SBIR and STTR 101: Getting the Most From This Conference

THE NATIONAL SBIR CONFERENCE
MAY 14-16, 2013
WASHINGTON, DC

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Dept. of the Navy
SBIR/STTR Program

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National Institutes of Health
SBIR/STTR Program

Program Overview

2.7% FY2013
Small Business Innovation Research (SBIR): a set-aside program created by Congress in 1982 for small business concerns to engage in Federal R&D -- with potential for commercialization.

0.35% FY2013
Small Business Technology Transfer (STTR): a set-aside program created by Congress in 1992 to facilitate cooperative R&D between small business concerns and U.S. research institutions -- with potential for commercialization.

SBIR and STTR were reauthorized by Congress in P.L. 112-81 for 2011 – 2017, with annual increases in the assessment of Federal extramural RDT&E funds.
Program Goals

SBIR  est. 1982
- Stimulate technological innovation
- Use small business to meet Federal R&D needs
- Foster and encourage participation by minorities and disadvantaged persons in technological innovation
- Increase private-sector commercialization innovations derived from Federal R&D

STTR  est. 1992
- Stimulate and foster scientific and technological innovation through cooperative research and development carried out between small business concerns and research institutions
- Foster technology transfer between small business concerns and research institutions

SBIR Program Eligibility

- Organized for-profit U.S. business
- 500 employees or fewer, including affiliates
- More than 50% directly owned and controlled by one or more individuals (who are citizens or permanent resident aliens of the United States)
- PI’s primary employment must be with the small business concern

New eligibility authority available to Agencies from reauthorization:
- More than 50% directly owned and controlled by one or more for-profit businesses, each being more than 50% owned and controlled by one or more individuals
- NIH initiative: Be a concern which is more than 50% owned by multiple venture capital operating companies, hedge funds, private equity firms, or any combination of these. No single venture capital operating company, hedge fund, or private equity firm may own more than 50% of the concern.
STTR Program Eligibility

- Applicant is a small business concern
- Formal cooperative R&D effort
  - Minimum 40% by small business
  - Minimum 30% by U.S. research institution
- U.S. Research Institution
  - College or University; other non-profit research organization
  - Federal R&D center *(added by reauthorization statute)*
- Intellectual property agreement
  - Allocation of data rights for four years
  - Right to carry out follow-on R&D and commercialization via Phase III contracts and investment

SBIR/STTR: 3-Phase Competitive Program

**PHASE I Feasibility Study**
- Award Guideline: $150K ... varies by Agency ... can rise to $225K
- Duration: 6 months (SBIR)/12 months (STTR)

**PHASE II Full Research, R&D to Prototype**
- Award Guideline: $1M (SBIR)/$1M (STTR) ... varies by Agency ... can rise to $1.5M, or more with waiver
- Duration: 2 years

**PHASE III Commercialization**
- Subsequent investment to achieve commercialization, or sale
- Use of non-SBIR/STTR Funds
SBIR/STTR Budgets by Agency, FY2012

~ $2.4B in FY12 across all agencies

Agencies with SBIR and STTR Programs

<table>
<thead>
<tr>
<th>Agency</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Defense (DOD)</td>
<td>$1.3 B</td>
</tr>
<tr>
<td>Department of Health and Human Services: National Institutes of Health (NIH)</td>
<td>$717.0 M</td>
</tr>
<tr>
<td>National Aeronautics and Space Administration (NASA)</td>
<td>$161.8 M</td>
</tr>
<tr>
<td>Department of Energy (DOE)</td>
<td>$188.3 M</td>
</tr>
<tr>
<td>National Science Foundation (NSF)</td>
<td>$150.6 M</td>
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</table>

Agencies with SBIR Programs

<table>
<thead>
<tr>
<th>Agency</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Department of Agriculture (USDA)</td>
<td>$19.3 M</td>
</tr>
<tr>
<td>Department of Homeland Security (DHS)</td>
<td>$12.6 M</td>
</tr>
<tr>
<td>Department of Education (ED)</td>
<td>$13.4 M</td>
</tr>
<tr>
<td>Department of Transportation (DOT)</td>
<td>$8.6 M</td>
</tr>
<tr>
<td>Department of Commerce: National Oceanic and Atmospheric Administration (NOAA) and National Institute of Standards and Technology (NIST)</td>
<td>$4.7 M</td>
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<tr>
<td>Environmental Protection Agency (EPA)</td>
<td>$4.8 M</td>
</tr>
</tbody>
</table>

NIH SBIR/STTR Budget by Institutes, FY2012

2.6% SBIR $632M
0.35% STTR $85M
Total FY2012 $717M
2.6% SBIR = $1,034,164,000
0.35% STTR = $127,541,000
Total FY12 = $1,289,246,000

Agency SBIR/STTR Differences and Conference Alignment

- Agency mission and success metrics
  - Conference sessions #3, 4, 5 and 6 – Wednesday morning
- Number and timing of Solicitations over FY
  - Sessions #3, 4, 5 and 6
- R&D Topic areas -- broad vs. specific, commercial market vs. acquisition focus
  - Sessions #3, 4, 5 and 6
- Award type, size and structure – contract vs. grant; base-and-options, etc.
  - Sessions #3, 4, 5 and 6
- Assistance available to awardees for commercialization
  - Sessions #7, 8 and 12 – Wednesday afternoon
- Government technical monitor (TPOC) role
- Financial details (e.g., Indirect Cost Rates, Gap Funding)
  - Sessions #18 and 24 – Thursday morning
- Proposal preparation instructions, receipt dates and review process
  - Sessions #11, 15, 16 – Wednesday afternoon -- and 25, Thursday morning

Agency booths at the Conference are another source of information
Agency SBIR Differences

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

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

DOD
- DHS
- HHS/NIH
- NASA
- EPA
- DOT
- DOC

NIH offers both grants and contracts

Some Frequently Asked Questions

- As an SBIR/STTR newcomer, what are my chances of winning a Phase I award? How do I optimize my chances?
- As a new SBIR/STTR Phase II winner, how should I approach commercializing my technology?
- Do I need a partner to be successful through SBIR/STTR?
- How is a successful small technology firm structured? Do I need a manufacturing capability?
- As a SBIR/STTR awardee, how strong are my Intellectual Property protections?
- How long does the technology development and sales cycle typically take for SBIR/STTR awardees?
Conference Attendance Tips

- In the Conference sessions, 1-on-1 meetings, and at the Agency booths, listen for and ask about these differences: they’ll impact your choices.
- Look for potentially close matches between your technological focus and the desired technologies and applications an Agency depicts in its solicitations.
- If you’re new to entrepreneurship, ask Agency reps about what level of business functionality they typically see in successful small businesses.
- Forge ties and linkages: this is a rare opportunity to work directly with senior Agency staff who manage SBIR/STTR.

Mining Conference Resources

- Aligning your technology with the right Agency
- Finding SBIR/STTR Topics
- Winning SBIR/STTR awards
- Commercializing technology
- Understanding the value of partnerships
- Business functions, business structure
- Pitfalls, obstacles and help sources
- Intellectual property and data rights
Aligning Technologies and Agencies

- Follow the Agenda Tracks:
  - Track 1 – Large non-DoD Agencies: NIH, DOE, NASA, NSF
  - Track 2 – DoD Services and smaller Components
  - Track 3 – Smaller non-DoD Agencies
- All Agency summaries are offered this morning, concurrently.

- To parse the Agencies, review the Agency-At-A-Glance one-pagers posted at www.nationalinnovationsummit.com/program/SBIR_Program.html

- At the Agency booths, ask SBIR/STTR staff to help you identify matches in current or future Solicitations between your technology and that Agency’s Topics.

- Be proactive: have a quad chart ready that describes your technology ….. What’s a quad chart, you ask?

Defense Technology Quad Chart
Medical Technology Quad Chart

Finding SBIR/STTR Topics

TIP: search as close to Topic sources as possible, by Agency

- Government-wide: [www.sbir.gov/solicitations](http://www.sbir.gov/solicitations)
  - Note: this website does not allow searching of DoD and other Agency Topics

- Mega Agencies: [http://sbir.nih.gov](http://sbir.nih.gov) and [www.dodsbir.net](http://www.dodsbir.net)

- Individual Agency websites: go to [www.sbir.gov/contacts](http://www.sbir.gov/contacts) for a comprehensive list

- Comprehensive Agencies search site: [www.zyn.com/sbir](http://www.zyn.com/sbir)
What Does A Defense Topic Look Like?

What Do Health/Medical Topics Look Like?
### Proposals that Win SBIR/STTR Awards

- Results differ by Agency, but government-wide about one-third of FY awardees are newcomers each year. You can do this!

<table>
<thead>
<tr>
<th>Session #</th>
<th>Time</th>
<th>Topic</th>
<th>Location</th>
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<tbody>
<tr>
<td>#11</td>
<td>1315 – 1405</td>
<td>What Are the Elements of Winning DOD Phase I and II Proposals?</td>
<td>Annapolis 3-4</td>
</tr>
<tr>
<td>#15</td>
<td>1315 – 1405</td>
<td>How Do I Apply For a Grant Using Grants.gov?</td>
<td>Baltimore 1-2</td>
</tr>
<tr>
<td>#25</td>
<td>1105 – 1155</td>
<td>What SBIR/STTR Support is Available at State, Regional or Local Levels?</td>
<td>Annapolis 3-4</td>
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### Technology Commercialization

- “Commercialization” of a technology entails its maturation and related customer capture steps, including direct sale or license of a technology product, or its integration as a component into a larger product.

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<tr>
<td>#7</td>
<td>1315 - 1405</td>
<td>Non-DOD Agency Commercialization Programs</td>
<td>Annapolis 1-2</td>
</tr>
<tr>
<td>#8</td>
<td>1405 – 1455</td>
<td>Developing Strong Commercialization</td>
<td>Annapolis 1-2</td>
</tr>
<tr>
<td>#12</td>
<td>1405 – 1455</td>
<td>DOD Commercialization Readiness Program</td>
<td>Annapolis 3-4</td>
</tr>
<tr>
<td>#17</td>
<td>1515 – 1605</td>
<td>Does My Technology Have Varied Agency Applications?</td>
<td>Baltimore 1-2</td>
</tr>
<tr>
<td>#21</td>
<td>1105 – 1155</td>
<td>What Are My Options in Developing a Manufacturing Competency?</td>
<td>Annapolis 1-2</td>
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</table>
## Who Needs a Partner?

- As successful small firms will tell you in Sessions #22-23, understanding the strategic value of partnerships, types of partnerships and partnering resources can make a vital difference in a firm’s R&D and commercialization success.

### Session Schedule

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<thead>
<tr>
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<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>#9</td>
<td>1515-1605</td>
<td>Forming Partnerships with Large Firms (Non-DOD firms)</td>
</tr>
<tr>
<td>#10</td>
<td>1605-1655</td>
<td>Forming Partnerships: Universities, Federal Labs, FFRDCs</td>
</tr>
<tr>
<td>#13</td>
<td>1515-1605</td>
<td>Partnering With DOD Prime Contractors</td>
</tr>
<tr>
<td>#14</td>
<td>1605-1700</td>
<td>What Should I Know About the DOD Rapid Innovation Fund (RIF)?</td>
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## Business Architecture Basics

- Winning commercialization strategies for SBCs in the defense, energy, health/medical and other markets identify and incorporate those business functions which are essential to company growth in those markets.

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<td>1105-1155</td>
<td>What SBIR/STTR Support is Available at State, Regional or Local Levels?</td>
</tr>
<tr>
<td>#27</td>
<td>0905-0955</td>
<td>How Do I Approach Potential Investors?</td>
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</tbody>
</table>
### What Could Go Wrong? Avoiding Pitfalls, Getting Help

- Consultants aside, some of the help available to you comes from SBA and federal/state programs such as SCORE (retired executives counsel to SBCs)

#### Session #8
- **1405 – 1455** Developing Strong Commercialization Plans
  - Annapolis 1-2

#### Session #18
- **0815 – 0905** What Should I Know About Fraud, Waste and Abuse?
  - Annapolis 1-2

#### Session #20
- **1015 – 1105** What Should I Know About ITAR?
  - Annapolis 1-2

#### Session #24
- **1015 – 1105** Pre-Award Accounting Systems
  - Annapolis 3-4

#### Session #26
- **0815 – 0905** Changes to Size Standard and Certification Process Based on SBIR Reauthorization
  - Baltimore 1-2

### Intellectual Property, Data Rights Issues

- While Federal guidance is available from the U.S. Patent & Trade Office (USPTO), most states provide assistance if you search for it: a good example is Virginia’s Center for Innovative Technology.

#### Session #19
- **0905 – 0955** Data Rights – How Does SBIR/STTR Differ From Other Programs?
  - Annapolis 1-2

#### Session #20
- **1015 – 1105** What Should I Know About ITAR?
  - Annapolis 1-2

#### Session #25
- **1105 – 1155** What SBIR/STTR Support is Available at State, Regional or Local Levels?
  - Annapolis 3-4
SBIR/STTR Reauthorization Update

P.L. 112-81, signed into law 12/31/2011, contains 41 new provisions that transform SBIR and STTR

Funding Related Provisions

Section 5102 – SBIR and STTR Allocation Increase

<table>
<thead>
<tr>
<th>FY</th>
<th>Set-aside SBIR</th>
<th>Set-aside STTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 (current)</td>
<td>2.5%</td>
<td>0.30%</td>
</tr>
<tr>
<td>2012</td>
<td>2.6%</td>
<td>0.35%</td>
</tr>
<tr>
<td><strong>2013</strong></td>
<td><strong>2.7%</strong></td>
<td><strong>0.35%</strong></td>
</tr>
<tr>
<td>2014</td>
<td>2.8%</td>
<td>0.40%</td>
</tr>
<tr>
<td>2015</td>
<td>2.9%</td>
<td>0.40%</td>
</tr>
<tr>
<td>2016</td>
<td>3.0%</td>
<td>0.45%</td>
</tr>
<tr>
<td>2017</td>
<td>3.2%</td>
<td>0.45%</td>
</tr>
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Funding Related Provisions

Section 5103 – SBIR and STTR Award Levels

<table>
<thead>
<tr>
<th>Program</th>
<th>Phase I</th>
<th>Phase II</th>
<th>Previous</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBIR</td>
<td>$150,000</td>
<td>$1,000,000</td>
<td>150K/1M</td>
</tr>
<tr>
<td>STTR</td>
<td>$150,000</td>
<td>$1,000,000</td>
<td>100K/750K</td>
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Hard Limits* on award size to 50% over guidelines

<table>
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<tr>
<th>Program</th>
<th>Phase I</th>
<th>Phase II</th>
<th>Previous</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBIR</td>
<td>$225,000</td>
<td>$1,500,000</td>
<td>Flexible</td>
</tr>
<tr>
<td>STTR</td>
<td>$225,000</td>
<td>$1,500,000</td>
<td>Flexible</td>
</tr>
</tbody>
</table>

* Agency waiver from SBA required to exceed award + 50%

Provisions Impacting SBCs

Section 5108 – Special Acquisition Preference
 Agencies, prime contractors shall issue Phase III awards to the greatest extent practicable.

Section 5125 – Definition of Phase III
 "Phase III is work that derives from, extends or completes efforts made under prior SBIR/STTR funding agreements."

Section 5138 – Technology Insertion Reporting
 Phase III award data must be included in SBA’s annual report to Congress.

Section 5144 – Simplified Paperwork Requirements
 SBA shall issue guidelines to ensure that each Federal agency simplifies and standardizes the paperwork requirements of small businesses.

Section 5162 – Competitive Selection Procedures
 All awards must be made pursuant to competitive and merit-based selection procedures.
Provisions Impacting SBCs

Section 5104 – Agency and Program Flexibility
- A firm may receive a Phase II award from an agency that is not the one that awarded their Phase I award.
- A firm may receive a Phase II award under a program that is not the one that they received their Phase I award under.

Section 5105 – Elimination of Phase II Invitations
Invitation, pre-screening and pre-selection processes are no longer permitted for Phase II proposal submission.

Section 5106 – Pilot to Allow Phase Flexibility
Authorized to establish a Pilot Program that will allow for a Phase II award to be made without regard to whether or not the firm received a Phase I award.

Provisions Impacting SBCs

Section 5107 – Participation by VC Firms
Firms majority-owned by venture capital operating companies, hedge funds and private equity are now included in the SBIR program.
- NIH, DOE, NSF up to 25% NIH has implemented
- DoD and other agencies 15%

Section 5109 – Collaborating with Federal Labs
No waiver is required for partnership with Federal Labs and Centers.

Section 5111 – Additional SBIR/STTR Awards
Firms are eligible to receive one additional Phase II award for continued work.

Section 5121 – Technical Assistance for Awardees
The amount allocated for Technical Assistance for awardees is increased to $5,000 per award per year. Phase II and STTR awards now included.
Provisions Impacting SBCs

Section 5122 – Commercialization Readiness Program at DoD
- The Commercialization Pilot Program is no longer a pilot, and is called the Commercialization Readiness Program.
- Program is extended to STTR.

Section 5123 – Commercialization Readiness Pilot Program for Civilian Agencies
Allows Civilian agencies to allocate not more than 10% of SBIR funds to establish commercialization readiness pilot programs.

Section 5126 – Shortened Award Decision Period
Selections must be made within 90 days of the solicitation close. NIH & NSF one year from solicitation close.

Provisions Impacting SBCs

Section 5140 – Consent to Release Information
Firms must give consent before their information is released to Economic Development Organizations.

Section 5143 – Reducing Fraud, Waste and Abuse
SBA must include measures in the SBIR Policy Directive to prevent fraud, waste and abuse in the SBIR/STTR programs.

Section 5165 – Commercialization Success
- Federal agencies must establish a system to measure a firm’s success rate of moving from Phase I to Phase II and from Phase II to Phase III.
- Agencies must establish a minimum threshold for these rates.
- If a firm does not meet these minimum thresholds, they will be suspended from the program for one year.
Reporting Related Provisions

Section 5138 – Technology Insertion Reporting
Phase III award data must be included in the annual report to Congress.

Section 5161 – Report on SBIR/STTR Program Goals
Federal agencies will develop and report metrics that evaluate the effectiveness and benefit of the SBIR/STTR programs to the people of the United States.

Section 5167 – Report on Manufacturing Activities
The Manufacturing report is now included in the Annual Report to Congress.

Audit/Study Related Provisions

Section 5136 – Accuracy in Funding Base Calculations
GAO will complete an annual fiscal and management audit.

Section 5137 – Evaluation by National Academy
- The National Academy of Sciences (NAS) will evaluate the SBIR/STTR Programs.
- The NAS will evaluate the number of positions created by each SBIR award.

Section 5139 – Intellectual Property Protections
The Comptroller General must conduct a study of Intellectual Property Protections in the SBIR program.

Section 5142 – GAO Study of VC
Comptroller General shall conduct a study of the impact of requirements relating to VC operating company, hedge fund, and private equity firm involvement in the SBIR/STTR programs.
Status of SBIR/STTR Reauthorization Provisions

- Phased implementation of reauthorization provisions commenced 28 January is well underway
- Policy Directives are issued and available at www sbir.gov
- Eligibility and other rules are described in detail in individual Solicitations: read the Solicitations carefully!
- Coordinate with SBA and other agencies
- See Agency-specific talks later today for details!

Questions?