

Overview of the SBIR/STTR Program

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Burlington, Vermont

Today's Objectives

- Overview Of The Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Program
- Review the Elements of Proposal
- How to Research Topics
- Other Funding Opportunities

Federal SBIR/STTR Funds

- Small Business Innovation Research (SBIR) – Small business performs 67% of work, may subcontract balance to non-profit research institutions or other companies
- Federal Agencies with extramural R&D Funding > \$100M sets aside 2.7% for SBIR and 0.35% for STTR
- Small Business Technology Transfer (STTR) – SB performs 40% to 60% of work, MUST partner with a non-profit research institution and negotiate allocation of IP rights

What is the SBIR/STTR Program?

- A \$2.5B early stage R&D funding resource for:
 - early stage, high risk innovative technology leading to commercialization
- Three phase effort:
 - Phase I: Feasibility
 - Phase II: Prototype Development
 - Phase III: Commercialization

Federal SBIR/STTR Funds

- 11 Federal Agencies participate, issues solicitations with topics of interest
- Some larger Agencies have multiple solicitations
- Companies submit proposal in response to topic:
 - Phase I ~25 page proposal
 - Phase II ~50 page proposal
- Technical Competition – not cost
- Credibility of the proposing team is very important!

SBIR/STTR Program Phases

➤ Phase I – Feasibility Study

- Will your idea work?
- Submit ~25 page proposal
- Performance period – 6-9 months
- Funding level – Up to \$150,000 may go up to \$225,000
- Average success rate 10% - 16%

SBIR/STTR Program Phases

➤ Phase II – Prototype Development

- Bench Level - commercialization potential
- General submission from Ph I
- Proposal length ~50 pages
- Performance Period – 2 years
- Funding Level – Up to \$1,000,000
- Average success rate: 40% - 50%

SBIR/STTR Program Phases

➤ Phase III – Commercialization

- No SBIR/STTR funding
- Other federal funding may be available
- Three “F’s”, Angels,
- State resources
- Venture Capital

SBIR/STTR Agencies

➤ SBIR/STTR

- Department of Defense (DoD) (C), (Line)
Air Force, Army, Navy, Defense Advanced Research Projects Agency, Defense Technical Information Center, Defense Threat Reduction Agency, Missile Defense Agency, National Geospatial-Intelligence Agency, Special Operations Command
- National Institutes of Health (NIH) (G) (Peer)
- National Aeronautics & Space Administration (NASA) (C), (Line)
- Department of Energy (DOE) (G) (Line)
- National Science Foundation (NSF) (G) (Peer)

SBIR/STTR Agencies

➤ SBIR Only:

- U.S. Dept. of Agriculture (USDA) (G) (Peer)
- Department of Homeland Security (DHS) (C) (Line)
- Department of Education (Ed) (G) (Peer)
- Department of Transportation (DOT) (C) (Line)
- Department of Commerce: (DOC) (C) (Line)
 - National Institute of Standards & Technology (NIST)
 - National Oceanic and Atmospheric Administration (NOAA)
- Environmental Protection Agency (EPA) (C) (Peer)

Agency SBIR/STTR Differences

- Agency mission and success metrics
- Number and timing of Solicitations over FY
- R&D Topic areas -- broad vs. specific, commercial market vs. acquisition focus
- Award type, size and structure – contract vs. grant; base-and-options, etc.
- Assistance available to awardees for commercialization
- Government technical monitor (TPOC) role
- Financial details (e.g., Indirect Cost Rates, Gap Funding)
- Proposal preparation instructions, receipt dates and review process

Who Can Participate?

- Small Businesses that are:
 - Independently owned and operated
 - Organized for-profit
 - Principal place of business is in the US
 - At least 51% owned by US citizens or permanent residents
 - Has 500 or less employees including its affiliates
 - The Principal Investigator leading the effort must be more than 50% employee of the business
 - May now include large business ownership – each agency has its own rules

SBIR/STTR Program Reauthorization

- 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.
- 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
- For more information on the Reauthorization Act which contains over 41 new provisions, visit the SBA's site at www.sbir/gov

Company Considerations

- Do you have an idea for a technology that is:
 - ☐ Revolutionary not evolutionary, or is a novel application of an existing technology
 - ☐ Improves the social, medical or other aspects of a person's life
 - ☐ Advances the existing state of the science
 - ☐ Once commercialized provides jobs, benefits and taxes
 - ☐ And you want to either start a business or keep your company growing

Advantages & Benefits -the GOOD News

- Evaluation is based scientific and technical merit, firms' qualifications, commercial potential and societal benefits
- Requires NO REPAYMENT of monies received – grant or contract
- Requires NO EQUITY sacrifice
- Intellectual property rights remain with the small business
- Follow-on Phase III awards are sole source up to 5 years from date of last SBIR/STTR award

SBIR/STTR Reality

- Highly competitive -- requires excellence in all aspects of competition process
- The Principal Investigator must have primary employment with the proposing business
- Funding generally NOT CONTINUOUS between Phase I and Phase II
- A credible project team must be assembled
- A viable commercialization plan is critical
- You need to submit an excellent and compelling proposal that excites reviewers, is complete and is innovative

SBIR/STTR is a Process

It can be considered Patient Capital!

- Submit a proposal
- 4 to 6 month review process by either internal or external panel of reviewers (goal 90 days)
- 1 -2 month award process
- 6 -9 month period of performance for Phase I
- Submit Phase II proposal
- 4 month review process
- 2 year period of performance for Phase II
- Commercialization

On average a 3-4 year program – but uses OPM (other people's money!!)

SBIR/STTR Proposal Tips

What makes a proposal standout?

- Compelling – tells a great story
- Succinct
- Meets a need and provides a solution
- Contains achievable objectives
- Adequate facilities and resources
- Has a realistic budget
- Has knowledge of existing state of the research
- Achievable timeline

How to Begin

- Understand where your technology sits in the marketplace
 - Search the literature
 - Conduct market research
 - Talk to others
 - Understand what differentiates your approach and technology from others
 - Begin establishing your team
 - Research topics and determine fit
 - Talk to the Agency Program Manager

How to Access Information

➤ <http://sbir.gov/>

- Information on both SBIR and STTR programs
- Handbook for proposal preparation
- State award information
- Agency contacts

➤ www.zyn.com/sbir

- Links to the agency SBIR/STTR sites
- Agency solicitation release/proposal due dates agency
- Key word search on topics – search both open and closed solicitations
- Conference information

Researching Topics

- Go to <http://www.zyn.com/sbir/sbres/sbcss.htm>
- Open or closed topic search
- Insert key word
- Great competitive research opportunity
- Gives visibility into (multi) Agency needs
- Links to Agency's solicitations
- Never judge an Agency by its name!

Elements of a Proposal

- Abstract
- Project Narrative
 - Identification/Significance of the Problem or Opportunity
 - Background and Rationale
 - Relationship with Research or R&D
 - Technical Objectives (very important)
 - Work Plan (most important)
 - Potential Post Application – commercialization plan

Elements of a Proposal

(Continued)

- Bibliography/References
- Facilities & Other Resources
- Equipment
- Other Attachments – consultants, subcontractors, letters of support
- Key Personnel – bio and support
- Budget – can take fee of up to 7% ~10,500

Keep in mind that every agency has its nuances!

Never judge an agency by its name!

SBIR/STTR Registration Process

- ☐ Register the business with the IRS to obtain a Taxpayer Identification Number
- ☐ Register with Dun & Bradstreet at <http://fedgov.dnb.com/webform>
- ☐ Register with System for Award Management (SAM) at <https://www.sam.gov>
- ☐ Register with the SBA at www.sbir.gov
- ☐ Depending on the Agency requirements
 - register at www.grants.gov,
 - the DOD Submission site - <http://www.dodsbir.net/submission/SignIn.asp>,
 - the Nat'l Science Foundation (NSF) Fastlane site - <https://www.fastlane.nsf.gov/index.jsp>
 - National Institute of Health (NIH's) eRA Commons - <https://public.era.nih.gov/elf/jsp/commons/login.jsp>

If no problems at any point, registration can occur within a week, if problems up to 4 weeks

Vermont SBIR/STTR Awards

- 393 SBIR/STTR Awards
- \$99,025,703 since 1983

Period	Dollars Awarded	Phase I/II	Total Awards
2013	\$299,243	2/0	2
2012	\$8,554,958	10/7	17
2011	\$3,468,637	12/3	15
2005-2010	\$66,658,581	65/38	103
2000-2004	\$39,698,102	71/27	98
1990-1999	\$42,408,769	94/33	127
1984 - 1989	\$5,114,067	25/4	29

Vermont Supports Applicants

- Vermont EPSCoR offers:
 - Phase 0 Applications
 - Use of Facilities Award
 - <http://www.uvm.edu/~epscor/new02/>
- Vermont SBIR Outreach Program :
http://accd.vermont.gov/business/relocate_expand/capital
 - Technical assistance
 - Networking and incentive programs
- Vermont Center for Emerging Technologies (VCET)
 - Contact Andrew Stickney - andrew@vermonttechnologies.com
 - Targeted business incubator for entrepreneurs (not just SBIR)
 - Shared resources
 - Access to capital and networking

SBIR/STTR Vermont Awardees

- Concepts NREC – 52 awards
- Green Mountain Radio Research Company – 33 awards
- MicroStrain, Inc – 27 awards
- MicroBrightfield – 20 awards
- Laureate Learning Systems – 17 awards
- Psychological Applications – 16 awards

- 2013 SBA Tibbetts Awardee
 - MBF Bioscience – Williston, Vermont,
www.mbfbioscience.com, designs quantitative imaging software for stereology, neuron reconstruction, and image analysis, integrated with the world's leading microscope systems
 - Used to be named MicroBrightfield

Other Federal Funding Sources

➤ Broad Agency Announcements

- Broad topic areas seeking technologies that meets government needs
- Used for basic and applied R&D
- One use is follow-on funding for SBIR/STTR Ph II
- For DoD invokes use of Technology Readiness Levels (TRL)
- Submit white paper on technology
- Must be invited to submit full proposal
- Mostly used within DoD

➤ Standard Invitation for Bid (IFB) and Request for Proposal (RFP) process

- The other 97.5% of federal contracting requirements
- Vermont Procurement Technical Assistance Centers can advise and guide

Maine Technology Institute's SBIR/STTR Assistance Program

Technical Assistance Program

Phase 0 Grants

Business Accelerator Grants
Phase I up to \$15,000

Business Accelerator Grants
Phase II up to \$50,000

Development Loans, Equity Capital Fund

Technical Assistance Program

- MTI offers pro bono SBIR/STTR Phase I & II Proposal Development Assistance
 - Phase I/II – Advise & guidance in developing the proposal including tech editing/reviewing
 - Phase I/II – Financial guidance for developing indirect cost rate, budget and initial award support
 - Phase II – Same as above and adds market research support as well as commercialization plan development

- SBIR/STTR Technical Assistance is offered on an on-going basis year-round

FINALLY.....

If we knew what we were doing, it wouldn't be called research, would it?"

Albert Einstein

Trust that little voice in your head that says "Wouldn't it be interesting if..";
And then do it.

Duane Michals

You do not really understand something unless you can explain it to your
grandmother

Albert Einstein

Thank You and Good Luck!

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For More Information on the Maine Technology Institute's
SBIR/STTR Assistance Program
www.mainetechnology.org

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