



NSF Webinar Presentation

Small Business Innovation Research (SBIR)

Phase I Solicitation FY-2014: [NSF 13-546](#)

Small Business Technology Transfer (STTR)

Phase I Solicitation FY-2014: [NSF 13-547](#)

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The overview webinar presentation is available at:
http://www.nsf.gov/eng/iip/sbir/Webinar/SBIR-STTR_Spring_2013.jsp



Award Information

- Type of Award & Award Amounts
 - SBIR: 6 month; not to exceed \$150,000
 - STTR: 12 months; not to exceed \$225,000
 - SBIR and STTR Phase II not to exceed \$750,000
 - Fixed-price grants
 - SBIR characteristics:
 - Two thirds of the work must be done by the small business
 - Balance of work may be done by others
 - STTR characteristics:
 - Minimum of 40% of research done by the small business
 - Minimum of 30% of research done by research institution.



Eligibility Information

- **Organization Requirements:**
 - Proposals only may be submitted by companies that qualify as a small business
 - For-profit business
 - Fewer than 500 employees
 - Located in the US
 - >51% owned and controlled by US individuals (*>50% ownership by VC or private equity firms and hedge funds is not allowed for NSF funding*)
 - *No more than 2 proposals per company during this cycle (cycle includes both SBIR 13-546 due June 11 and STTR 13-547 due June 13)*



Eligibility Information

- **Principle Investigator (PI) Limit:**
 - Primary employment of the PI must be with the small business at the time the award is made
 - Defined as 51% (of a 40 hour work week) or greater
 - The PI must commit at least 1 calendar month to the SBIR Phase I project
 - The PI must commit at least 2 calendar months to the STTR Phase I project
 - No more than 1 proposal per Pi, or Co-PI



Key Additional Eligibility Info

- FastLane registration for company and PI required (www.fastlane.nsf.gov)
- Dun and Bradstreet Data Universal Numbering System (DUNS) number required - including subawardees (www.dnb.com)
- System for Award Management (SAM) registration required (www.sam.gov)
- Small Business Administration (SBA) Company Registry registration required (<http://sbir.gov/registration>)



Proposal Preparation and Submission

SBIR Proposal submission window:

May 11 – June 11, 2013

SBIR Deadline: June 11, 2013

STTR Proposal submission window:

May 13 – June 13, 2013

STTR Deadline: June 13, 2013

Due by 5:00 pm Proposer's Time



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Award Information

- Estimated Number of Awards (pending availability of funds)
 - SBIR: 200 (\$30,000,000 - pending availability of funds)
 - STTR: 50 (\$11,250,000 - pending availability of funds)
 - No obligation to make a specific number of awards



The SBIR/STTR Program

- Intended to stimulate technological innovation in the private sector
- Primary goals:
 - Strengthen the role of small business in meeting Federal research and development needs
 - Increase the commercial application of federally-supported research results
 - Encourage participation by socially and economically disadvantaged, and women-owned, small businesses



NSF's SBIR/STTR Program

- Seeks to fund transformational, game-changing technology
- Strong focus on commercialization
- Powerful translation tool
- High-leverage for post-academic effort
- Encourages ties to private sector



STTR Specific Information

- The STTR Program requires researchers from non-profit research institutions to play a significant role in the project
- This STTR aims to encourage the commercialization of NSF-funded fundamental research
 - It is highly desirable that the core innovation has NSF funding lineage, which should be documented in the proposal
 - Investigators of the NSF-funded fundamental research are not required to be a part of the proposed project



SBIR Specific Information

- Small Business must perform at least 2/3 of the research, as determined by the budget
- Consultants and/or subawardees may perform up to 1/3 of the research, as determined by the budget



STTR Specific Information

- Organization Requirements:
 - Collaboration with a research institution is required
 - A minimum of 40% of the research must be performed by the company, as measured by the budget
 - A minimum of 30% of the research must be performed by the collaborating research institution, as measured by the budget



Other Important STTR Specific Requirements

- Cooperative Research Agreement (CRA)
 - A signed CRA between the small business and the research institution is required at the time the award is made
 - A model (example) agreement is available on our [website](#)
 - Proposal should contain a draft of the CRA, or a letter stating that the CRA will be provided



Prior to Submission

- Communicate with the Program Director
 - Preferred method – e-mail
 - Send 1 e-mail!
 - Send 1-2 page summary that discusses:
 - Company/team (including experience with previous SBIR awards)
 - Market Opportunity
 - Technology/innovation
 - Competition



Proposal Guidelines

- Phase I
 - Feasibility and proof-of-concept research focus
- Phase II (must receive a Phase I award to be eligible to submit a Phase II proposal)
 - Prototype development and testing research focus



Proposal Guidelines

- Successful proposals
 - Provide evidence of a commercially viable product, process, device, or system
 - Meet an important social or economic need



Resubmission Guidelines

- Revise proposal addressing weaknesses and suggestions captured in the Review Panel Summary
- Resubmit in next (or subsequent) SBIR solicitation cycle
- No special process; resubmitted proposals are reviewed and compete with new proposals



Topics

- Four broad topic areas:
 - Biological and Chemical Technologies (BC)
 - Education Applications (EA)
 - Electronics, Information and Communication technologies (EI)
 - Nanotechnology, Advanced Materials, Manufacturing (NM)



Subtopic Description

- Biological and Chemical Technologies (BC):
 - Biological Technologies
 - Biomedical Technologies
 - Environmental Technologies
 - Chemical Technologies



Subtopic Description

- Education Applications (EA):
 - Pre-College Education
 - College and Post-College Education
 - STEM Educational Gaming
 - Entrepreneurial Education
 - Tools for Learning and Assessment



Subtopic Description

- Electronics, Information and Communication Technologies (EI):
 - Services: Security & privacy; search & mining; digital arts; financial
 - Applications: Mobile; collective intelligence; design/test; virtualization
 - Systems: HCI; robotics; wireless; instruments; energy management
 - Components: MEMS; sensors; optoelectronics; RF; packaging
 - Devices: Optoelectronics; IC design; other novel devices



Subtopic Description

- Nanotechnology, Advanced Materials, and Manufacturing (NM):
 - Nanomaterials, Nanomanufacturing, Nanodevices, and Nanoinstrumentation
 - Electronic, Optical, and Magnetic Materials
 - Materials for Energy Generation and Storage
 - Structural Materials, Coatings, and High-Temperature Materials
 - Sustainable Materials and Smart Materials
 - Manufacturing Equipment and Processes



Funding Criteria

- We fund high-risk, high-payback innovations
 - With the high potential for commercialization
 - That demonstrate strategic partnerships with research collaborators, customers, industry partners, and equity investors
- We do NOT fund
 - Basic research
 - *Evolutionary* optimization of existing products and processes or modifications to broaden the scope of an existing product, process or application
 - Analytical or “market” studies of technologies



Merit Review Criteria

- Intellectual Merit - Quality of the Research
 - A sound approach for establishing technical and commercial feasibility
 - Qualified technical team
 - Sufficient access to resources
 - Significantly advances “state-of-the-art”
- Broader Impact – Potential impact on society
 - Commercial and societal benefits
 - Marketable product
 - Commercialization track record
 - Business expertise
 - Intellectual Property/Other Competitive advantages



Merit Review Criteria

- Commercialization Potential:
 - The company's strategic vision
 - The addressable market opportunity
 - Is this an enabling technology
 - The company/team
 - Business and commercialization experience
 - The product features and benefits compared to the competition
 - Financing and revenue model
- Positioned to attract additional investment



Doing Business with NSF

- NSF is not the Final Customer; NSF is not buying your product
- NSF has broad market-driven technology topics: **You identify the problem/opportunity, propose the technological solution, and devise your business strategy**
- NSF wants to see you **commercialize** your research successfully
- NSF provides incentives to encourage you to find investment \$\$ (Phase IB and Phase IIB Supplemental funding)



Top Reasons to Seek SBIR Funding

- Provides funding for technologies on a path toward commercialization
- Provides “pre-seed” funding to demonstrate proof-of-concept
- Not a loan/no repayment
- Provides validation, recognition, visibility
- May be leveraged to attract investment/partnerships
- Allows small business to retain IP
- Values/encourages/facilitates partnerships, which enable success



Guide to Proposal Submission

A step-by-step user guide is available for entering a SBIR or STTR Phase I proposal in NSF's FastLane system. PLEASE USE IT!

http://www.nsf.gov/eng/iip/sbir/documents/Phase_I_Proposal_Preparation_Booklet.pdf

You must register your company and PI in FastLane prior to submitting your proposal, a process that could take 3-5 days.



Guide to Proposal Submission

Compliance requirements are clearly described beginning on Page 6 of the Solicitation 13-546.

All proposals that fail to address the following items will be considered non-responsive and will be returned without review:

- 1. A proposal submitted after 5:00 p.m. (proposer's/submitter's local time) on the deadline date. The "proposer's time" is the time zone associated with the company's address, as registered with NSF at the time of proposal submission.**



Proposal Compliance Screening

- 2. A proposal that does not contain all the required components uploaded into the appropriate module within FastLane.** See the required components below that make up a complete proposal. All proposals must have each of the items listed below, without exception.



Compliance Screening Cont'd

- A complete proposal consists of the following:
 - Project Summary
 - Project Description
 - References Cited
 - Biographical Sketches
 - Budgets and Sub-Awardee Budgets*
 - Budget Justification (include letters from sub-contractors and consultants, 3 page limit is waived for SBIR/STTR)
 - Current & Pending Support*
 - Facilities, Equipment and Other Resources*

* *Templates provided in FastLane. All documents listed above are **REQUIRED**.*



Compliance Screening Cont'd

3. ONLY the items listed below may be included in the **Supplementary Documents** module:
- Company Commercialization History on NSF template (required if company received previous Phase II award/s)
 - Data Management Plan
 - SBA Company Registration documentation
 - Letters of Support (maximum 3 – do not upload letters from subcontractors or consultants here)
 - Post-Doc Mentoring Plan*
 - IRB or IACUC letters

** Only required if funds are budgeted on line B.1 Post Doctoral Scholars of a university sub-awardee budget.*



Compliance Screening Cont'd

Other compliance issues:

- SBIR proposal budget may not exceed \$150K
- Do not put proposal documents in the “Additional Single Copy Documents” module
- Do not submit “collaborative” or “preliminary” proposals to NSF SBIR/STTR Program
- Proposal must have sufficient technical and commercial potential substance to justify review*
- Proposal must fall within scope of the solicitation topic*
- Proposal must contain research in science, engineering, or education*

* *Determined by Program Director and Senior Advisor*



Compliance Screening Cont'd

**100% COMPLIANCE REQUIRED
OR PROPOSAL WILL BE
RETURNED WITHOUT REVIEW**