



# Small Business Opportunities with DARPA

# SBPO

## Small Business Programs Office

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<http://www.darpa.mil/work-with-us/for-small-businesses>

## Breakthrough Technologies and Capabilities for National Security

*Military Application*

**Communications/  
Networking**



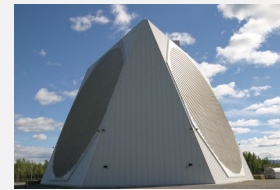
1960s

**Stealth**



1970s

**Radar Arrays**



1990s

**Precision Guidance & Navigation**



**UAVs**



**IR Night Vision**

2000s

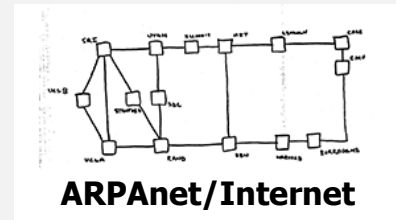
**Hypersonics & LEO  
Satellites**



2010s

2020s

*Commercial Transition*

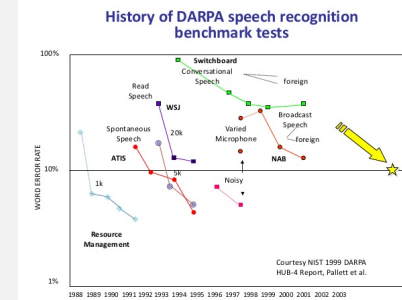


1960s



**Microelectronics:** VLSI, CAD, manufacturing, IR, RF, MEMS

**Information Technology:** timesharing, client/server, graphics, GUI, RISC, speech recognition



**Revolutionizing  
Prosthetics**



**Materials Science:** semiconductors, superalloys, carbon fibers, composites, thermoelectrics, ceramics

## DARPA's role: Pivotal early investments that change what's possible



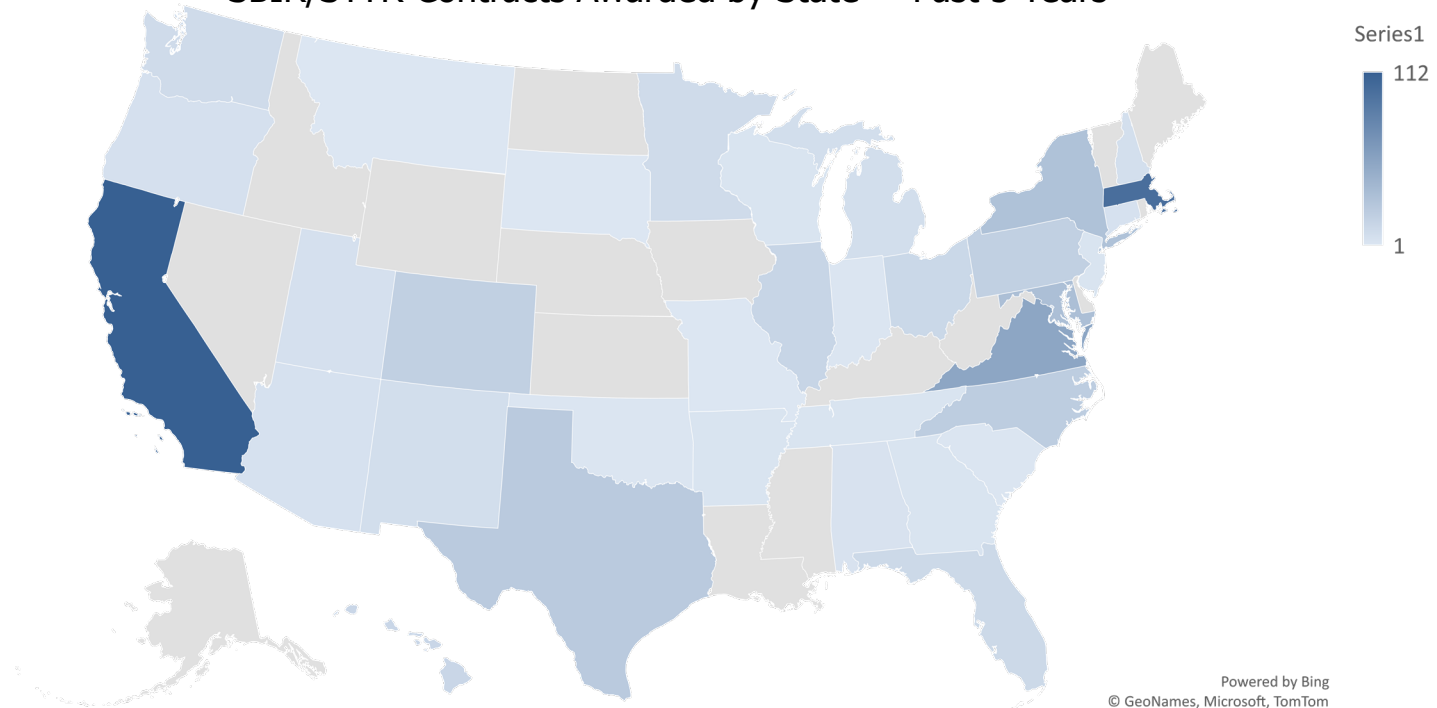
## Small Business Activity: "By The Numbers" (\$ in millions)

Fiscal Year	Total Obligations	Total Small Business Dollars	DARPA Small Business Goaling Report %*	Total SBIR/STTR	SBIR/STTR Role in Overall Engagement w/ SB (As a % of Total SB Dollars)*
<b>FY21</b>	<b>\$2,203.6</b>	<b>\$598</b>	<b>27%</b>	<b>\$111.7</b>	<b>19%</b>
<b>FY22</b>	<b>\$2,262.4</b>	<b>\$650</b>	<b>29%</b>	<b>\$153</b>	<b>24%</b>

\*the percentages/totals are accurate as of 31 Oct 22

- The SBIR/STTR program is funded through an allocation from extramural RDT&E funding realigned to a SBIR & STTR program element for execution.
- The Federal Procurement Data System (FPDS) does not capture business size standards for non-Federal Acquisition Regulation (FAR) based actions. Therefore, Other Transactions (OTs) and grants/cooperative agreements are not included in these figures.

### SBIR/STTR Contracts Awarded by State – Past 5 Years



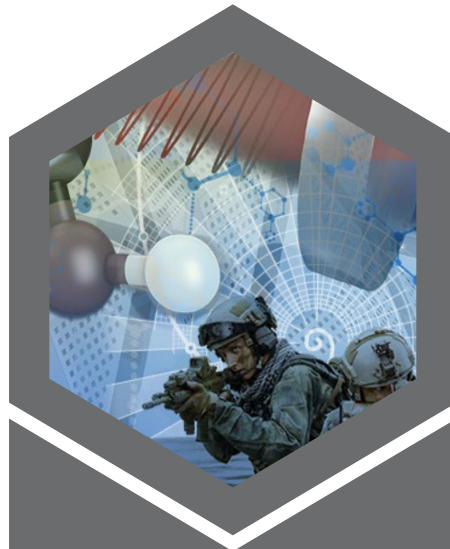
Diversifying outreach to better align with small businesses focused on innovative technology breakthrough areas aligned with DARPA Tech plans and needs





## Biological Technologies Office

- Threat detection and characterization
- Rapid, scalable protection and countermeasures
- Warfighter overmatch
- Non-traditional platforms and capabilities



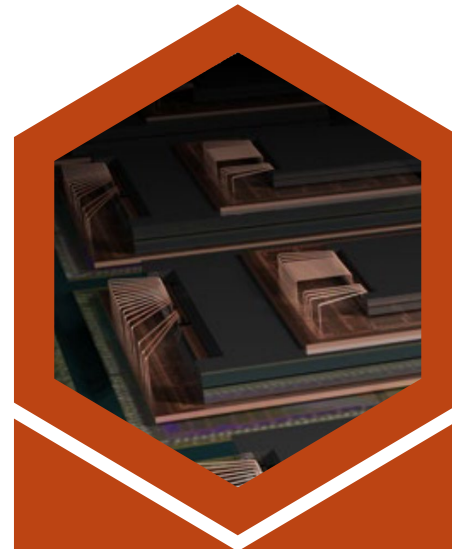
## Defense Sciences Office

- Novel materials and structures
- Sensing and measurement
- Computation and processing
- Operations enablement
- Collective intelligence
- Global Change



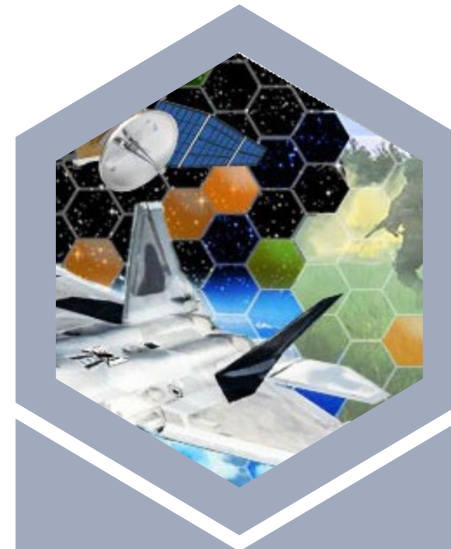
## Information Innovation Office

- Proficient AI
- Advantage in cyber operations
- Confidence in the information domain
- Resilient, adaptable, and secure systems



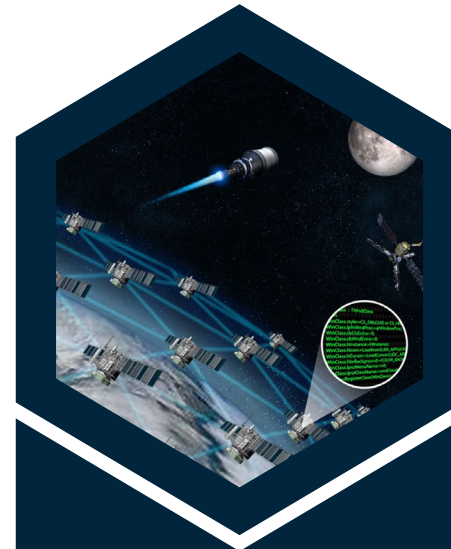
## Microsystems Technology Office

- Local processing
- Spectrum dominance
- Microsystems manufacture
- Disruptive microsystems



## Strategic Technology Office

- Advanced sensing and effects
- Autonomous system of systems
- Command, control, and communications



## Tactical Technology Office

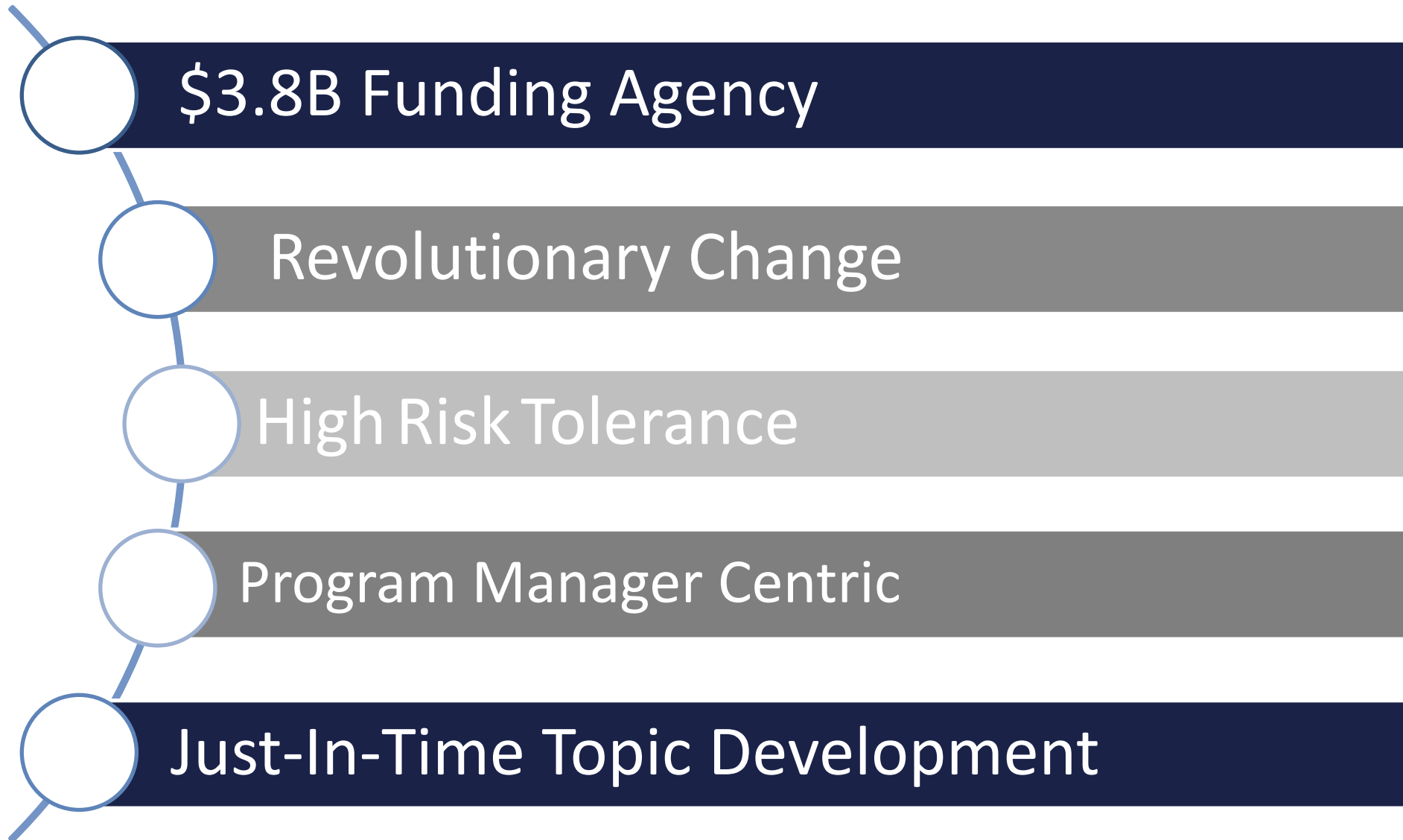
- Tactical systems
- Platforms, systems, and technologies that enable new warfighting constructs
- Reimagination of missions across maritime, ground, air, and space domains



# Characteristics of DARPA

SBIR·STTR

POWERED BY INNOVATORS  
MOVING TECHNOLOGY FORWARD



**SBIR Program**

**3.2% of all  
extramural RDT&E**

**FY23 - \$111.2M**

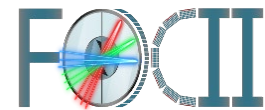
**STTR Program**

**.45% of all  
extramural RDT&E**

**FY23 – \$15.6M**

## Programs

- Represent most of DARPA's funding opportunities
- Open to all capable sources
- Proposals solicited through specific program BAAs
- Often multi-year, multi-disciplinary efforts
- Technology development to move from "possibility" to "capability"



## Challenges

- Compete on unique DARPA R&D problems
- Tend to include phases with culminating events where winners win monetary or other prizes
- May result in a prize with up to a \$10M fair market value



## Seedlings, SBIR/STTR, Explorations

- Open to all capable sources
- Smaller, shorter projects
- From "disbelief" to "doubt"
- Inspire new program ideas

### Seedlings

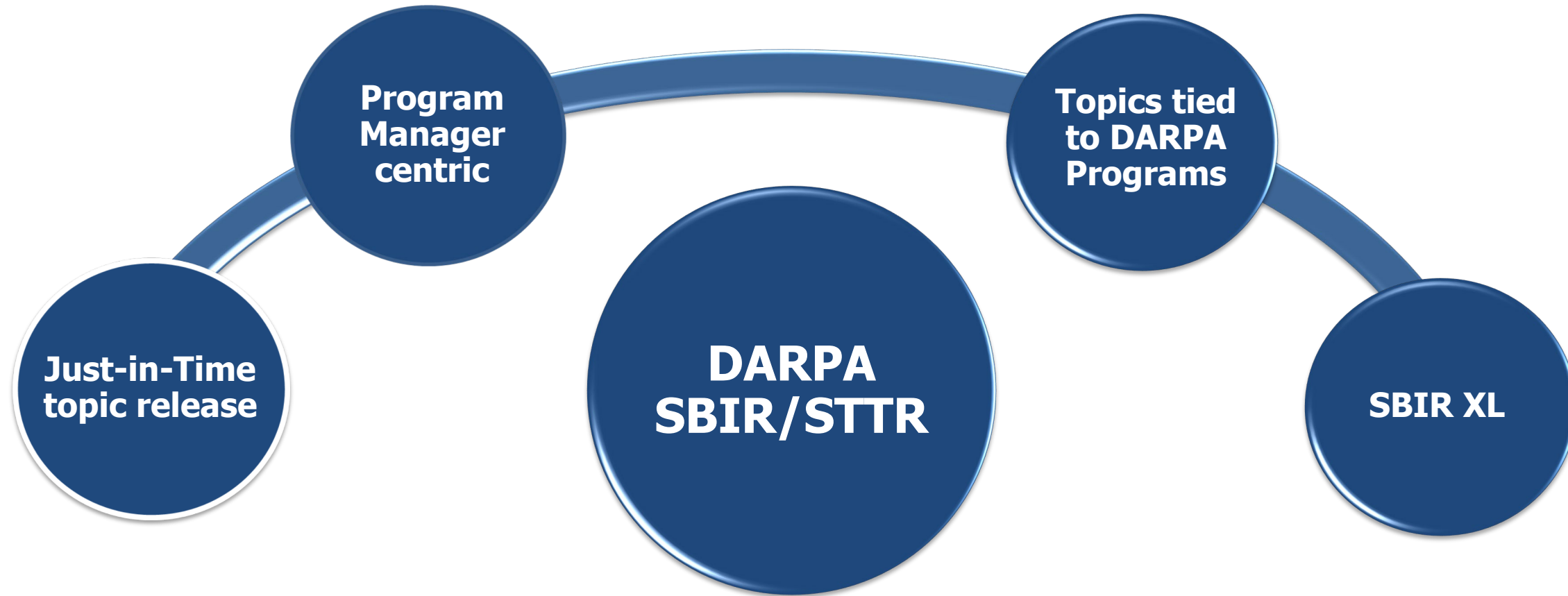
*Submitted to each technical office*

### SBIR/STTR

*darpa.mil/work-with-us/for-small-businesses/participate-sbir-sttr-program*

### Explorations





**DARPA's SBIR program is unique and offers greater flexibility with diverse transition opportunities**





# SBIR/STTR Program Structure

Phase	SBA SBIR/STTR Program	DARPA SBIR/STTR Program
Phase I (optional)	\$295,924 cap (12 months) Feasibility Study	\$275,000 (~10 months) Feasibility Study
Phase II*	\$1,972,828 cap (24-36 months) Adoptions/Co-funds Continued Research and Prototype	\$1,800,000 (24-36 months) Adoptions/Co-funds Continued Research and Prototype
Phase II Enhancement	\$1:\$1 Match (up to 12 months)	\$1:\$1 Match (up to 12 months) Up to \$500K
Phase III	No time limit No SBIR funds	No time limit No SBIR funds

\*Phase II values can exceed these numbers if funds are available and by using a simple waiver process.

Note: There is no cap on the amount of non-SBIR/STTR funding that can be applied to a SBIR/STTR.



## Phase I

Traditional SBIR/STTR process which begins with a Phase I feasibility study

## Direct to Phase II\*

Allows the small business to skip Phase I and go directly to Phase II if they can demonstrate technical feasibility

## Sequential or Concurrent Phase II

A small business is eligible to receive two Phase II awards under the same topic

# DARPA SBIR/STTR Funding Options

## Adoption

When a SBIR/STTR project is transferred from one DoD component or outside agency to another

## Enhancement

1:1 matching program up to \$500K of SBIR/STTR funding when non-SBIR/STTR funds have been committed

## Co-Fund

When a SBIR/STTR project is supplemented with SBIR/STTR funds from another DoD component or outside agency

## SBIR XL Pilot\*

Increases opportunities for DARPA-funded technology by reimagining SBIRs to transform ideas into successful small businesses that scale.

\*SBIR only (no STTR)



The SBIR XL Pilot aims to increase opportunities for DARPA funded technology by reimagining SBIRs to transform ideas into successful small businesses that scale.

## SBIR XL Pilot

**\$4M Award ceiling**

**Multiple awards per topic**

**Shortened proposal package which includes white paper & slide deck**

**Optional \$500K Enhancement**

**Robust Transition and Commercialization milestones**



The TCSP works with small businesses to ensure that DARPA SBIR/STTR technology investments have impact within the DoD Acquisition Chain and U.S. Technology Community.

## TCSP helps performers:

Bring critical technologies to warfighters

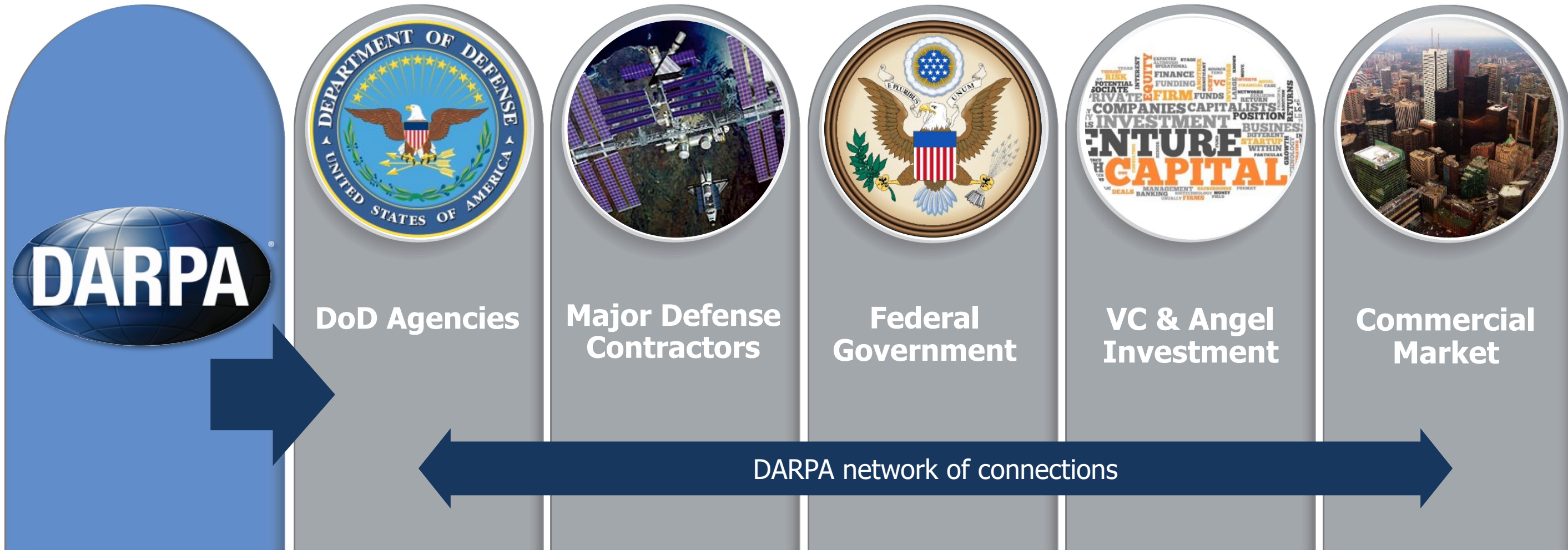
Bridge the "Valley of Death"

Strengthen the Defense Industrial Base

Reduce U.S. dependency on foreign technology

Stimulate economic and military growth

Fill U.S. technology gaps and vulnerabilities



“SBIR/STTR Technology transition is the point at which the technology is determined mature enough to move from science and technology (S&T) and into an acquisition program or useful product/service ... the Transfer of an SBIR/STTR originated technology to a DoD or non-DoD activity including the private sector and other public sectors for conversion into new products and services is considered transition.”

- OUSD (R&E) Technology Portfolio Manager, 16 July 2021





# Success Story

**SBIR·STTR**

POWERED BY INNOVATORS  
MOVING TECHNOLOGY FORWARD



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MOVING TECHNOLOGY FORWARD



# DARPA Bridges – A New DARPA Initiative

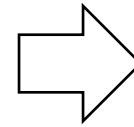
SBIR•STTR

POWERED BY INNOVATORS  
MOVING TECHNOLOGY FORWARD

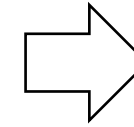
## Solicitation and Selection Process



**Solicitation Request:** participate in consortium on a technical area of interest

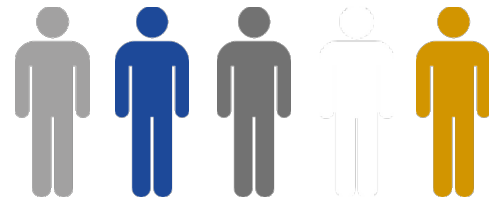


**Proposal:** submit a few pages on why you can do the work

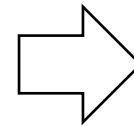


**Selected:** apply for clearance for you and your company

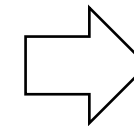
## BRIDGES Effort and Output



**Consortium:** have regular meetings with DoD at classified level



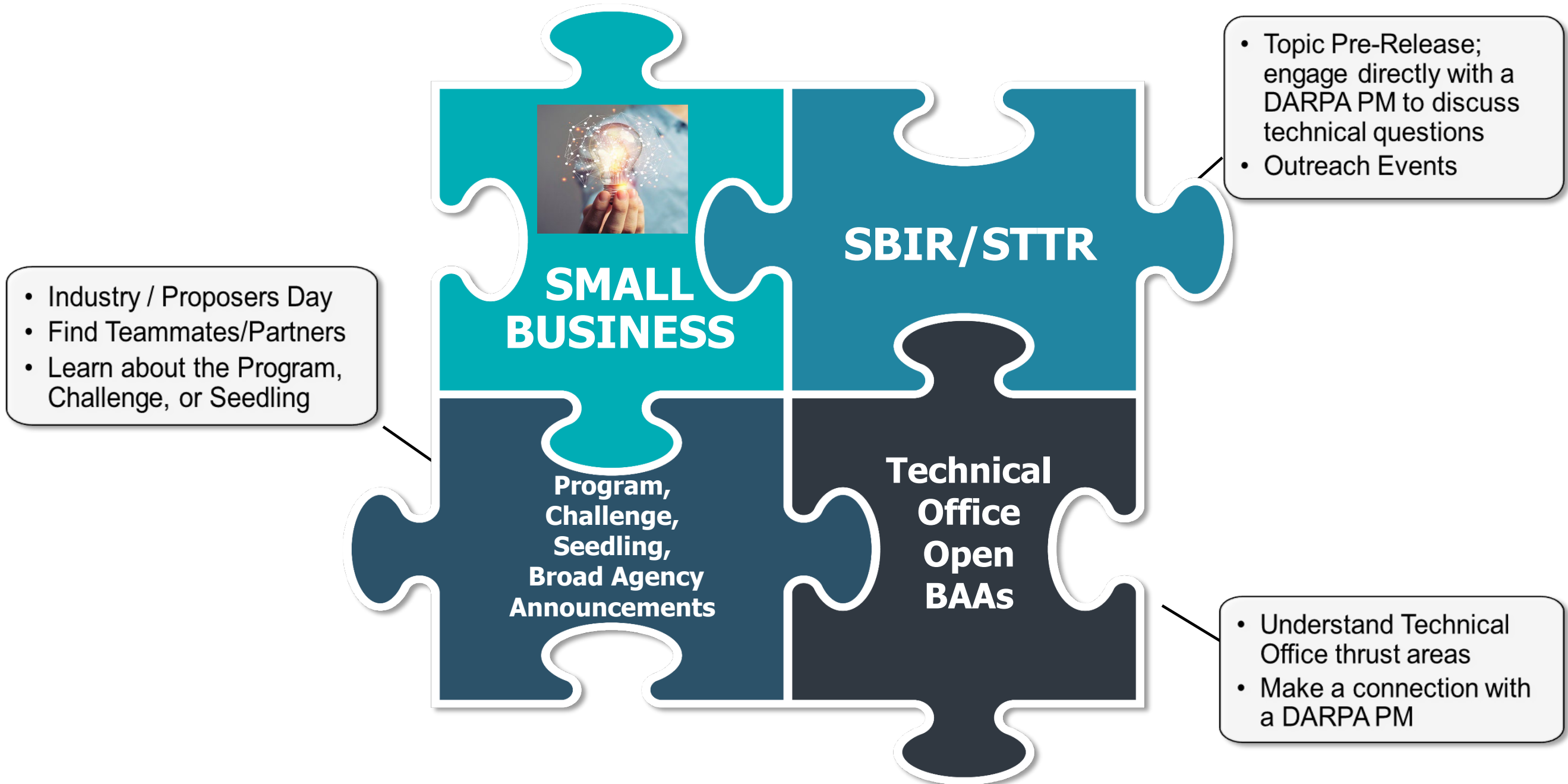
**Interact:** access classified networks at gov't partner locations



**Produce:** concept white papers, proposals, and eventually contracts

Connect with us at [BRIDGES@darpa.mil](mailto:BRIDGES@darpa.mil)

<https://www.darpa.mil/bridges>



## Begin with visiting [www.darpa.mil](http://www.darpa.mil)

Identify a DARPA Technical Office which matches your technology

Identify, (if you can) the right PM

Then, contact them (web page, email, visit)

## PM Engagement

PMs are motivated by finding new and highly disruptive problems that will be the basis of new programs

Generally, you should discuss ideas that might lead to new programs, not present your approaches for ongoing programs

PMs will be thinking about the Heilmeier catechism...so you should, too

PMs are most receptive when you do their homework for them

Listen to them!

## The Heilmeier Catechism

**H1:** What **problem** are you trying to solve?

**H2:** What are the **key technical challenges** that prevent that problem from being solved today?

**H3:** What is the **new approach** and how can it overcome these technical challenges?

**H4:** Why would solving that problem have a **large impact** (to the DoD)?

**H5:** What is the **program plan** to solve the problem?



## Do Your Research - Become familiar with the challenges and opportunities of National Security

**Convenience Comes to Federal Grants**  
Download the Grants.gov Mobile App to search and submit on the go.

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

Welcome to the DSIP (Defense SBIR/STTR Innovation Portal)!

**Action Required – Login.gov Registration**

Effective August 13, 2020: The DoD SBIR/STTR Innovation Portal (DSIP) is now integrated with Login.gov – a government-wide registration platform that provides a seamless login experience.

ALL Small Business Concerns (SBCs), are required to register for a Login.gov account and link it to your DSIP account. *If you already have a Login.gov account, simply link your existing account to DSIP.* Click the "Login/Register" button above to set up your Login.gov account. Job Aids and Help Videos are in the Learning & Support section of DSIP, [here](#).

ALL SBCs MUST complete your Login.gov setup as soon as possible to avoid delays in submitting proposals in DSIP.

**DARPA** DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

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**DARPA Offices**

DARPA's research portfolio is managed by six technical offices charged with developing breakthrough technologies and additional offices that manage special projects and the transition of DARPA-funded technologies into Department of Defense capabilities. The Agency benefits from contributions by a number of support offices as well.

- BTO** BIOLOGICAL TECHNOLOGIES OFFICE
- DSO** DEFENSE SCIENCES OFFICE
- I2O** INFORMATION INNOVATION OFFICE
- MTO** MICROSYSTEMS TECHNOLOGY OFFICE
- STO** STRATEGIC TECHNOLOGY OFFICE
- TTO** TACTICAL TECHNOLOGY OFFICE

Visit [www.grants.gov](http://www.grants.gov) or [www.sam.gov](http://www.sam.gov) to view DARPA Broad Agency Announcements (BAAs), Research Announcement (RAs), and Requests for Proposals (RFPs)

Visit [www.dodsbirsttr.mil](http://www.dodsbirsttr.mil) to view DoD SBIR and STTR Program Announcements.

Contact a DARPA Program Manager (PM) about your idea prior to submitting a white paper or proposal to gain insight into the general need for the type of effort. PMs are the key to working with DARPA.

<http://www.darpa.mil/about-us/about-darpa>

# DARPA Small Business Programs Office (SBPO)

<http://www.darpa.mil/work-with-us/for-small-businesses>

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Program Director



Small Business Support Team  
(703) 526-4170  
[sbir@darpa.mil](mailto:sbir@darpa.mil)



[www.darpa.mil](http://www.darpa.mil)



## Back-Up

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# Funding Vehicles at DARPA

Kind	Typical Award (\$M)	Typical Duration (Months)	How	Purpose	Where to Begin
Program	0.5 to >50	48	BAA <sup>1</sup>	To solve a specific national security problem	Directly engage a PM interested in this technical area
Seedling	0.2 to 1	6-12	“Office-wide” BAA <sup>2</sup>	To provide key information to allow a PM to define a Program	
Microsystem Exploration (μE)	1	18	PA <sup>3</sup>	To provide foundational work in an area of potential interest for a future Program	
SBIR/STTR	Phase 1: 0.275 Phase 2: 1-1.8	Phase 1: 10 Phase 2: 24-36	BAA <sup>4</sup>	To stimulate technological innovation lead by small businesses and research institutions	
Young Faculty Award <sup>5</sup>	0.5	24	BAA <sup>6</sup>	To develop the next generation of scientists and engineers and encourage focus on DoD and National Security issues	

<sup>1</sup> <http://www.darpa.mil/work-with-us/opportunities>

<sup>2</sup> <http://www.darpa.mil/work-with-us/office-wide-broad-agency-announcements>

<sup>3</sup> <https://beta.sam.gov/opp/765d3278dd11489c9ad662a414cc5400/view>

<sup>4</sup> <https://www.darpa.mil/work-with-us/for-small-businesses/participate-sbir-sttr-program>

<sup>5</sup> Available to junior faculty positions in academia and equivalent positions at non-profit research institutions

<sup>6</sup> <https://www.darpa.mil/work-with-us/for-universities/young-faculty-award>