Small Business Innovation Research
Small Business Technology Transfer

Joseph Grant
NASA SBIR/STTR Deputy Program Executive
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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
- For FY17, 3.2% of Federal agencies Extramural R&D budgets greater than $100M per year

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
- For FY17, 0.4% of the extramural research budget for all agencies with a budget greater than $1B per year
### Eligibility Requirements

<table>
<thead>
<tr>
<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>
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<tr>
<td>2</td>
<td>At least 51% U.S. owned by individuals and independently operated</td>
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<td>3</td>
<td>500 or fewer employees</td>
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<td>4</td>
<td>Principal Investigator’s primary employment with small business during project</td>
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<td>5</td>
<td>Intellectual Property Agreement</td>
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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

DOD 1.070 B

Grants

Contracts
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
Program Background

- 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 17, 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.

  **I-Corps Step 2 Proposal Submission Period – April 20-27, 2017**

  [http://sbir.nasa.gov/content/I-Corps](http://sbir.nasa.gov/content/I-Corps)

- **CCRPP**
  Under NASA’s new Civilian Commercialization Readiness Pilot Program (CCRPP), NASA will match the investments with SBIR/STTR program funds between $125K-$2M for each CCRPP award. The technology proposed for advancement toward commercialization should have a strong relevance to NASA’s missions, as well as a strong potential use by NASA and/or markets outside of NASA beyond the CCRPP investment.

  **CCRPP Applications Submissions closed on March 31, 2017**

  [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

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<th>2017 Focus Areas</th>
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<td>1. In-Space Propulsion Technologies</td>
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<td>2. Power and Energy Storage</td>
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<td>3. Autonomous Systems for Space</td>
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<td>4. Robotic Systems for Space Exploration</td>
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<td>5. Communications and Navigation</td>
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<td>6. Life Support and Habitation Systems</td>
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<td>7. Human Research and Health Maintenance</td>
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<tr>
<td>8. In-Situ Resource Utilization</td>
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<td>9. Sensors, Detectors and Instruments</td>
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<td>10. Advanced Telescope Technologies</td>
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<td>11. Spacecraft and Platform Systems</td>
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<td>12. Entry, Descent and Landing Systems</td>
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<td>13. Information Technologies for</td>
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<td>14. In-Space and Advanced Manufacturing</td>
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<td>15. Lightweight Materials, Structures,</td>
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<td>16. Ground and Launch Processing</td>
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<td>17. Thermal Management Systems</td>
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<td>18. Air Vehicle Technology</td>
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<td>19. Integrated Flight Systems</td>
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<tr>
<td>20. Airspace Operations and Safety</td>
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<tr>
<td>21. Small Spacecraft Technologies</td>
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<td>22. ISS Utilization and Microgravity Research</td>
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2017 NASA SBIR/STTR Industry Day

MARK YOUR CALENDARS!

Location: NASA Ames Research Center in Silicon Valley
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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- **Email**: sbir@reisystems.com