Funding Cyber Innovations with SBIR Grants and Contracts

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This program is funded in part through a cooperative agreement with the U.S. Small Business Administration, the State of Delaware, & the University of Delaware.

Purpose of SBIR · STTR America's Seed Fund

SBIR: Small Business Innovation Research	STTR: Small Business Technology Transfer

- Meet **Federal research and development needs**
- Increase private-sector **commercialization** of innovations derived from Federal research and development funding
- Stimulate technological **innovation**
- Foster and encourage participation in innovation and entrepreneurship by **socially and economically disadvantaged persons**

***Not an alternative source of funding basic research, but a compelling source of funds when basic/applied research leads to technologies based products with strong commercial potential**

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The SBIR & STTR Programs

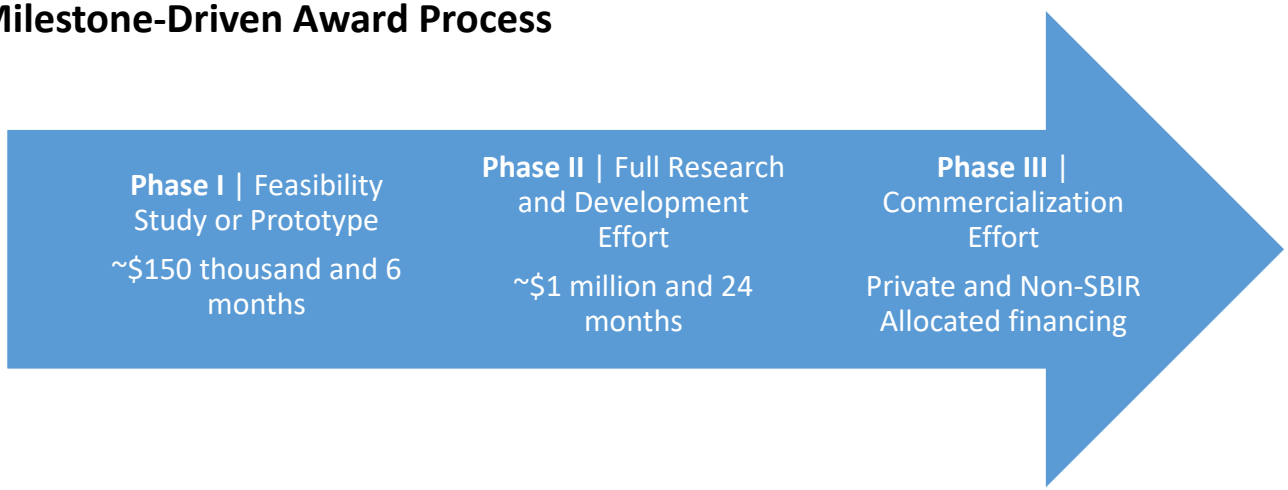
Small Business Innovation Research (SBIR)

- A set-aside program for small business to engage in Federal R&D – with potential for commercialization

Small Business Technology Transfer (STTR)

- A sister set-aside program to facilitate cooperative R&D between small business concerns and U.S. research institutions – with potential for commercialization.

Milestone-Driven Award Process



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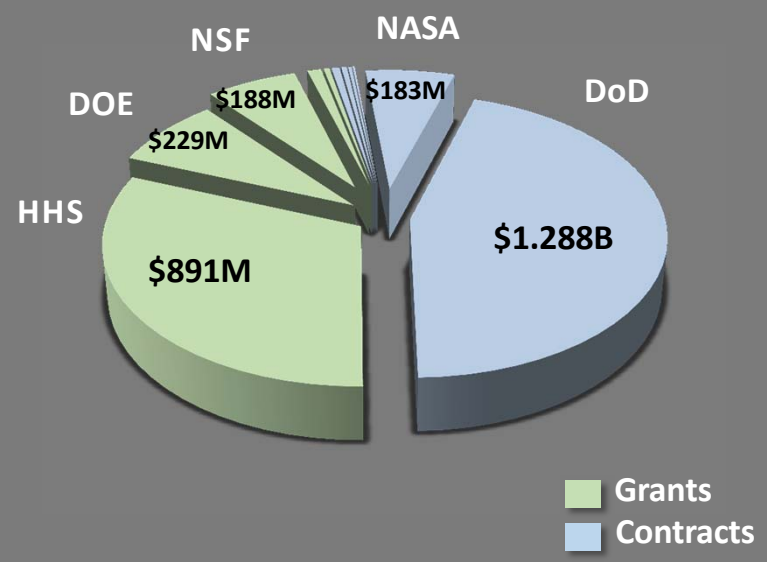
SBIR/STTR Budget by Agency: FY2016

Agencies	Budget
Department of Defense (DoD)*	$1.28 B
Department of Health and Human Services (HHS)**, including the National Institutes of Health (NIH)	$891.0 M
Department of Energy (DOE), including Advanced Research Projects Agency – Energy (ARPA-E)	$228.6 M
National Science Foundation (NSF)	$187.7 M
National Aeronautics and Space Administration (NASA)	$183.4 M
U.S. Department of Agriculture (USDA)	$28.8 M
Department of Homeland Security (DHS)	$17.0 M
Department of Transportation (DOT)	$11.6 M
Department of Commerce: National Oceanic and Atmospheric Administration (NOAA)	$9.2 M
Department of Education (ED)	$7.5 M
Environmental Protection Agency (EPA)	$4.9 M
Department of Commerce: National Institute of Standards and Technology (NIST)	$3.3 M

*Budgeted amount; other Agencies Obligated Amount
** Provides grants and contracts



SBIR: $2.50 Billion
STTR: $361 Million

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Pros and Cons of SBIR/STTR Funding

Positives	Negatives
Fund high risk projects	Limited funding per project
Cover most areas of technology	National competition
$2+ billion awarded annually with $750 million in biomedical projects	Articulation of market fit and commercialization capability
Non-dilutive	Long timelines
Company retains IP	Requires skill in proposal writing
Multiple awards possible—even for the same product	

Agency SBIR Differences

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Contracting Agencies

- Agency establishes plans, protocols, requirements
- Highly focused topics
- Procurement capability
- More fiscal requirements

DOD DHS
HHS/NIH NASA
EPA
DOT DOC

Granting Agencies

- Investigator initiates approach
- Less-specified topics
- Assistance mechanism
- More flexibility

HHS/NIH NSF
USDA
DOE DoED

Agency Differences

- Receipt dates, number & timing of solicitations
- Type or award (grant or contract)
- Proposal review process
- R&D topic areas
- $ of award (both Phase I and II)
- Proposal success rates
- Profit or fee allowed
- Gap funding provided
- Payment types & schedules

Is SBIR/STTR Right For My Company?

- Are my company, facilities, and PI qualified?
- Is the problem we're addressing important?
- Does it have a viable commercial opportunity?
  - Has a market been identified?
  - Has competitive analysis been done?
  - What additional resources will be required to achieve commercialization?
- Is my proposed solution technically innovative? Revolutionary vs. evolutionary?
- Is it of interest to one or more agencies?
- Have I confirmed the agency interest? What about customer or industry interest?
- Do I understand the agency's procedures?

What Does a SBIR/STTR firm or Entrepreneur Look Like?

- Doesn't have to have yet formed the company
- Company must be for profit, US owned and operated, and <500 people
  - Have investors? Note that no single investor can own & control more than 50% of the company
- Typically they are primarily a R&D organization both in what they do and their staff.
- R&D performed in US
- Focus is on performing R&D – Not for purchasing equipment, commercializing a technology that has already been developed, or one that has very low risk and only needs capital
- SMB has a combination of technical and business expertise

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SMALL BUSINESS TECHNOLOGY TRANSFER PROGRAM (STTR)

- Modeled after SBIR
- Small company must team with Federal Lab, University or other non-profit R&D entity
- Only 5 Federal agencies participating

  DOD
  DOE
  DHHS/NIH
  NSF
  NASA

- PI can be at small business or the Fed Lab/University, except at NSF
- Fed Lab/University can do up to 60% of the R&D
- Company & its university partner must sign IP agreement
- Budget and Certification of Research Institution form required

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SBIR vs. STTR: Who Does the Work?

- *Applicant is always the small business
- Subcontract percentages
  - SBIR: no more than 33% in a Phase 1 and 50% in a Phase II (company must do ≥67% of the SBIR Phase I work and ≥50% of Phase II work)
  - STTR: At least 40% at small business and at least 30% at partner non-profit research institution (≥40% of the STTR Phase I and II work)
  - All in company controlled research space suitable to do the work proposed.

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Where is the PI?

- SBIR
  - Primary employment, at time of and for duration of the award, is >50% at small business
- STTR
  - Primary employment (>50%) at EITHER the SMB or non-profit research institution

Don’t Forget the Registrations

Required Registrations:

Registration Type	NIH	DoD	NSF	DoE	USDA	DoED	NASA	DoT	EPA	DoC	DHS
EIN	x	x	x	x	x	x	x	x	x	x	x
DUNS	x	x	x	x	x	x	x	x	x	x	x
SBA Company Registry	x	x	x	x	x	x	x	x	x	x	x
SAM	x	x*	x	x	x	x	x	x	x	x	x
Grants.gov	x			x	x	x					
eCommons	x										
FastLane			x								
sbir.defensebusiness.org		x									
PAMS				x							
ASAP				x							
FedConnect				x					x		
EHB							x				

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Evaluation Criteria

- Evaluation Criteria addresses
  - How well proposal addresses topic area
  - Skills of PI and Team
  - Potential to Commercialize

- Strong proposal hits all of these, provides clear details on how/why the approach address the Agencies need; Skills of the team; and describes how the firm will move the technology through the Phase's and commercialize the technology in the way that Agency wants them to

- Understanding needs of the Agency and talking to topic authors before submission is extremely valuable

- Use SBIR.Gov and local resources to help you

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Review Processes

- Internal Review
  - DoD, NASA, DHS
  - Review panels composed of Agency personnel

- External Review
  - NIH, NSF
  - Review panels consist of leading experts in field
  - Agency personnel do not score/rank applications, but manage the process

- Think of the Reviewer
  - Use headings to make it easy to find information
  - Keep it short and simple. State key points directly
  - Guide reviewers with helpful graphics
  - Edit and proof your proposal
  - Answer: Technology (how) and commercialization (so what?)
  - Avoid acronyms

Federal SBIR webpage sbir.gov

general information for those new to SBIR

Search topics across all federal agencies

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www.SBIR.Gov

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- On-Line Tutorials
- System User Guide Videos

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COURSES

01 PROGRAM BASICS

02 AGENCY INTRODUCTIONS

03 AGENCY SOLICITATIONS

04 FINDING TOPICS

05 REGISTRATION REQUIREMENTS

06 PREPARING A RESPONSIVE PROPOSAL

07 FINDING PARTNERS

08 ACCOUNTING AND FINANCE

09 SBIR DATA RIGHTS

10 CYBERSECURITY FOR SMALL BUSINESS

11 ACQUISITION BASICS

12 INTERNATIONAL TRAFFIC IN ARMS REGULATIONS (ITAR)

13 ANIMAL AND HUMAN SUBJECTS PROTECTION

14 FRAUD, WASTE, AND ABUSE

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http://www.zynsys.com/sbir/

SBIR Gateway

Your Easy to Use SBIR Information Site

SBIR Open Topic Search via SBIR.gov

Resources

- SBIR Insider Newsletter
- Solicitation Dates
- SBIR Agency Links
- SBIR Events Calendar
- SBA FAST Awardees
- About SBIR Funding
- Federal Laboratories
- SBIR Policy Directive
- SBIR Person of the Year
- Contact Us

News Items

Latest SBIR *Insider* News
Updated 8/24/16

Updated Solicitation Schedule
Updated 6/26/16

SBIR News Archive

2012 NDAA
SBIR Reauthorization Law

Search Services

Open SBIR/STTR Solicitation Topics
Via SBIR.gov

Closed SBIR/STTR Solicitation Topics
Topics often *recycled* for future solicitations

Past SBIR/STTR Awards
SBIR/STTR Awards Databases

Federal Laboratory R&D Resources
Keyword search for federal tech resources

National / Regional Conferences

18th Annual NIH National SBIR/STTR Conference
Orlando FL * November 15-17, 2016

SBIR/STTR Innovation Summit
Austin, TX November 29 - December 1, 2016

View SBIR Conference Calendar
Includes State & Regional Events

Help & Assistance Services

State & Local Assistance Services
They're here to help you

3rd Party Assistance Services
Non-Government *for profit* services

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SBIR Federal Agency Program Links

Dept. of Agriculture:
- USDA SBIR Home Page

Dept. of Commerce:
- DOC-NOAA SBIR Page
- DOC-NIST Home Page

Dept. of Defense:
- DOD SBIR Home Page
- Air Force SBIR/STTR
- Army SBIR/STTR
- Navy SBIR/STTR

- CBD - Chem-Bio Defense
- DARPA SBIR Program Home Page
- DHP - Defense Health Program
- DLA - Defense Logistics Agency
- DMEA - Defense Microelectronics Activity
- DTIC-Defense Technical Information Center
- DTRA - Defense Threat Reduction Agency
- MDA SBIR Program Home Page
- NGA - National Geospatial-Intelligence Agency
- SOCOM-Special Operations Command
- ASD (R&E)

Dept. of Education:
- ED IES
- ED OSERS / NIDDR

Dept. of Energy:
- DOE SBIR Home Page

Dept. of Health & Human Services
- NIH SBIR Home Page

Dept. of Homeland Security
- DHS S&T Directorate
- DHS DNDO

Dept. of Transportation:
- DOT SBIR Home Page

Environmental Protection Agency:
- EPA SBIR Home Page

National Aeronautics & Space Administration:
- NASA SBIR Home Page

National Science Foundation:
- NSF SBIR Home Page

Small Business Administration:
- SBA SBIR Home Page

SBIR.gov Portal
- SBIR.gov

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IF WE HAD A NICKEL FOR EVERY TIME WE SAW THESE COMMON PROPOSAL WEAKNESSES...

- Lack of clarity, consistency
- Lack of technical detail
  - Especially vague research/work plans
- No evidence of innovation or uniqueness
- No statement of the feasibility question, risk, or solution measure
- Much too much background stuff
- Fail to present a credible commercialization story
- Lack of a Commercialization strategy
- Lack of credible PI &/or team
- Lack of credible/defensible/sensible cost proposal
- Lack of attention to detail (margins, font, page count, etc.)

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Lessons Learned from the Agency Perspective

- Don't wait until the last minute to upload your application. Some agencies encourage you to begin uploading about 5 days in advance.
- Clearly articulate the specific technological hurdle/challenge you are trying to overcome and how you plan to overcome.
- Make a compelling statement of why the problem is important and why it must be solved.
- Your problem statement should grab the attention of the reader and should identify the market need.
- In the work plan, clearly articulate how you are going to do the work. NIH added they want to see preliminary research in the approach section, and DoD added you should address potential technical barriers.
- Don't assume reviewers will "figure it out." Communicate what you want them to conclude.
- Get to know the agency, its mission, people, and priorities before the solicitations come out.
- Begin seeking out letters of support early on since they take time to get. These are very important for identifying market interest/traction.
- Follow the agency-specific proposal guides. Each agency will have resources on their individual agency SBIR page.
- Make sure you have consulting agreements in place and detailed invoices that include scope of work for all consultants on your SBIR projects

Open Topic Search

FUNDING TOPICS

- OPEN
- FUTURE
- CLOSED

FILTER BY:

Agency

- Department of Agriculture (4)
  - National Institute of Food and Agriculture (4)
- Department of Commerce (0)
  - National Institute of Standards and Technology (0)
  - National Oceanic and Atmospheric Administration (0)
- Department of Defense (32)
  - Air Force (10)
  - Army (8)

Displaying 1 - 10 of 74 results

Download | Close Date (ascending)

NIH/NCI 384: Digital Healthcare Platform to Reduce Financial Hardship for Cancer Patients

Release Date: 07-18-2018 | Open Date: 08-16-2018 | Due Date: 10-22-2018 | Close Date: 10-22-2018

384 Digital Healthcare Platform to Reduce Financial Hardship for Cancer Patients Fast-Track proposals will be accepted. Number of Anticipated Awards: 2-3 Budget (total costs, per award): Phase I: up to $300,000 for up to 9 months; Phase II: up to $2,000,000 for up to 2 years PROPOSALS THAT EXCEED THE BUDGET OR PROJECT DURATION LISTED ABOVE MAY NOT BE FUNDED. Summary The cost of can ...

SBIR | Department of Health and Human Services | National Institutes of Health

NIH/NCI 385: Leveraging Connected Health Technologies to Address and Improve Health Outcomes of Long- Term Cancer Survivors

Release Date: 07-18-2018 | Open Date: 08-16-2018 | Due Date: 10-22-2018 | Close Date: 10-22-2018

Fast-Track proposals will be accepted. Number of Anticipated Awards: 2-3 Budget (total costs, per award): Phase I: up to $225,000 for up to 9 months; Phase II: up to $1,500,000 for up to 2 years PROPOSALS THAT EXCEED THE BUDGET OR PROJECT DURATION LISTED ABOVE MAY NOT BE FUNDED. Summary One of the consequences of living longer is the symptom burden of cancer survivorship, which is having a s ...

SBIR | Department of Health and Human Services | National Institutes of Health

NIH/NHLBI 107: Transcatheter Potts Shunt

Release Date: 07-18-2018 | Open Date: 08-16-2018 | Due Date: 10-22-2018 | Close Date: 10-22-2018

Transcatheter Potts Shunt Fast-Track proposals will be accepted. Number of anticipated awards: 2 Phase I, 1 Phase II Budget (total costs, per award): Phase I: up to $400,000 for up to 12 months; Phase II: up to $3,000,000 for up to 36 months PROPOSALS THAT EXCEED THE BUDGET OR PROJECT DURATION

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Agencies Investing in Cyber Innovations

SBIR STTR
Department of Defense

Homeland Security
Science and Technology

NASA SBIR/STTR

SMALL BUSINESS INNOVATION RESEARCH

Particularly Air monitoring & Remote Sensing, Homeland Security

NSF SBIR/STTR
SMALL BUSINESS INNOVATION RESEARCH
SMALL BUSINESS TECHNOLOGY TRANSFER

U.S. DEPARTMENT OF ENERGY
Office of Science

Particularly Office of Advanced Scientific Computing Research

NIST

SBIRESOURCE™

Designed to provide entrepreneurs and early-stage research and development companies with:

- Accessing post-award resources for continued funding and grant management
- Establishing liaisons with researchers and commercialization experts
- Locating space and equipment
- Partnering with prime contractors
- Partnering with a professor or business mentor
- Information sharing and networking events
- Delaware SBIResource electronic newsletter and timely information

Special Program Features

- Single point of contact for proposal submission applicants
- Customized agency research & focused submission advice for applicants
- Customized tailored writing assistance for applicants
- Proposal development & advisory services to develop a comprehensive winning submission

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Interested in learning more?
DSBDC is free, confidential, and here to help

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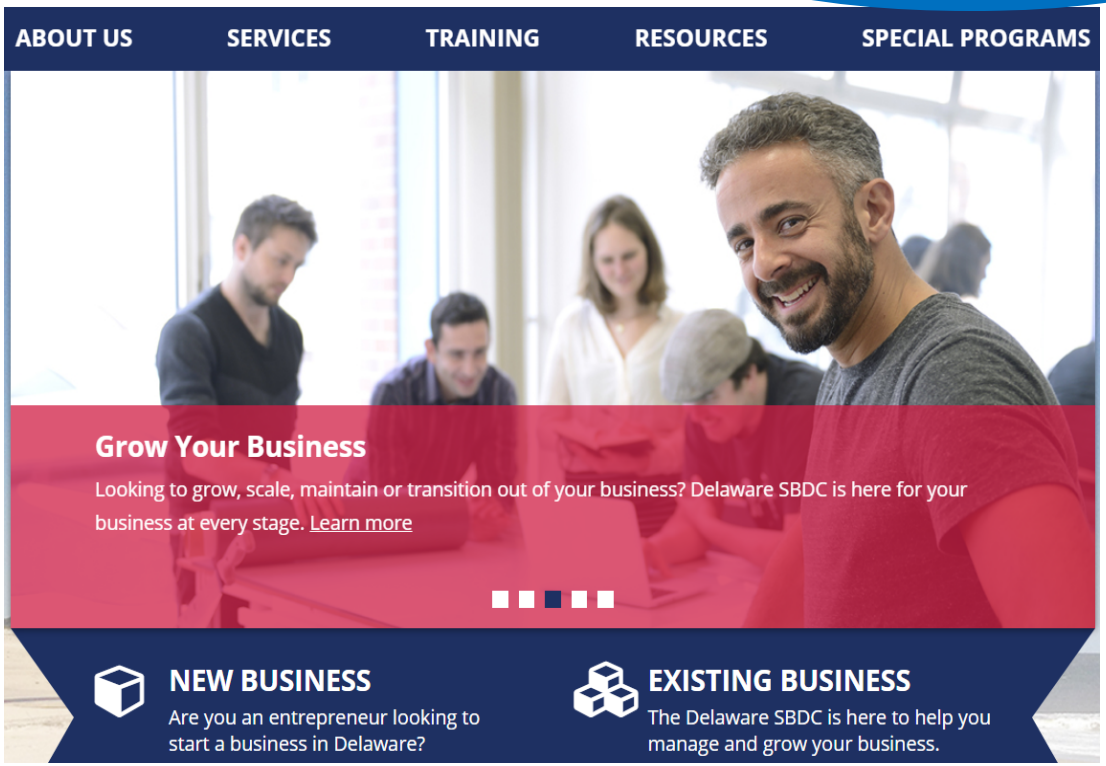
A unit of the University of Delaware's Office of Economic Innovation & Partnerships

Request Advising



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