Small Business Innovation Research Small Business Technology Transfer

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NASA SBIR/STTR Deputy Program Executive
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Mission of the SBIR and STTR Programs

To support scientific excellence and technological innovation through the investment of Federal research funds in critical American priorities to build a strong national economy... one small business at a time
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
- 3.0% of Federal agencies Extramural R&D budgets greater than $100M per year (FY 2015 ~ $2.9). Growing to 3.2% by 2017.

**Small Business Technology Transfer (STTR)**
- A companion set-aside program to facilitate cooperative R&D between small business concerns and U.S. research institutions – with potential for commercialization.
- 0.45% of the extramural research budget (>$250 million) for all agencies with a budget greater than $1B per year
<table>
<thead>
<tr>
<th>Eligibility Requirements</th>
<th>Small Business Innovation Research (SBIR)</th>
<th>Small Business Technology Transfer (STTR)</th>
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<tbody>
<tr>
<td>1</td>
<td>Organized for-profit U.S. business</td>
<td>Formal Cooperative R&amp;D Effort with a U.S. Research Institution</td>
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<td>2</td>
<td>At least 51% U.S. owned by individuals and independently operated</td>
<td>Minimum 40% by small business, 30% by U.S. Research Institution</td>
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<td>3</td>
<td>500 or fewer employees</td>
<td>Small business is Prime, PI can be from SBC or Research Institution</td>
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<td>4</td>
<td>PI’s primary employment with small business during project</td>
<td>Other SBIR Requirements Apply</td>
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<td>5</td>
<td>Intellectual Property Agreement</td>
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</table>
11 Participating Federal Agencies

SBIR + STTR Programs

- Department of Defense (DoD)
- Department of Health and Human Services (HHS)
- Department of Energy (DoE)
- National Aeronautics and Space Administration (NASA)
- National Science Foundation (NSF)

SBIR Program only:

- Department of Agriculture (USDA)
- Department of Education (DoEd)
- Department of Transportation (DoT)
- Environmental Protection Agency (EPA)
- Department of Homeland Security (DHS)
- Department of Commerce (DoC)
11 Participating Federal Agencies

- HHS: 797.0 M
- DOE: 206.1 M
- NSF: 176.0 M
- USDA: 25.3 M
- NASA: 180.1 M
- All Others: 45.7 M

~ $2.5B in FY15 Across All Agencies
Agency SBIR Differences

Contracting Agencies

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

- Contracting agencies
- Typically utilize agency personnel for review

Granting Agencies

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

- Granting agencies
- Typically use external peer review
- Reviewers agree to keep application information confidential and certify that they don’t have conflicts of interest
• NASA’s SBIR and STTR programs have awarded over $3.3B to research-intensive American small businesses to date.

• Engineers and scientists from over 12,000 Firms in all 50 States, DC and Puerto Rico have participated

• On average each year 1,700 NASA scientists and engineers support the program performing technical reviews
Why Participate in SBIR/STTR?

1. Over $2.25 Billion available every year
2. Funds are NOT A LOAN - no repayment - up to $1.5M capital
3. Small businesses retain intellectual property rights
4. Provides seed money to fund high risk projects
5. Develop working relationship & credibility with government R&D
6. Fosters partnerships with large corporations and academia
7. Provides recognition and visibility for your business
8. Participation attracts venture capital and other funding sources
Structure of the Programs

Phase I: Concept
- Award Guideline: $125K
- Duration: 6 months (SBIR)
  12 months (STTR)

Phase II: Full Research, R&D to Prototype
- Award Guideline: $750K
- Duration: 24 months
  - Phase II-E → 1:1 Matching up to $375K
    (2016 Solicitation onwards)

Phase III: Commercialization/Infusion
- Non-SBIR/STTR funds
  - Contract from NASA program, other agency, prime contractor
2017 Solicitation

SBIR/STTR Program Solicitation

Nov. 17, 2016 - Jan. 20, 2017

Selections scheduled to be announced on April 10, 2017
2017 Solicitation - Noteworthy Changes

- **I-Corps**
  In partnership with the National Science Foundation (NSF), NASA is offering the I-Corps program to educate selected teams on how to translate technologies from the laboratory into the market place.
  
  [http://sbir.nasa.gov/content/I-Corps](http://sbir.nasa.gov/content/I-Corps)

- **CCRPP**
  Eligible SBIR/STTR Phase II awardees (from any Agency) can submit applications to NASA’s FY17 Civilian Commercialization Readiness Pilot Program (CCRPP) related to NASA interests.
  
  [http://sbir.gsfc.nasa.gov/content/post-phase-ii-initiatives](http://sbir.gsfc.nasa.gov/content/post-phase-ii-initiatives)
Focus Areas
The research subtopics are now organized by “Focus Areas” that group NASA interests and related technologies.
This change is intended to make it easier for proposers to understand related needs across the agency and thus identify subtopics where their R&D capabilities may be a good match.

http://sbir.gsfc.nasa.gov/solicit-detail/58007

2017 Focus Areas

1. In-Space Propulsion Technologies
2. Power and Energy Storage
3. Autonomous Systems for Space Exploration
4. Robotic Systems for Space Exploration
5. Communications and Navigation
6. Life Support and Habitation Systems
7. Human Research and Health Maintenance
8. In-Situ Resource Utilization
9. Sensors, Detectors and Instruments
10. Advanced Telescope Technologies
11. Spacecraft and Platform Systems
12. Entry, Descent and Landing Systems
13. Information Technologies for Science Data
14. In-Space and Advanced Manufacturing
15. Lightweight Materials, Structures, Assembly, and Construction
16. Ground and Launch Processing
17. Thermal Management Systems
18. Air Vehicle Technology
19. Integrated Flight Systems
20. Airspace Operations and Safety
21. Small Spacecraft Technologies
22. ISS Utilization and Microgravity Research
2016 At-A-Glance

Annual Award Budget FY16:

**SBIR & STTR:** approx. $200M

- SBIR is 3.0% of R&D in FY16. In FY17, NASA will increase the SBIR investment to 3.2%.
- STTR is .45% of extramural R&D budget in FY16

FY 16 Awards At-A-Glance:

- SBIR Awards: 341 Phase I and 137 Phase II
- STTR Awards: 58 Phase I, 21 Phase II
Access Annual Solicitations
(2017 Solicitation now open through January 20th)

Information for NEW participants available under “Proposers”

SBIR/STTR Helpdesk and Program Points of Contact
THE EVOLUTION OF A MARTIAN
How To Contact Us

• **Online**: www.sbir.nasa.gov
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