educators, or those used by Infants, Toddlers, or Students With or At Risk for Disabilities, or Teachers in Early Intervention or Special Education Settings

Health and Human Services (HHS)



\$1.2 Billion
 \$275,000+
 \$1.83 Million
 Grants
SBIR/STTR

Funds health, life science, and biomedical discoveries that could impact the lives of patients and their families.

SBIR Agencies

<https://www.dodsbirsttr.mil/topics-app/>

Department of Defense (DOD)



\$2.3 Billion



\$50,000 -
\$250,000




\$800,000 -
\$1.83 Million



Contracts

SBIR/STTR

Priority Areas include: 5G, AI/Autonomy, Biotechnology, Control and Communications, Cybersecurity, Directed Energy, Hypersonic, Microelectronics, Network Command, Nuclear, Quantum Sciences, Space, and more.

**DSIP** Defense SBIR/STTR
Innovation Portal
Proposal Submissions

HOME SOLICITATION INFO PROGRAM INFO [Login/Register](#)

Filter By

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More Filters

Sort by (12)

Topic #

[Reset to Default](#)

Solicitation: [All Active Solicitations](#) Topic Status: [Pre-Release](#) [Open](#)

SBIR Agencies

Department of Homeland Security (DHS)



\$18 Million
 \$150,000
 \$1 Million
 Contracts

SBIR

Funds innovation supporting: Borders and Maritime Security, Chemical and Biological Defense, Critical Infrastructure and Resilience, Cybersecurity, Explosives Detection and Aviation Screening, First Responders, and more.

<https://oip.dhs.gov/sbir/public/how-to-apply-page#sbir>



Department of Homeland Security
(DHS)

How to apply for Small Business Innovation Research

Step-by-Step guide to help you apply. Select a card below for more details.

For more in depth information on any of the steps below, please visit the [SMALL BUSINESS INNOVATION RESEARCH \(SBIR\) PROGRAM POLICY DIRECTIVE](#).



Eligibility



Proposal Requirements



Identify Opportunity



Begin Your Submission

Identify Opportunity

Find the Opportunity (Solicitation) on SAM.gov for which you'd like to apply:

- In the Search Box provided by SAM.gov, type "DHS SBIR" as your input.

Opportunities may be divided into:

- Pre solicitation
- Full solicitation

FAQs

[Privacy Policy](#)
[Privacy Act Statement](#)
[Contact Information](#)

Small Business Assistance

[Reauthorization Act of 2011](#)
[Fraud Waste and Abuse](#)
[SBIR Program Portal](#)



Sign up for the SBIR mailing list to stay up to date.

First Name

Last Name

@Email to

Company

Sign Up

[Agency Website](#)

[Science & Technology](#)

[S&T Directorate BAA Website](#)

[S&T](#)



Defense Advanced Research Projects Agency

DARPA explicitly reaches **for transformational change (Internet, GPS, etc)** instead of incremental advances. It works within an innovation ecosystem that includes academic, corporate and governmental partners, with a constant focus on the Nation's military Services, which work with DARPA to create new strategic opportunities and novel tactical options.



DARPA's FY 2025 budget is \$4.369 billion

Before you submit a proposal you are HIGHLY encouraged to speak with the appropriate Program Manager at DARPA.

DARPA Program Manager: <https://www.darpa.mil/about-us/people>

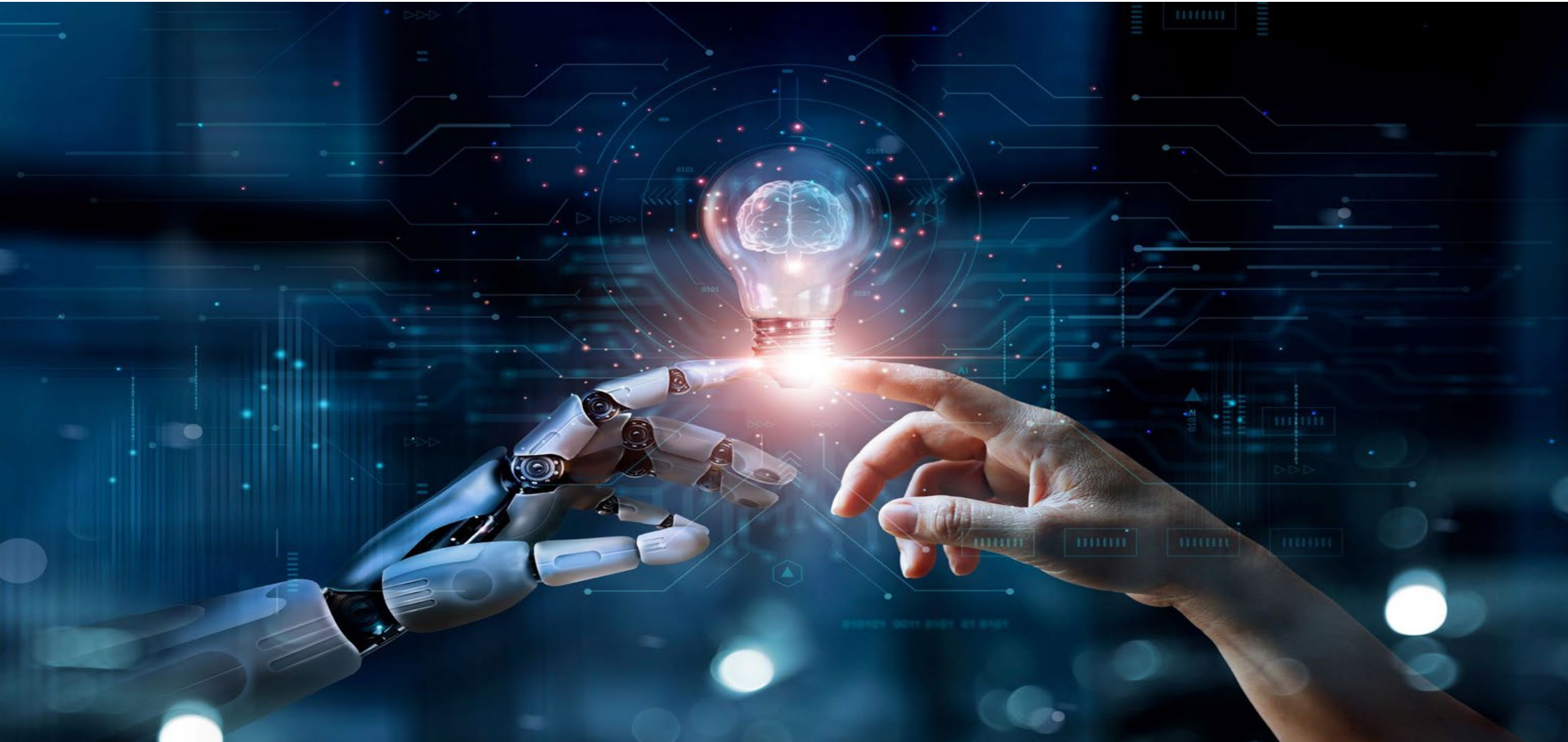
Engage with PMs part 1: <https://www.youtube.com/watch?v=2b72LArUezs>

Engage with PMs part 2: <https://www.youtube.com/watch?v=qIMGXedeIJA>

SBIR/STTR program - <https://www.darpa.mil/work-with-us/for-small-businesses/participate-sbir-sttr-program://www.darpa.mil/our-research>



10 min Break



Presenting Your Innovation to Federal Agencies

Your innovation is your “baby” and you think of it and talk about it in your way. That’s fantastic, **BUT...**

Example:



The people you would like to present your innovation to (the ones with the \$\$\$) are

- Very regimented
- Review 100’s if not 1000’s of innovations every year
- Probably as an additional duty

They want to see your information in very specific formats

- **Heilmeier Catechism**
- **White papers**
- **Quad charts**



Heilmeier Catechism

Most DARPA proposal submission begin with you sending in a 5-page or less synopsis of what you propose using the Heilmeier Catechism to a program manager.

Key Questions of the Heilmeier Catechism



- H1. What are you trying to do?
- H2. How is it done today, and what are the limits of current practice?
- H3. What is new in your approach, and why do you think it
- H4. Who cares? If you are successful, what difference will it make?
- H5. What are the risks?
- H6. How much will it cost?
- H7. How long will it take?
- H8. What are the midterm and final "exams" to check for success?



White paper

- A whitepaper is a persuasive, authoritative, in-depth report on a specific topic that presents a problem and provides a solution.
- Companies create whitepapers to educate their audience about a particular issue or explain and promote a particular innovation or technology.
- The information in a white paper can be used in Quad Charts



White Paper Template

This template is provided as a suggested format.

1. Company Information

Provide the following information: Company Name, CAGE code, Company Size (large or small), and RFI number (if applicable). Include a synopsis outlining the firm's capabilities, facilities (location, square footage, etc.), and experience.

2. Background/Problem Statement

Provide a brief background and identify the problem and problem statement. Please include all NSNs, Part Numbers, Nomenclature, Equipment List (if applicable), and Type (Manufacture, Repair or Overhaul, Reverse Engineering, Repair Development, Additive Manufacturing). What current problem does this project address?

3. Solution

What is the intent/objective of this effort? Provide a summary of the effort to include solution and value to the USAF. Describe solution(s) company is proposing. How is your company going to accomplish the task? Make a compelling case that the problem in question is significant enough it warrants a USAF investment. What are the potential benefits?

4. Deliverables

Provide intended deliverables (i.e. Test Plan, Test Results, Drawings, Tech Data Package, Specifications, Prototype, and First Article). What will this effort entail? How will this effort address the needs outlined in the previous sections? Please discuss the ownership of the Technical Data Package.



White Paper Template

5. Rough Order of Magnitude (ROM)

Provide estimated total cost for the effort. If the proposed solution is divided into phases, please include the deliverables and cost of each phase or stage.

6. Schedule

Provide a draft timeline of effort to include major activities/tasks and milestones. When will items be delivered (i.e. TDP or First Article)? What is the anticipated completion of the effort?

7. Conclusion

Synthesize the request, the benefits to the USAF, and the deliverable(s).

8. Disclaimer(s)

USE AND DISCLOSURE OF DATA – “This white paper includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate Return on Investment of effort”



Quad Chart

- Provide a standardized format
- That addresses specific information
- Customized for a specific requirement/agency
 - You may need multiple quad charts
- Enabling evaluators to make quick decisions regarding
 - ✓ Need
 - ✓ Technology
 - ✓ Possibility of successful implementation





Example SCOUT CARD

Warfighter ACS

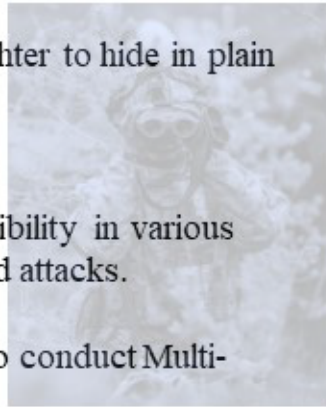
Company Logo

Name of Company
POC: name/phone/email

Problem

Technology name, picture, and a brief description:

Adaptive Camouflage System (ACS) allows the Warfighter to hide in plain sight.



What problem do you solve?

Warfighters face increased vulnerability due to their visibility in various environments, making them susceptible to detection and attacks.

Next-generation stealth is required for the Joint Force to conduct Multi-Domain Operations.

Solution Specifics

How do you solve the problem?

The Adaptive Camouflage System utilizes advanced materials and real-time image processing to dynamically adjust the appearance of military personnel and equipment, providing effective camouflage in different terrain and conditions.

ACS seamlessly blends with the surroundings, significantly reducing the chances of detection by enemy forces.



Impact and Technical Approach

Technology Readiness Level (TRL): 6 | ACS has been demonstrated in a relevant operational environment in DAX '22 with positive feedback from Special Operations Soldiers.

What is the Impact of your Solution?

The impact of the Adaptive Camouflage System includes enhanced survivability, reduced risk of enemy detection, improved stealth capabilities, and increased operational effectiveness in various mission scenarios.

The Technical Approach: NC A&T patented engineering principles used to create and advance the technology.

Performance

End-user payoff/expected operational value/new capability: ACS is a transformational innovation to increase protection for Warfighters, reduce casualties, improve mission success rates, and enhance operational flexibility.

Dual-Use (Commercial/ Military) applications for the technology solution: Integration into Law Enforcement, commercial security systems, wildlife tracking and monitoring, and stealth surveillance for hunters.





Template SCOUT CARD:

Capability Name

Company Logo

Name of Company
POC: name/phone/email

Problem

Technology name, picture, and brief description:

- Provide a concise overview of the evaluated technology.

What problem do you solve?

- Identifying the specific problem or challenge faced by the Warfighter (military personnel or units).

Solution Specifics

How do you solve the problem?

- Details of how the technology proposed in the quad chart addresses the identified problem.

Why you? What makes you different from the competition?

- Unique Selling Proposition (USP)

Impact and Technical Approach

Technology Readiness Level (TRL): The TRL scale ranges from 1-9

Manufacturing Readiness Level (MRL): The MRL scale ranges from 1-10

What is the Impact of your Solution?

- The potential impact of the proposed technology on addressing the identified problem.

What is the Technical Approach?

- Methodology employed in developing the technology.

Performance

End-user payoff/expected operational value/new capability:

- Expected outcomes or benefits that end-users, typically the Warfighter, would gain from employing the proposed technology.

Dual-Use (Commercial / Military) applications for the technology solution:

- Technology's potential applications beyond the military domain in both commercial and military contexts.

1. Problem

Technology name, picture, and brief description: This section of the DEFTECH TIDE Tech Scouting Quad Chart provides a concise overview of the evaluated technology. It includes the

- name of the technology,
- a representative picture,
- and a brief description that highlights its key features and functionalities.

What problem do you solve?

- Identify the specific problem or challenge.
- Which SBIR topic or transformation issue does it address.
- How it addresses the issue.
- Define the gap or need that the technology aims to fill.



2. Solution Specifics

How do you solve the problem? How does your proposed technology address the identified problem?

- Describe the specific
 - capabilities,
 - features, or
 - functionalities that make the technology a viable solution.
- Highlight the technology's unique selling points or advantages
- Any key components, algorithms, methodologies, or approaches

What makes you different from the competition?

- **Unique Selling Proposition (USP)**
 - A USP communicates the key factors that separate your product from the competition.
 - It communicates your brand's values and differentiates what your company offers.



3. Impact and Technical Approach:

Technology Readiness Level (TRL): The TRL scale ranges from 1 to 9, with 1 indicating basic principles observed and 9 representing a fully operational technology deployed and proven in its intended environment. The TRL assigned to the technology indicates the level of technological development and readiness for deployment. It helps evaluate the feasibility and potential risks of implementing the technology within the desired context.

Manufacturing Readiness Level (MRL): The MRL scale ranges from 1-10, with 1 indicating basic manufacturing implications being identified and 10 representing full rate production being in place.

What is the Impact of your Solution? The impact could include improvements in efficiency, effectiveness, cost reduction, enhanced capabilities, reduced risks, or any other positive outcomes that can be attributed to the technology.

Technical Approach: What is the technical approach or methodology employed in developing the technology. It overviews the key steps, processes, or methodologies used to design, build, and refine the solution. The technical approach may involve specific engineering principles, scientific methods, research and development practices, software development methodologies, or other relevant approaches used to create and advance the technology. This section highlights the technical expertise and innovation behind the solution.



4. Performance

End-user payoff/expected operational value/new capability: What are the expected outcomes or benefits for end-users. Outline the potential to provide a significant and measurable advantage or new capability. This could include increased operational effectiveness, improved situational awareness, enhanced decision-making capabilities, reduced workload, increased speed. (Faster, Lighter, more Capable)

Dual-Use (Commercial / Military) applications for the technology solution: Describe how the technology can be employed by both commercial and military users. Describe the technology's potential for broader adoption, scalability, and commercialization.

- how the technology can be re-purposed,
- modified, or
- integrated into existing commercial systems or processes



Agenda

Welcome and Opening Remarks

Session 1: Overview of R&D Opportunities

Session 2: SBIR and STTR Opportunities

Session 3: Other Federal R&D Opportunities

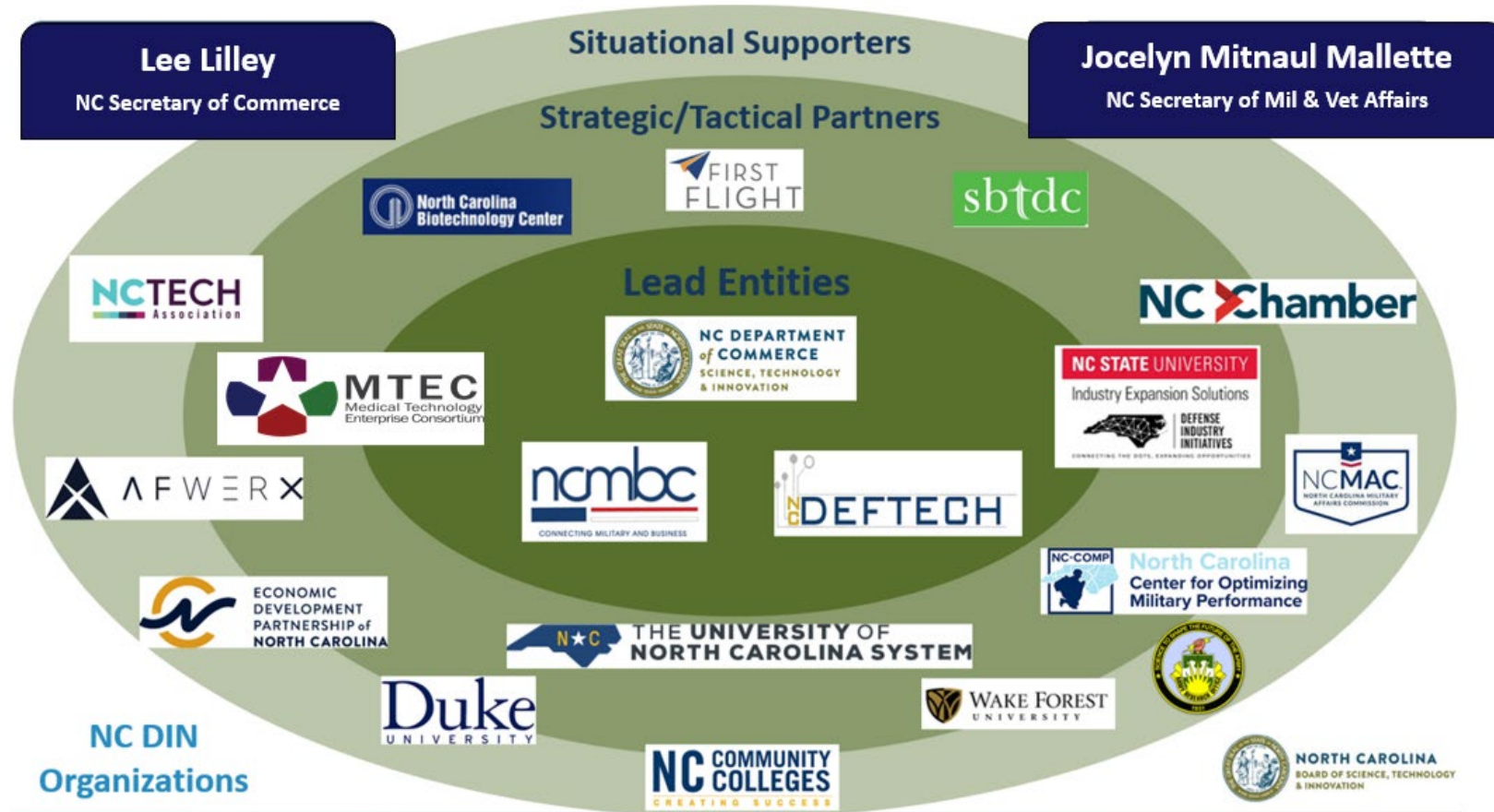
Session 4: NC Innovation Ecosystem partners

Session 5: North Carolina Resources and Incentives

Closing and Q&A



Introduction to Ecosystem Partners



Agenda

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Session 1: Overview of R&D Opportunities

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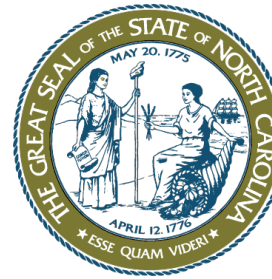
Closing and Q&A



One NC Small Business Grant Program

Goals:

- Increase number of SBIR and STTR Phase I awards
- Increase research caliber in Phase I projects
- Increase success in securing Phase II awards



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<https://www.commerce.nc.gov/grants-incentives/technology-funds/one-north-carolina-small-business-program>



One NC Incentive Program

Up to \$12,000

- 50-75% reimbursement of proposal prep expenses
- Ticket to apply: Phase I proposal submission letter
- Example reimbursement expenses:
 - Documented employee/self salaries*
 - deferred salaries are not eligible
 - Proposal writing consultant



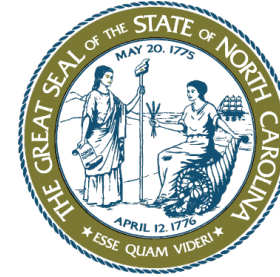
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One NC Match Program

Up to \$75,000

- 50% match of the Phase I SBIR/STTR award
- Ticket to apply: Phase I award notification letter
- Purpose: bridge gap between Phase I and Phase II funding



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Closing Thoughts

- For contracts
 - DoD budget for FY 2025 is \$848.9 billion
- For Research, Development, Test, and Evaluation (RDT&E)
 - DoD budget for FY 2025 is \$2.3 billion



**Let DEFTECH
help you.**



Upcoming Events

- [Federal Food Symposium](#) (April 1-2, Fayetteville)
- [Southeast Region Federal Construction, Infrastructure, and Environmental Summit](#) (April 22-24, Wilmington)
- [Federal and Defense Textile and Tactical Gear Summit](#) (May 20-21, Raleigh)
- [Medical, Biomedical, and Biodefense: Support to the Warfighter Symposium](#) (June 4-5, Chapel Hill)
- [Federal Technology Symposium](#) (September 9-10, Fayetteville)
- Defense Industrial Sustainment for Combat Systems (DISC Summit (Nov 18, Chapel Hill)



Upcoming Events

SBIR proposals event by SBTDC - Tuesday April 22nd

- How to communicate with technical points of contact before a solicitation is released
- How to identify solicitations and when they are released
- Communication during open pre-solicitation period
- Proposal guidance – what DoD is looking for in strong proposals and how does this compare to other SBIR/STTR funding agencies
- Commercialization discussion – what does this look like in a DoD proposal
- Guidance on open topic opportunities

Registration link is available at:

<https://sbtdc.org/events/dod-sbir-sttr-program-proposal-workshop>



Next Steps

1. Join our next Friday Coffee Call and our innovation ecosystem
2. Book a meeting to discuss your technology and situation
3. Determine where your technology fits within the needs of the Government
4. Find a SBIR or STTR opportunity
5. Submit your proposal
 - May qualify for proposal cost reimbursement from NC Commerce



Join us for our Friday
Coffee Call

Visit the DEFTECH Website at
<https://deftech.nc.gov/>



Join our Community

1. Stay up to speed on all the latest information
2. Connect with the DEFETCH team
3. Connect with others in the NC innovation ecosystem



NC DEFTECH
LinkedIn page



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Book a meeting
with TJ



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