SBIR Success Stories

2018 Small Business Training Workshop
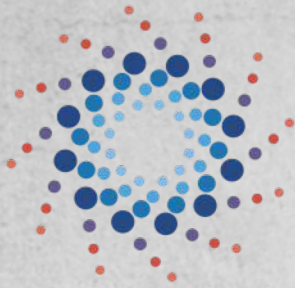
April 26, 2018

David Sikora
Acting SBIR/STTR Program Administrator
Office of Small Business Programs
Department of Defense

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Leveraging America's Seed Fund

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Gated Process - Three Phases

Phase I
Concept Development
6 months – 1 year
~ $150,000

Phase II
Prototype Development
24 months
~ $1,000,000

Phase III
Commercialization
No SBIR funding

Solicitation to Award

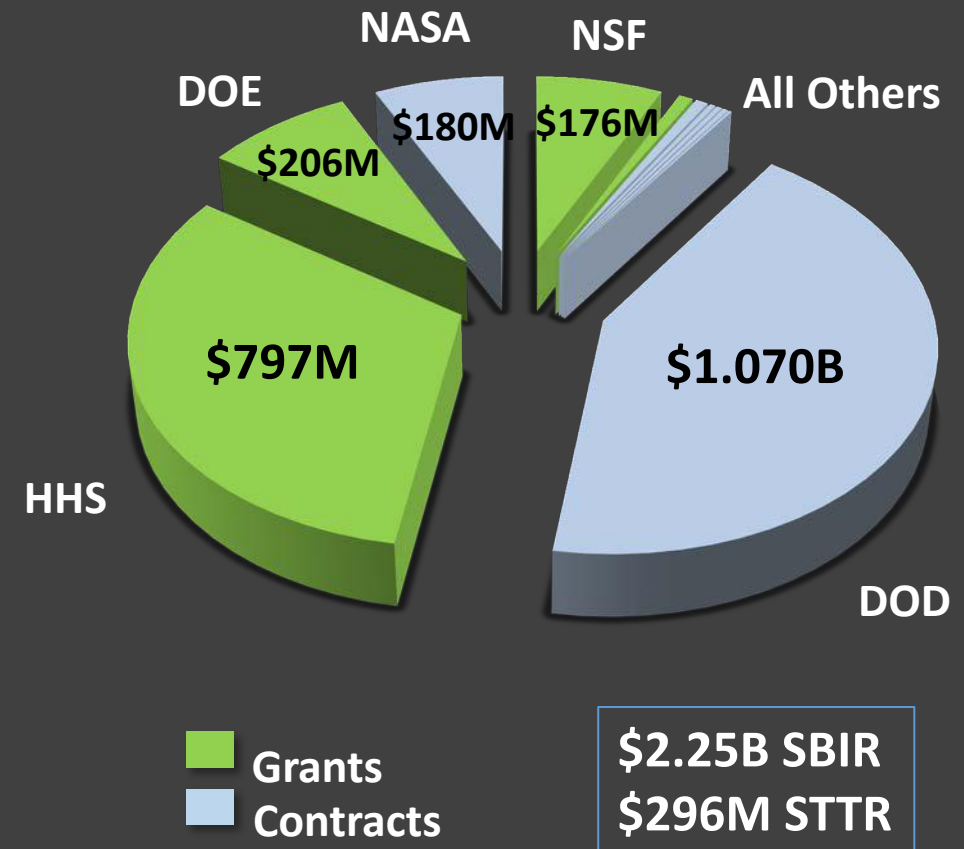**Find Solicitation** → **Proposal Submission** → **Evaluation** → **Award Phase I**

Program Goals

→ Meet Federal **research and development needs**

→ Increase private-sector **commercialization** of innovation derived from Federal research and development funding

→ Stimulate technological **innovation**

→ Foster and encourage **participation** in innovation and entrepreneurship by socially and economically disadvantaged persons

→ Foster **technology transfer** through cooperative R&D between small businesses and research institutions (STTR)

SBIR/STTR Budget by Agency, FY2015

Agencies with SBIR/STTR Programs	Budget
Department of Defense (DOD)	$ 1.070 B
Department of Health and Human Services (HHS), including the National Institutes of Health (NIH)*	$797.0 M
Department of Energy (DOE), including Advanced Research Projects Agency – Energy (ARPA-E)	$206.1M
National Aeronautics and Space Administration (NASA)	$ 180.1 M
National Science Foundation (NSF)	$176.0 M

Agencies with SBIR Programs	Budget
U.S. Department of Agriculture (USDA)	$20.3M
Department of Homeland Security (DHS): Science and Technology Directorate (S&T) and Domestic Nuclear Detection Office (DNDO)	$17.7 M
Department of Commerce: National Oceanic and Atmospheric Administration (NOAA) and National Institute of Standards and Technology (NIST)*	$8.4M
Department of Transportation (DOT)	$7.9 M
Department of Education (ED)	$7.5 M
Environmental Protection Agency (EPA)	$4.2 M

DOE $206M · NASA $180M · NSF $176M · All Others · HHS $797M · DOD $1.070B

Grants
Contracts

$2.25B SBIR
$296M STTR

What does an SBIR/STTR firm look like?

- Company must be for profit, U.S. owned and operated, and under 500 people

- Work must be done in the U.S.

- Focus is on performing R&D – Not purchasing equipment, commercializing a technology that has already been developed, or one that has very low risk and only needs capital

SBIR · STTR
America's Seed Fund

Phase III - Commercialization

Justification: Commercializing work that **DERIVES FROM, EXTENDS OR COMPLETES** an effort performed under prior SBIR/STTR agreements, including:

- Activity in the military or private sector
- SBIR/STTR-derived products or services
- Continuation of R&D

Participation

- SBIR/STTR funds **CANNOT** be used for Phase III contracts
- Only businesses that were awarded Phase I or II are eligible to participate in Phase III

Derives from means that the requirement or contract has its origins in or traces to the previous SBIR efforts of an SBIR firm.

Extends means that the requirement or contract applies or advances prior SBIR efforts to a different application, or uses the prior SBIR efforts in a new way.

Completes means that the requirement or contract involves commercialization or productizing of the prior SBIR

Phase III - Commercialization

- No limit on number, award amount, or duration of Phase III contracts

- May be awarded as Direct Award (we used to say sole source)

- Small business size standards do not apply (a large firm can purchase the SBIR or STTR firm and still receive Phase IIIs for the SBIR firm's technologies because of this exemption from the size standards)

- Subcontracts can be Phase IIIs and Phase IIIs can be subcontracts.
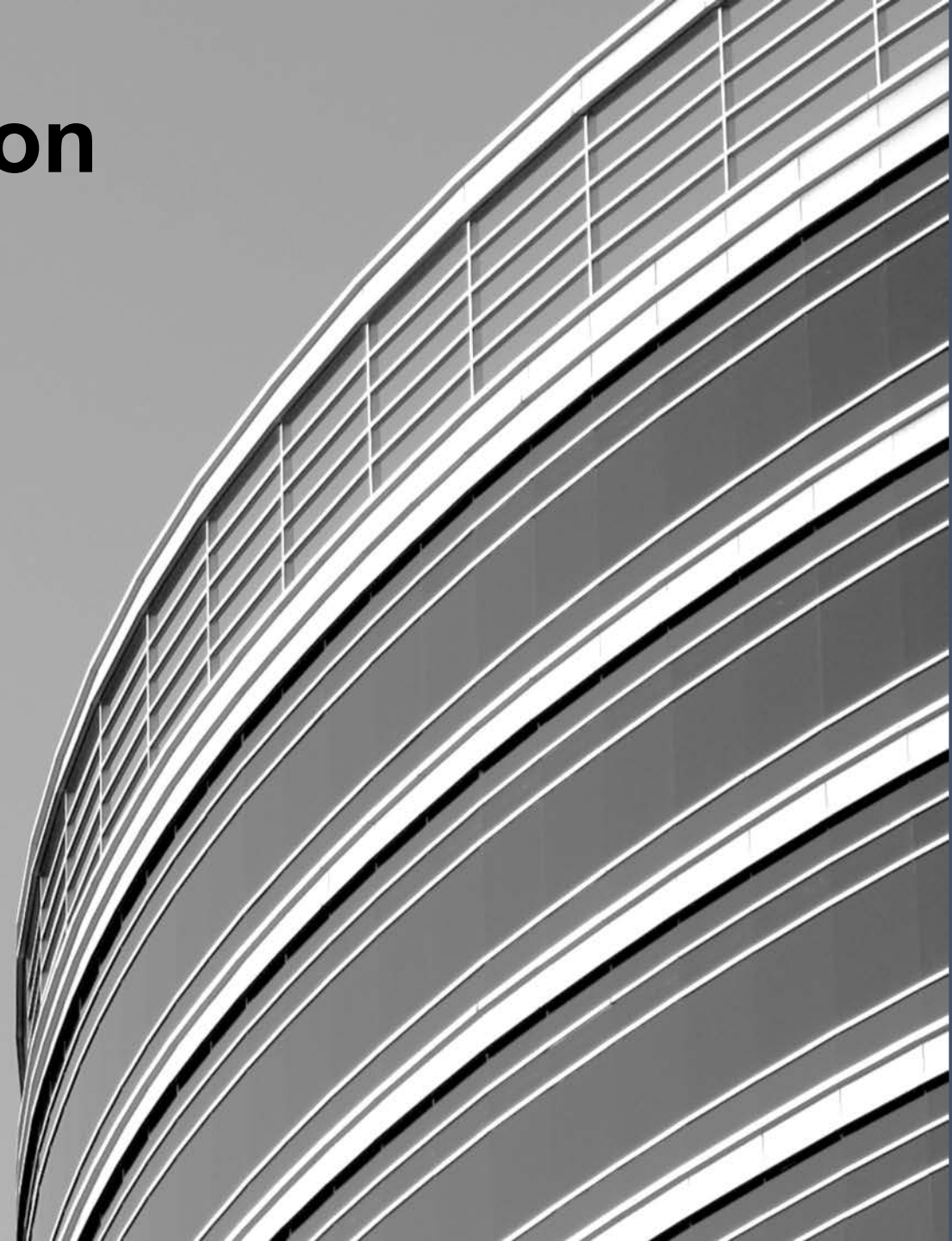
Scenario – Phase III Contracts

Dan: Contracting Officer
Susie: Program Manager

Susie has been working with a small business to develop an encoded 10GHz transmit-receive module for a tactical radio used in battlefield deployment. The small business is near completion of a second Phase II SBIR for development of the prototype module which has passed field testing and is considered to be at technology readiness level (TRL) 8. Susie visits Dan because she wants to issue a follow on award to this company using non-SBIR funding to integrate 20 transmit-receive modules into fielded tactical radios improving functionality.
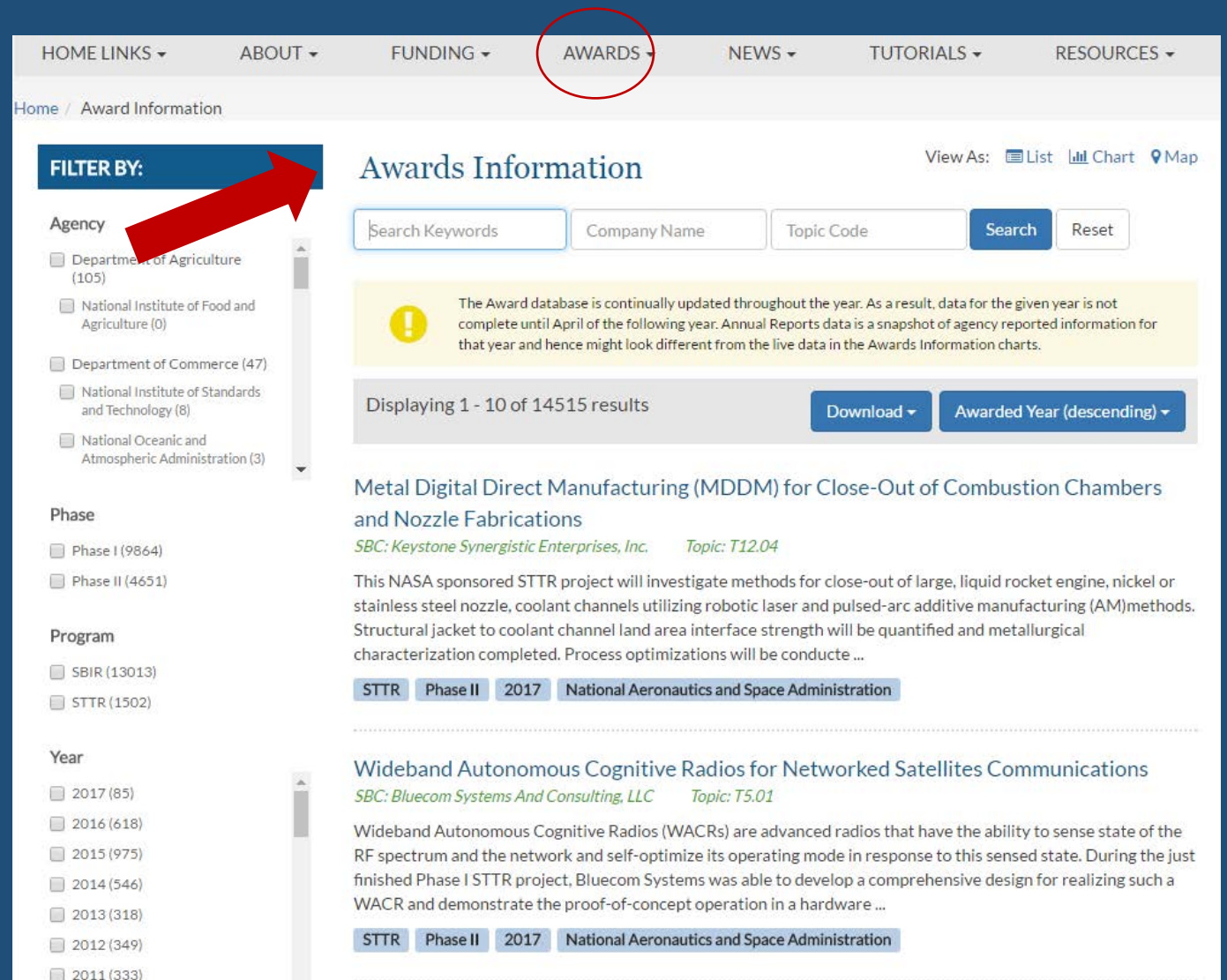
Can this be done without a competition and why?

Yes! The work "**derives from**, **extends, or completes**" prior SBIR Phase I or Phase II efforts" and is funded with non-SBIR dollars.

This makes the award a Phase III and competition for the award has already been satisfied.

Award Searches

Keyword searches
→ **Identify successful firms**
→ **Identify agency investments in technology areas**

www.sbir.gov/sbirsearch/award/all

API

Searches
→ **Solicitations (keywords, agencies, open, or closed)**
→ **Awards (keywords, agencies, companies, research institution, or year)**
→ **Companies (keywords, name, or DUNS)**

www.sbir.gov/api

SBIR.gov - Solicitations

Keywords Search
- **Description:** This Method outputs Solicitations (from SBIR.gov database) that contain the Keyword entered in their Topic description.
- **Example:** https://www.sbir.gov/api/solicitations.xml?keyword=some text without quotes
- **Return Types:** XML, JSON
- **Fields returned from the API** = title, link, description, agency, close_date, status

Agency Search
- **Description:** This Method outputs Solicitations (from SBIR.gov database) from an Agency matching the Agency name entered.
- **Example:** https://www.sbir.gov/api/solicitations.xml?keyword=mars&agency=DOE
- **Valid values for the agency field:**
  - DOD = Dept. of Defense
  - HHS = Dept. of Health and Human Services
  - NASA = National Aeronautics and Space Administration
  - NSF = National Science Foundation
  - DOE = Dept. of Energy
  - USDA = United States Dept. of Agriculture
  - EPA = Environmental Protection Agency
  - DOC = Dept. of Commerce
  - ED = Dept. of Education
  - DOT = Dept. of Transportation
  - DHS = Dept. of Homeland Security
- **Return Types:** XML, JSON
- **Fields returned from the API** = title, link, description, agency, close_date, status

Download all Open
- **Description:** This Method outputs all Open Solicitations recorded in the SBIR.gov database
- **Example:** https://www.sbir.gov/api/solicitations.xml?keyword=mars&agency=DOE&open=1
- **Return Types:** XML, JSON
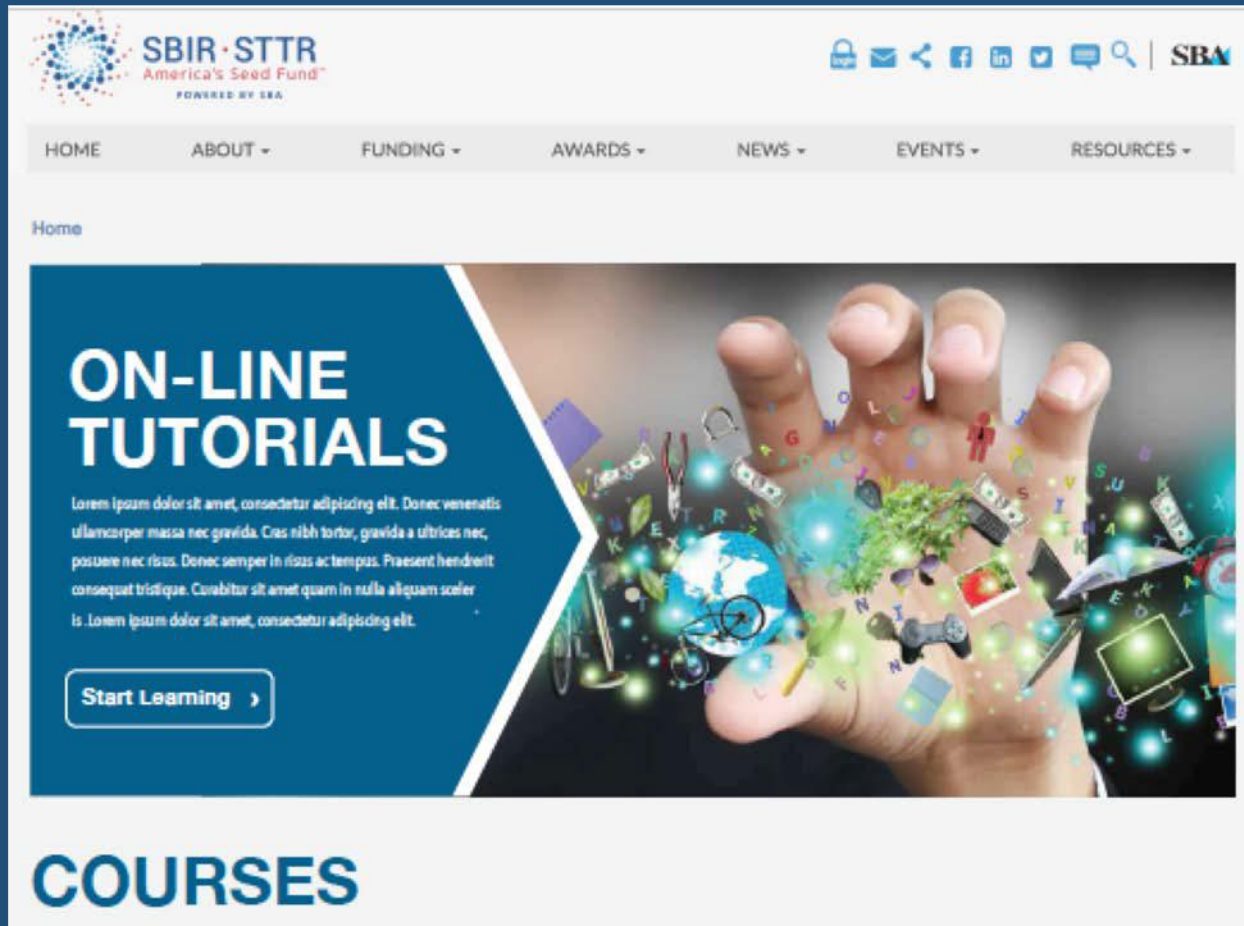- **Fields returned from the API** = title, link, description, agency, close_date, status

On-line Tutorials

→ Open to everyone
→ Tutorials cover Agency Introductions, Program Basics, Proposals, Accounting, and more
→ 55 Modules

www.sbir.gov/tutorials

Train the Trainer – Learning Management System

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1. INTRODUCTION
2. PROGRAM BASICS
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7. PROPOSAL PREPARATION
8. FINDING PARTNERS
9. ACCOUNTING AND FINANCE
10. DATA RIGHTS
11. CYBERSECURITY
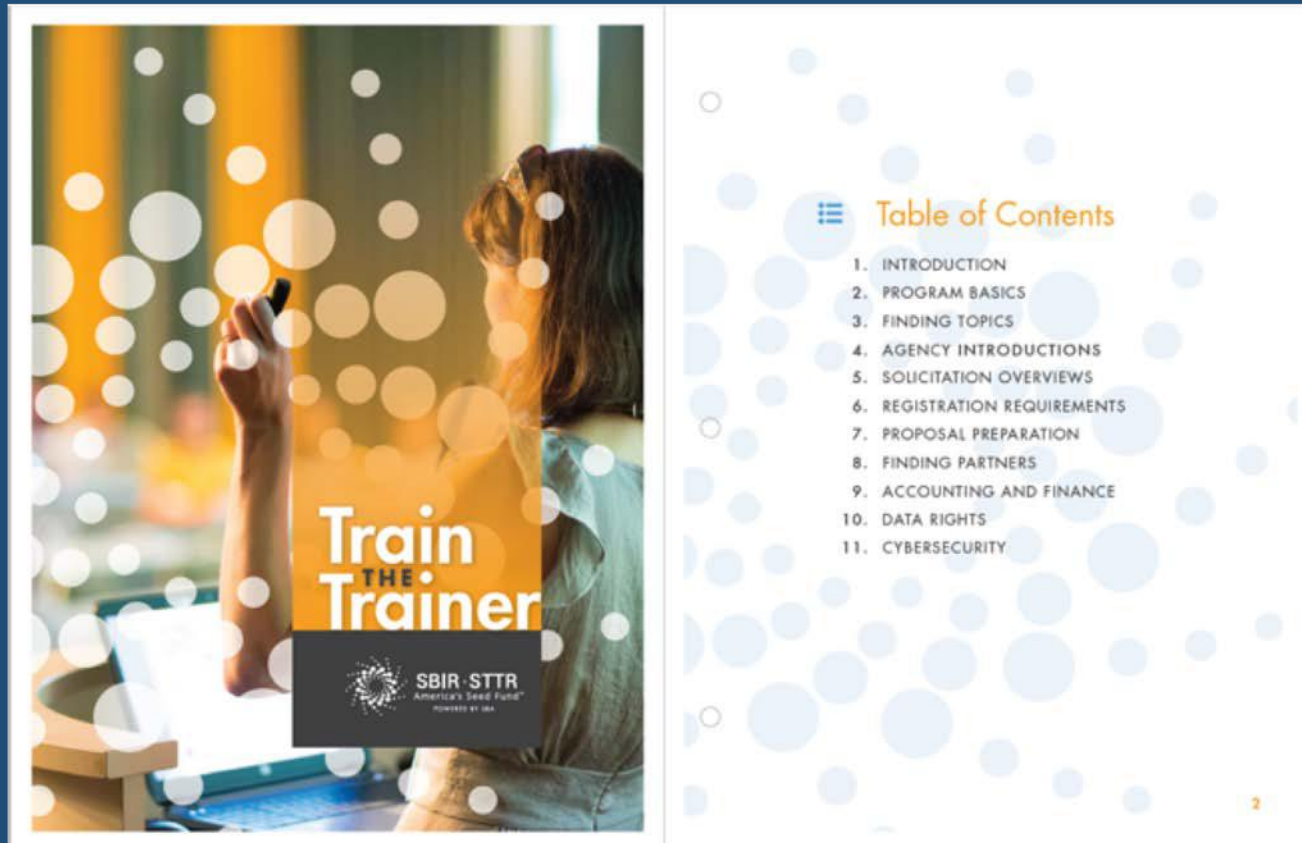
Target Audience:
→ SBDCs
→ PTACs
→ Accelerators
→ Minimum knowledge of SBIR/STTR Programs

*Next series estimated to start Jan. 2018

DSR
Advanced Information Systems
Software Migration
Legacy Trainer

Sail

PROGENY
Audio Signals
Active Emissions
IA
AN/WLY-1 AI&R

Trident Systems
Mobile Computing for
Submarine Applications

Planning Systems
GCCS Development & COTS
Applications

Noesis
High Performance Brushes
Technology

Darlington
SCS C4I & IM&M Technology
Combined Operations Wide
Area Network

TCN
OA Concepts

MIKEL
Non-Collinear Wave Front
Curvature Ranging

Control Module

Chesapeake Science
Acoustic Interface
Design & Fabrication
Towed Arrays

Stern/Propulsion

MSI
Array Improvement

Pressure Hull

Auxiliary Machinery Room

TKC
Innovative Modeling

PROGENY
Tools For VME
Interactive Acoustic
Analysis Process

Non-Pressure Hull

Weapons Stowage & Handling

Compudrive
Electromechanical Actuator
and COMT

PROGENY
Multi Tube Weapon
Simulator

3 Phoenix
Real Time Data Fission

PEO SUB: >$2B in Phase III contracts!

VIRGINIA CLASS SUBMARINE
BATTLESPACE DOMINANCE

VIRGINIA class submarine

Evolution of E.M.I.L.Y.

Emergency Integrated Lifesaving Lanyard

A Navy SBIR/STTR Success

The Start (2001)
Marine Mammal Detection & Mitigation

Realization (Today)

The Leveraging (Silver Fox UAV)

- **Video Communications**
- **Threat Warning System**
- **Sensor Classification**

Refugee Rescue in Greece

Combat Tested 2007

Swift Water Rescue in USA

Worldwide Use by Lifeguards

| $5M (STTR) | $7M (SBIR) | $4M in Phase 3 Funds | $6M+ Commercial Sales |

What's Unique About DoD

Focused on the WARFIGHTER

Largest SBIR program in the Federal Government

DoD is both an investor and a customer

Sole-sourcing allowed for follow-on awards

Issues contracts not grants

Retain data rights for 5 years

Does not allow majority-owned by multiple VCOCs, equity, or hedge funds to participate

Path To Success

Starting with:

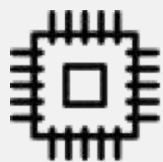| 600+	3	7,000
topics	solicitations	Phase I proposals

Resulting in:

1,500	950	>$31B
Phase I awards	Phase II awards	in commercialized products & services

Technology Areas

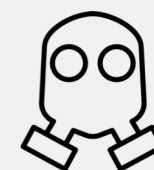Advanced Electronics

Air Platforms

Ground & Sea Platforms

Biomedical (ASBREM)

Information Systems

Chem Bio

Human Systems

Materials & Manufacturing Processes

Sensors

Space Platforms

Weapons

Nuclear

Battlespace

Participating DoD Components

Army

Navy

Air Force

Missile Defense Agency (MDA)

Defense Threat Reduction Agency (DTRA)

Defense Microelectronics Activity (DMEA)

Defense Advanced Research Projects Agency (DARPA)

Defense Health Agency (DHA)

Chemical and Biological Defense (CBD)

Special Operations Command (SOCOM)

Defense Logistics Agency (DLA)

National Geospatial Intelligence Agency (NGA)

Solicitation Schedule

A DoD Agency-wide announcement includes:

- DoD Instructions

- Service/Component Unique Instructions

- Topics

- Not all Components participate in each solicitation.
- Multiple solicitations provide opportunities to participate throughout the fiscal year.

SBIR 18.2
STTR 18.B

Pre-Release
4/20/18

Open
5/22/18

Close
6/20/18

SBIR 18.3
STTR 18.C

Pre-Release
8/24/18

Open
9/24/18

Close
10/24/18

For More Information…

For additional information please visit **http://sbir.defensebusiness.org**

To subscribe to our ListServ, email **sbiroutreach@bytecubed.com**

Questions? Contact us!

📞 1-800-348-0787

✉️ sbirhelp@bytecubed.com

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NAVAIR SBIR Success Stories

26 APR 18

Presented To:

Small Business Training Week 2018

Presented By:

Donna Attick, NAVAIR SBIR / STTR Program Manager

Evolution of a Navy SBIR/STTR Technology

THE START

THE LEVERAGING

TODAY

TOMORROW

2001	2007	2017	2018

The Start
Marine Mammal Detection and Mitigation

- Automatic Detection
- Low Cost Sensors
- Mitigation Decision Aids

The Leveraging
Silver Fox UAV Combat Tested 2007

- Video Communications
- Threat Warning System
- Sensor Classification

Today
Emergency Integrated Lifesaving Lanyard

- Worldwide use by lifeguards
- Rescue in USA
- Swift water rescue
- Used in Hurricane Harvey

Tomorrow
Mobile Gateway Buoy (MGB) Operationally Tested 2017

- Communications
- Video Sensors
- Sonar Sensors
- UUV data relay
- Bathometric mapping

$5M STTR	$7M SBIR	$4.2M in Government Phase III Funds/$6M+ +Commercial Sales