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Frequently Asked Questions (FAQs) for Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs

HOW APPROPRIATE IS NSF SBIR/STTR FUNDING FOR A COMPANY/PROJECT?

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PROPOSAL REVIEW

PHASE I AWARD AND BEYOND

1. **What are SBIR and STTR? What are the differences and which is more appropriate for my project?**

   The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs are both Congressionally-mandated research and development (R&D) funding programs intended to support small businesses focused on bringing innovative technology to the marketplace. At NSF, both programs have identical philosophies, review criteria, processes, and award dollar amounts, and the two programs have similar success rates. The difference between SBIR and STTR programs at NSF is that small businesses which apply to the STTR program are **required** to partner with a not-for-profit research institution in their proposal. Such a partnership is optional for SBIR proposals.

   We recommend that potential applicants choose between these programs by determining which set of budget requirements (see Question 44) is more appropriate for their envisioned R&D effort.

2. **What are the funding priorities for NSF SBIR/STTR?**

   The NSF SBIR/STTR portfolio is divided into broad technology areas, which are listed here: https://seedfund.nsf.gov/portfolio/. However, this list is NOT exhaustive. A small business has the freedom to pursue any technology and market area (with the exception of drug development). NSF SBIR/STTR proposal review does NOT take into account how well a proposal fits into a topic. Rather, Phase I proposals are evaluated based on the merit review criteria listed here: https://seedfund.nsf.gov/resources/review/peer-review/. The program seeks to support innovative, high-risk and high-impact R&D projects with a strong case made for commercialization.

3. **What is the best way to gauge whether or not a research and development (R&D) project is innovative and technically challenging enough to be funded by the NSF SBIR/STTR program?**

   NSF SBIR/STTR seeks to fund R&D that involves a high degree of technical risk. It is a good sign if the R&D has never been attempted and/or successfully done before or is attempting to overcome significant technical hurdles. Innovation takes different forms in different fields. If this is a significant question that will determine whether or not you will submit a proposal, the best approach is to send an Executive Summary to an NSF SBIR/STTR Program Director (see Question 18) and specifically ask for guidance as to whether or not the project seems to meet the technical merit review criteria.

4. **What activities and expenses are appropriate to be funded on a Phase I NSF SBIR/STTR project? What activities and expenses are not permitted?**

   NSF SBIR/STTR funding is for research and development (R&D) only. Generally, NSF SBIR/STTR funding can be used for salary and wages for company employees, associated fringe benefits, materials and supplies, and a number of other direct costs needed to carry out the proposed R&D. As appropriate, NSF SBIR/STTR projects may also fund consultants to the project and subawards

to partner institutions. Some types of indirect costs that are necessary for the small business to carry out the project are also appropriate.

NSF SBIR/STTR Phase I funds cannot be used for business development, marketing and sales, production, patent costs, or any activity unrelated to the research and development of your technology (either as direct or indirect costs). Equipment purchases are not permitted on a Phase I award but are permitted in Phase II. Please consult the solicitation for more information.

5. **Can NSF SBIR/STTR fund work on a product that has already been developed? Can the program fund small businesses to execute their business plan?**

   NSF SBIR/STTR funding is for R&D only. The aim of a Phase I project should be to demonstrate the technical feasibility of the proposed innovation and thereby bring the innovation closer to commercialization. If the idea has been already proven to be technically feasible and capital is required simply to perform analytical testing on the product, execute the business plan, and/or begin manufacturing, the project is NOT a good candidate for NSF Phase I SBIR/STTR funding. Non-incremental innovations to an existing product might be appropriate if the innovation will **significantly** enhance commercial outcomes and if the small business must undertake R&D with a great degree of technical risk in order to achieve those outcomes. Projects that focus on incremental improvements on existing products will not be funded.

6. **Must Phase I NSF SBIR/STTR proposers submit preliminary data as part of the proposal?**

   Preliminary data are not required for NSF SBIR/STTR Phase I proposals. However, in many cases, preliminary data can strengthen the case that the small business could demonstrate technical feasibility with the proposed Phase I research and development.

7. **Are new small businesses (start-up companies) appropriate candidates for the NSF SBIR/STTR program?**

   Yes. NSF encourages proposals from a diversity of small businesses. In fact, most NSF SBIR/STTR Phase I awards are made to companies that are newly formed and very small. Companies with no current revenues and/or minimal history of operations are encouraged to apply. However, those small businesses must show that, if NSF SBIR/STTR funding is awarded, they have a clear plan to quickly stand up the company operations and bring together a team that is capable of carrying out the proposed Phase I project. Conversely, companies with significant history will be evaluated based on their track record of prior technology development and commercialization.

8. **Are first-time entrepreneurs appropriate candidates to participate in the NSF SBIR/STTR program?**

   NSF encourages proposals from a diversity of entrepreneurs - new and seasoned. What is most important is that the team is committed to bringing the technological innovation to market. The lack of a commercialization track record does not disadvantage a team, as long as the proposers can

show a path to successful commercial outcomes. Many NSF SBIR/STTR grantees are first-time entrepreneurs.

9. **What is the expected outcome (deliverable) of a Phase I project?**

The aim of the Phase I project should be to demonstrate the technical feasibility of the proposed innovation and thereby bring the innovation closer to commercialization. Typically, an expected outcome of a Phase I project is not a product that is fully ready for market launch. The R&D outcomes that can best demonstrate technical feasibility vary widely based on the technology area and the particulars of the project.

The required deliverable at the end of an SBIR Phase I grant is a report that summarizes the project's technical accomplishments. Phase I outcomes take many forms depending on the technology area and stage of the research. Outcomes could be proof-of-concept data, a prototype, analytical/testing results of the product under development, etc.

The Phase I R&D work is intended have high technical risk, therefore, it is understood that not all projects will achieve the desired technical outcomes. However, projects that are successful are in a better position to obtain follow-on funding, including an NSF SBIR/STTR Phase II grant. This is because a Phase I project should aim to de-risk the technical aspect or aspects of the innovation that are most important to future commercial success.

10. **Is there a "fast-track" option to skip to Phase II? Is there an option to apply for Phase I and Phase II simultaneously?**

Small businesses must receive a Phase I award before applying for a Phase II award at NSF.

11. **Are examples available of recently-funded NSF SBIR/STTR Phase I proposals and/or awards?**

Companies and projects funded by NSF SBIR/STTR can be explored on the portfolio page here: https://seedfund.nsf.gov/portfolio/. Company names and project titles and abstracts for recently funded Phase I awards in each topic area are provided on the topic webpages that are linked to from this page: https://seedfund.nsf.gov/awardees/phase-1/. NSF SBIR/STTR does not provide sample proposals.

12. **May a small business submit multiple Phase I proposals during the same submission cycle?**

No. A given small business may only submit ONE proposal to the same deadline (note that each deadline generally includes both an SBIR and an STTR solicitation). This requirement is intended to allow applicants to focus on submitting one strong proposal that best aligns with the commercial goals of their business and the NSF SBIR/STTR review criteria.

13. **What are the chances of receiving an NSF Phase I SBIR/STTR award?**

In fiscal year 2016, the Phase I funding rate was 15% for SBIR and 19% for STTR. Phase II funding rates typically vary between 30% and 55%. Although funding rate is a common question, generally, these data should not be relied upon too heavily in making a decision whether or not to submit a proposal. The possibility of receiving an award increases significantly with the fit of the project for the program and quality of the project and commercial opportunity proposed. Rather than focus on funding rate, proposers are encouraged to ensure that NSF SBIR/STTR is a good fit for their needs and that the proposed project aligns well with the program goals.

14. **Can NSF SBIR/STTR fund work on products whose target customers will be in the defense sector, or whose customers or end users are government entities?**

NSF SBIR/STTR does not dictate which markets or customers small businesses may serve. However, if an intended customer for the solution developed under the SBIR/STTR grant will be the Department of Defense (DOD), the Department of Homeland Security (DHS), or the National Aeronautics and Space Administration (NASA), proposers should consider applying through the SBIR/STTR programs at those respective agencies (DOD - http://www.acq.osd.mil/osbp/sbir/; DHS - http://www.dhs.gov/science-and-technology/sbir; NASA - https://sbir.nasa.gov/). Those agencies, and some others, focus on the acquisition of solutions developed under the SBIR/STTR program. The submission of an identical or overlapping proposal to both NSF and another agency is possible (see Question 16), if a project seems like it could be appropriate for both NSF and another agency.

15. **Both NSF and NIH fund biomedical/health projects through the SBIR/STTR program. How are the programs different? Can a small business apply to both programs?**

Generally, NSF SBIR/STTR funding is not aimed at supporting clinical trials, the clinical validation of information technologies or medical devices, or studies that are performed primarily for regulatory purposes. Limited studies with human subjects may be acceptable to the extent that they are performed in support of feasibility, proof-of-concept studies of early-stage technologies.

More specific guidance on what is funded through NSF SBIR/STTR in the biomedical and biological technologies spaces can be found on the topic pages for Smart Health (https://seedfund.nsf.gov/portfolio/#smart-health-sh) and Biomedical Technologies (https://seedfund.nsf.gov/portfolio/#biomedical-technologies-bm) and Biological Technologies (https://seedfund.nsf.gov/portfolio/#biological-technologies-bt). These topics and subtopics are NOT restrictive but give a general sense of the types of proposals solicited.

Another way to explore what is typically funded under NIH and/or NSF is via the Award Search at SBIR.gov, which reports on all SBIR/STTR awards, regardless of the agency under which it was funded.

Finally, the submission of an identical or overlapping proposal to both NSF and NIH SBIR/STTR is possible (see Question 16). If more guidance is necessary to decide whether or not to submit a proposal, proposers are encouraged to contact the appropriate NSF SBIR/STTR Program Director (see Question 18).

16. **May a small business submit identical or overlapping proposals to NSF SBIR/STTR and**

another federal agency?

Proposers may submit overlapping proposals to different agencies, but NSF will not make **awards** that duplicate research funded by, or anticipated to be funded by, other agencies. It is very important to note potential overlap on the cover page of the NSF proposal. **If a proposer fails to disclose that another Federal Agency has received this proposal (or an equivalent or overlapping proposal) on the proposal cover page, the proposer could be liable for administrative, civil, or criminal sanctions.**

If a proposal is selected for award by NSF and another agency, the cognizant agencies will work together to determine which agency will fund the work. Sometimes, the project scope and/or budgets will be adjusted if both projects will be funded in order to ensure that no portion of the work is double-funded. However, NSF SBIR/STTR will not co-fund a single proposal with any other agency.

17. **If a proposing small business elects to partner with a university or research institute as part of an STTR Phase I proposal, must the partner also be part of that Phase II proposal?**

First, proposing small businesses are welcome to partner with a university or research institute for SBIR, not just STTR. See Question 51 or the solicitation for budget requirements that may help determine which program is more appropriate.

For Phase II STTR, proposing small businesses must have a research partner, similar to Phase I. However, the research partner does not have to be the same partner that was a subawardee on the Phase I STTR effort.

If a Phase I STTR awardee does not wish to work with a research partner for Phase II, they may submit a Phase II proposal to the NSF SBIR program instead.

18. **What options are available for pre-submission feedback, and what should be expected from this feedback?**

Sometimes, a small business reviews the information on the NSF SBIR/STTR website and in the current solicitation and is able to determine whether or not to submit a Phase I proposal. Small businesses with questions or a need for more advice about whether to submit may complete our short executive summary form - a program director will get back to you shortly. The summary should discuss: the company and team; the market opportunity, value proposition, and customers; the technology/innovation; the competition; and the key technology risks to be addressed by the project. This summary should not include highly proprietary information (though its contents will not be shared outside NSF). The Program Directors will be able to answer questions and provide feedback to help determine whether or not the project is a good fit.

19. **What other reasons are there for a small business apply to NSF SBIR/STTR?**

Like applying for any funding, be it angel investment, venture funding, state funding, etc., applying for NSF SBIR/STTR funding takes time and energy. However, there are significant benefits beyond

the equity-free R&D funding:

- Valuable feedback from technical experts and commercial reviewers for every proposal received through NSF's merit review process. Even proposers who do not receive a Phase I award can benefit from the process. All applicants receive detailed feedback from NSF's expert technical and commercial reviewers, and this information may positively impact the direction of the technology development as well as the company business model.
- A "stamp of approval" when NSF has funded a Phase I or Phase II project as NSF's recognized peer review process gives confidence to investors and partners as to the novelty and innovation of the underlying technology and technical approach.
- Follow-on funding: Only Phase I awardees may apply for a Phase II award, which is up to $750,000. Once a small business has obtained a Phase II award, it is eligible to apply for additional awards that could approach $1.5 million in total funding, including some of the supplemental opportunities available to Phase II awardees.
- Mentoring and training provided by the Program Directors and program workshops in Phase I and Phase II add value above and beyond the R&D funding.
- Access to a network of startups and small businesses.

ELIGIBILITY

20. **Must the proposing legal entity be formed at the time of the Phase I proposal submission?**

    The proposing small business should be a legal entity at the time of proposal submission. A legal entity is required to complete all of the necessary registrations. Phase I applicant small businesses, however, need not have commenced company operations at the time of submission.

21. **Does NSF SBIR/STTR support non-U.S. companies or work that is performed abroad?**

    SBIR/STTR eligibility guidelines state that the majority (more than 50%) of a small business' equity (e.g. stock) must be directly owned and controlled by one or more individuals who are U.S. citizens or permanent residents of the United States. Additionally, NSF SBIR/STTR only supports work that is performed in the U.S. (including work performed by subawardees and consultants).

22. **What defines the Principal Investigator (PI) role on an NSF SBIR/STTR Phase I grant? What are the responsibilities of the PI? Does the PI need to have a PhD? Can the PI be a graduate student?**

    The PI is often the technical lead on the project. However, another leader on the project may be named as PI as long as he or she is capable of tracking and communicating technical progress on the award. The PI is responsible for communicating with the cognizant Program Director and staff during the course of the award and monitors the performance of the project to assure adherence to performance goals, time schedules or other requirements as appropriate to the project or the terms of the grant. The PI is also responsible for submitting required reports to the NSF.

    The PI is NOT required to have a PhD or any other degree. Graduate students and post-doctoral researchers are eligible to be the PI on an NSF SBIR/STTR Phase I proposal. Many PIs have no graduate training.

However, the PI MUST be **more than 50 percent legally employed** by the proposing small business by the time of the award and for the entire duration of the Phase I project. NSF normally considers a full time work week to be 40 hours and considers employment elsewhere of greater than 19.6 hours per week to be in conflict with this requirement. Additionally, anything that prevents an individual from meeting this legal employment requirement (including residency status or university policy) will make that individual ineligible to be PI.

In addition, the PI must commit a **minimum level of effort to the project described in the application** (not to be confused with the greater than 50% employment requirement). The minimum level of effort for the PI is one person-month per six months of project duration.

23. **May a faculty member at a college or university serve as the Principal Investigator on an NSF SBIR/STTR project?**

    In most cases, employment as a faculty member at a college or university conflicts with the primary employment requirement for the PI of an SBIR/STTR project (see Question 22). However, in some cases, the college or university can grant a leave of absence or otherwise indicate that the faculty member is permitted to be employed more than 50% of their time employed by the small business.

PROPOSAL PREPARATION AND PROPOSAL SUBMISSION VIA FASTLANE (NSF'S ELECTRONIC SUBMISSION SYSTEM)

24. **When will the next SBIR/STTR solicitation be published?**

    There are no guarantees on when solicitations will be published, but for the last several years, NSF SBIR/STTR Phase I solicitations have been published twice per year. One solicitation is published in March, with a June deadline, and another is published in September, with a December deadline. The minimum amount of time between the publication of the solicitation and the deadline for proposals will be 90 days.

25. **What are the first steps that a first-time proposer to the NSF SBIR/STTR program should take?**

    Once you've decided to submit a proposal, we recommend that the small business complete four required registrations: FastLane, DUNS, System for Award Management (SAM) and SBIR Company Registry.

    1. A DUNS and Employer Identification Number (EIN) are required for FastLane registration.
    2. Register the small business AND the PI in FastLane, NSF's electronic submission system (https://www.fastlane.nsf.gov). For help in determining who should be the PI on the project, see Question 21. Registering in FastLane allows you to see the proposal submission, with the modules that correspond to different parts of the application. Taking a look early will help you better understand the information available on the "Apply" page: https://seedfund.nsf.gov/apply/.

       Please note that NSF SBIR/STTR proposals must be submitted via FastLane and will NOT be

accepted via Research.gov or Grants.gov.

3. Register the small business in the System for Award Management (SAM): https://www.sam.gov/.
4. Register with the SBIR Company Registry. See the "Registrations" page for more details: https://www.sbir.gov/registration.

Lastly, letters of support from outside individuals or organizations are an important part of the proposal. However, these letters take time to obtain. Proposers are recommended to start obtaining these letters as early as possible. See Question 47 for more information.

26. **What is the NSF Proposal & Award Policies & Procedures Guide (PAPPG)? Some guidelines in the NSF PAPPG are not spelled out in the NSF SBIR/STTR Phase I solicitation or conflict with information in the solicitation. Which policy document should I follow?**

The NSF Proposal & Award Policies & Procedures Guide (PAPPG) contains NSF's general proposal preparation and submission guidelines. The SBIR/STTR programs have solicitations that modify the general provisions of the PAPPG, and, in such cases, the guidelines provided in the SOLICITATION must be followed.

The SBIR/STTR Phase I solicitations include MANY instructions that deviate from the PAPPG. As such, the solicitations strive to include, as much as possible, the rules and guidelines that proposers should know in order to submit a proposal, referencing the PAPPG when necessary.

27. **What are the rules or restrictions regarding contact with NSF SBIR/STTR Program Directors? Must a small business form a working relationship with a Program Director before submitting a proposal?**

Small businesses are permitted to contact the NSF SBIR/STTR program directors at any time. However, program directors become increasingly busy as each proposal deadline approaches, so small businesses are strongly encouraged to contact them as early as possible, if they wish to seek guidance on submitting their proposal. If a small business does choose to engage a NSF program director, please do not contact multiple program directors in parallel without notifying them.

However, there is absolutely no requirement to form a working relationship with a program director prior to submission. Additionally, ALL proposals that pass the initial screening for completeness undergo a rigorous peer review and will be considered for award.

28. **Is help available for navigating FastLane or troubleshooting proposal submission problems?**

The FastLane Step-by-Step Guide is a great first resource: https://seedfund.nsf.gov/fastlane/.

As a reminder, if this guide and the solicitation conflict, the solicitation rules apply.

For advanced questions and troubleshooting, the FastLane Help Desk is another resource and can be reached at 1-800-673-6188 (available 7 am to 9 pm Eastern time). NSF SBIR/STTR staff can be

helpful regarding the contents of the proposal, but the experts for technical issues with FastLane are the FastLane Help Desk staff.

29. **What if there are changes or updates after a proposal is submitted (but before the deadline)? Does NSF SBIR/STTR review proposal materials as soon as they are submitted?**

NSF SBIR/STTR does not start processing or viewing proposals until after the deadline date. If a proposal is submitted before the deadline date and needs to be updated (also before the deadline date, proposers may perform a Proposal File Update (PFU). Instructions are located in the FastLane Guide (https://seedfund.nsf.gov/fastlane/). See "Proposal File Update."

30. **What rules must be followed to ensure that a proposal passes the initial administrative review for completeness and continues on to the peer review process?**

Please see the "DOs and DON'Ts list" in the current Phase I solicitation.

31. **If the System for Award Management (SAM) indicates that it will take several weeks for a proposing business's registration to be complete, what should the business do?**

If the SAM registration for a company is not active by the NSF SBIR/STTR Phase I submission deadline (or does not match exactly the other company information registered in FastLane), the proposer will receive a warning when trying to submit a proposal. The proposer should continue past that warning, as it will NOT stop submission. The small business should continue to pursue SAM registration once the proposal submission is complete, because an active SAM registration is required to receive an award.

32. **How does a proposer know that he or she has successfully submitted an NSF SBIR/STTR Phase I proposal?**

When a proposal has been received by NSF, the proposer will receive a proposal number that is seven digits long and starts with the last two digits of the current federal government fiscal year. For example, proposal numbers for proposals submitted from October 1, 2016 to September 30, 2017 should be seven digits long and begin with "17".

If the final proposal number has not been given, it is likely that the PI submitted the proposal but has not yet performed the final step, which is to forward to the small business's Authorized Organizational Representative (AOR)/Sponsored Research Officer (SRO), who signs and submits the proposal. Instructions for this step can be found in the FastLane Step-by-Step Guide: https://seedfund.nsf.gov/fastlane/.

33. **How can proposers check on the status of a Phase I SBIR/STTR proposal after it has been submitted?**

The listed Principal Investigator (PI) on a given proposal can log in to Fastlane, (http://www.fastlane.nsf.gov/jsp/homepage/proposals.jsp) and click "Proposal Functions", then

"Proposal Status." Proposals and their statuses will be listed. Navigating to an individual proposal will enable proposers to view reviewer comments, when they are available.

PROPOSAL BUDGET PREPARATION

34. **What is a reasonable salary for the PI and other personnel on the project?**

The best way to ensure that salary requests are appropriate is to justify proposed salaries that do not exceed the median levels based on Bureau of Labor Statistics (BLS) Wage Data for the same geography and job title. More information on using BLS Wage Data can be found here: https://www.bls.gov/bls/blswage.htm.

35. **Can I list a Co-PI on an NSF SBIR/STTR proposal?**

NSF SBIR proposals do NOT have Co-PIs. Proposals may include subawardees, but they should not list a Co-PI. NSF STTR proposals, MUST have a subawardee research institution, with a Co-PI from that institution listed on the cover page and on the subaward budget.

36. **How should indirect costs be structured for a Phase I SBIR/STTR project if the proposing small business does not have an established indirect cost rate?**

Small businesses without an established indirect cost rate are recommended to make an estimate based on itemizing and estimating specific indirect costs that it expects to incur during the Phase I project. Common types of indirect costs are rent, utilities, some types of insurance, and other company expenses that are not directly required by the NSF project but are necessary for the overall operation of the business. It is recommended that small businesses without an established indirect cost rate keep their request for indirect costs and fringe benefits at or below the "safe rate" (i.e., total indirect costs plus fringe do not exceed 50% of total direct salaries and wages).

37. **Can a person be listed on the budget as a subawardee (or consultant) and also on the main budget?**

In general, no person should request funds (or financially benefit) through more than one institutional affiliation for a single NSF SBIR/STTR project. Therefore, individuals with a financial interest in the proposing small business (this includes company equity holders or projected employees) cannot request funds through a subaward budget or as a consultant. In rare cases, this requirement might prove unusually burdensome; therefore, it is possible to grant an exception, only if recommended by the Program Director and approved by the Division Director for the Division of Industrial Innovation and Partnerships.

38. **May I budget a subaward to a federal lab or Federally-Funded Research and Development Center (FFRDC)?**

Yes, FFRDCs and federal labs are eligible to be subawardees. A list of FFRDCs is located at: https://www.nsf.gov/statistics/ffrdclist/.

39. What types of costs can be requested on a subaward budget?

A subaward budget (sub-budget) may request funds on the same lines as are permitted for the main project budget, but with two main exceptions. First, if the subaward is to a research institution, the sub-budget may contain a request for funds for Postdoctoral Scholar(s) in Line B.1, Other Personnel (whereas the main budget cannot). Second, subaward budgets may NOT contain funds on Line K, which is used for a fee that may only be requested by the proposing small business in the main budget.

40. May proposers submit a proposal with more than one subaward (sub-budget?)

Proposers may request funds for multiple subawards, as long as the requirements about total budget allocations are met (see the solicitation). For each subaward you request, a full subaward budget must be prepared, with an accompanying subaward budget that explains and justifies the subaward costs with the same level of detail as the main project budget.

41. How does NSF define a project participant as a consultant (line G.3 of the budget)?

Consultants (also referred to as "contractors") are persons who will work on the project, but who are not employees of the company. Consultants typically do not receive a W-2 tax form from the small business, and are often used to provide a specific service or skill based on hourly or daily compensation. Consultant services include specialized work that will be performed by professionals that are not employees of the proposing small business. Purchases of analytical services, other services, or fabricated components from commercial sources should not be listed under consultant services and should instead be reported in the budget under Other Direct Costs/Other (Line G.6). No person who is an equity holder, employee, or officer of the proposing small business may be paid as a consultant unless an exception is recommended by the Program Director and approved by the Division Director for the Division of Industrial Innovation and Partnerships. All research on an SBIR project, including that conducted by consultants, must be carried out in the U.S.

42. What are the budget requirements for consultants?

Each consultant included in the budget should provide a signed commitment letter, to be included in the budget justification, stating a) what they will specifically be doing in the project; b) the number of hours or days that they are committing to the project; and c) the agreed-upon level of compensation which is not to exceed the NSF maximum of $1,000 per day (NSF defines a day as 8 hours). The budget justification must address how the consultant effort will contribute to the project. The biographical sketch of each consultant should also be included as part of the "biographical sketches" section of the proposal. If the company wishes to compensate a consultant at a higher rate, it must supply the additional funding from sources outside the NSF grant (and should explicitly state this in the budget justification).

43. If other R&D will be performed by the proposing small business, in parallel to the NSF SBIR/STTR-funded research, should those efforts be described in the proposal?

The funds provided by an NSF SBIR/STTR Phase I project are rarely sufficient to bring a new product to market. The NSF SBIR/STTR project focuses on specific technical goals that must be met in order to ensure the commercial success of the product or service under development. Therefore, an NSF SBIR/STTR proposal should primarily address the R&D effort proposed with the NSF funds only. Other R&D that may be performed with or funded by partners can be mentioned briefly, but the R&D plan should concentrate on only NSF-funded work.

Any resources at the disposal of the small business or volunteered by the small business itself but will not be compensated via the Phase I award may be listed in the Facilities, Equipment, and other Resources section of the proposal if proposers are concerned about the appearance of cost sharing.

44. **How much of the NSF-funded research and development must be performed by the awardee? (In Phase I and Phase II)?**

These requirements differ for SBIR and STTR awards. For Phase I SBIR awards, a minimum of **two-thirds (66%)** of the R&D, as measured by the budget, must be performed by the awardee. For Phase II SBIR projects, a minimum of **one-half (50%)** of the R&D must be performed by the awardee. For Phase I and Phase II STTR projects, a minimum of 40% of the R&D, as measured by the budget, must be performed by the small business, and a minimum of 30% of the R&D, as measured by the budget, must be performed by the partner research institution.

PROPOSAL REVIEW

45. **What criteria are used to evaluate NSF SBIR/STTR proposals?**

All NSF proposals are reviewed for Intellectual Merit and Broader Impact. In addition, SBIR/STTR proposals have a set of additional criteria covering Commercial Impact. For more information on what this means for SBIR/STTR proposals, please see the following webpage: https://seedfund.nsf.gov/resources/review/peer-review/. The merit review criteria are also listed in the solicitation document.

46. **Who evaluates NSF SBIR/STTR proposals? What does the review process entail?**

In Phase I, technical reviewers with expertise in the field of research being proposed and/or the target market area proposed are asked to confidentially review the proposals. These technical reviewers always possess technical training and expertise in relevant areas of science, engineering, or technology. The Phase I review process relies heavily on input from these technical reviewers, with some reviewers having a mix of commercial and technical expertise. Dedicated commercial reviewers are sometimes asked to participate on Phase I panels. In addition, SBIR/STTR Program Directors with relevant technical and commercial expertise lead this process, and also directly help evaluate the technical and commercialization details of each proposal.

In most cases, similar proposals are typically placed into groups of 4-18 called a "panel." A group of three to 10 external reviewers is assigned to a panel, with each proposal being reviewed by at least three of these reviewers. The reviewers read their assigned proposals and provide feedback, and

then all of the reviewers meet in person at NSF or via video conference or conference call to discuss all of the proposals in the panel.

In many cases, applicants still in consideration for an award will be contacted directly by NSF staff following this external review, with additional questions or concerns for the applicant to address.

The Phase II process is similar, but a greater amount of time and effort is dedicated to the evaluation and discussion of each proposal. Additionally, each Phase II proposal generally is assigned to more reviewers. In Phase II, in addition to the technical reviewers, a minimum of two commercial reviewers review each proposal, paying particular attention to the commercialization plan.

47. **How does NSF manage confidentiality and conflicts of interest during the peer review process? What can proposers do to ensure that their proprietary information is kept safe?**

NSF proposals are considered confidential. They are not made public and are not considered a public disclosure. Proposals are kept within NSF staff and the external reviewers, who certify that no conflicts of interest are present and that they will keep the proposal documents and review contents confidential (see the Conflict of Interest form on the peer review page at: https://seedfund.nsf.gov/resources/review/peer-review/).

SBIR/STTR data are protected from disclosure by the participating agencies for a period of not less than 4 years from end of the relevant Phase II award (or the relevant Phase I award, if no follow-on Phase II award is granted). The protection period is extended with each subsequent related award or supplement in order to avoid harmful disclosure. The SBA has a full set of FAQ items that address data rights here: http://www.sbir.gov/faq/data-rights.

Even when SBIR/STTR data are no longer under the mandatory protection, NSF still does not generally release proposal information publically. One exception occurs in the event of a Freedom of Information Act (FOIA) request, which is a rare occurrence. Any sections of the proposal marked as proprietary will not be made available to the requestor, so it is important to mark sensitive sections of the proposal as clearly proprietary. In the event of a FOIA request, if the NSF is still able to contact the SBIR/STTR small business, there is a second opportunity for the business to redact proprietary information from the proposal. Because of the nature of this process, proposers are asked NOT to mark the entire proposal as proprietary.

48. **How important are letters of support? What does a strong letter of support contain?**

Letters of support are extremely important for both Phase I and Phase II proposals. Letters of support are often intended to help convince the reviewers that the proposed innovation, if developed, would solve a real market need. More generally, letters of support help validate claims made in the proposal about commercial impacts. Therefore, letters from potential end users of the technology (customers) and corporate partners/collaborators are appropriate. Letters from actual or potential investors can also help. Proposers are recommended to start early in trying to obtain these letters.

49. **Some NSF SBIR/STTR companies build on basic research that was also funded by the NSF. Are companies that are proposing projects that are NOT related to NSF or any federal funding at a disadvantage?**

No. All proposals are evaluated according the merit review criteria, and only the best proposals are funded. NSF seeks to understand how basic research, and in particular NSF-funded research, can lead to technological innovation and potentially commercialization. Therefore, proposers are encouraged to provide information about the scientific research that has led to the proposed innovation. For both SBIR and STTR, proposals based on NSF-funded basic research are welcomed. A solid base in fundamental research lends credibility to the intellectual merit of the proposal. NSF "lineage" alone (or lack of it) should not dramatically alter the fate of a proposal.

50. **When does NSF release proposal decisions? What feedback is provided?**

The schedule and pace of NSF SBIR/STTR Phase I peer review is affected by many factors. However, several general guidelines are provided below for proposals that undergo peer review. Proposers whose proposals did not pass the administrative review, and therefore are not sent to the panel review stage, may learn of this decision earlier in the process (this decision is called "return without review").

2-4 months after the deadline date - Proposers, especially those in consideration for funding, may be contacted by the Program Director any time after the panel if the panel or Program Director have questions that must be answered in order for the proposal to be fairly and completely evaluated. This process of interaction with the Program Director is called "due diligence".

4-6 months after the deadline date - Phase I proposals that are chosen for award or have been declined will receive their official notification. All proposals which undergo the full merit review process will be notified of the decision and will receive anonymous written reviews that can contain helpful information on how the proposal could be improved. If the reviews are unclear or more information is desired to be able to resubmit in the next cycle, proposers may contact the Program Director that managed the review process to ask for clarification and guidance.

6-7 months after the deadline date - Phase I awards begin. Proposals submitted in June will have a start date (first funds disbursed) no later than January 1 of the next year. For December proposals, the start date is typically no later than July 1 of the next year. Many Phase I proposals will start up to six weeks earlier than these dates (i.e. as early as mid-May or mid-November).

51. **What if the company's R&D goals, business model, team, or vision change during the Phase I review period?**

Applying to NSF SBIR/STTR should not change the strategy of a small business or slow down its progress. If, during the Phase I review process, a small business makes progress on some of the technical objectives or challenges that are included in a Phase I proposal that is recommended for award, the program will typically work with the proposer to update the work plan and objectives for the Phase I project. It is very rare for a Phase I award to be jeopardized because a proposing small business has continued to conduct R&D in parallel with the Phase I review process. However, we encourage all applicants to update NSF staff of any significant changes in company status, team,

or technology, if contacted by NSF during the review process.

52. **How does the NSF weigh the two major SBIR/STTR review criteria, Intellectual Merit and Broader/Commercial Impacts, during the review process?**

Intellectual Merit and Broader/Commercial Impacts are equally important for the purposes of making award recommendations.

PHASE I AWARD AND BEYOND

53. **What are the conditions of an NSF Phase I SBIR/STTR award?**

NSF SBIR/STTR award conditions can be found here: https://www.nsf.gov/awards/managing/special_conditions.jsp in the section at the bottom of the page. The headings at the top of the award conditions show topics of interest, like Patent Rights, Payment Schedule, and Reporting Rights.

54. **What if there are changes to the business model or R&D strategy of a small business during the Phase I NSF SBIR/STTR project?**

NSF SBIR/STTR understands that small businesses, especially those in the very early stages of development, may undergo business model changes. This may include choosing a different niche market, a different product format, etc. During Phase I, NSF SBIR/STTR works with grantees to adjust (within reason) the Phase I project objectives, work plan, and budget to reflect changes in the market understanding and business model. However, changes to a Phase I project that completely shift the focus of the project away from the initially proposed core innovation are generally not permitted. Additionally, NSF SBIR/STTR will not support alternative R&D if the work no longer meets the Phase I program standards for high technical risk.

55. **Does NSF SBIR/STTR have a Phase III?**

Some agencies that run acquisition-based SBIR/STTR programs, such as the Department of Defense, feature Phase III. In this phase, the agency chooses to enter into another agreement with the company to continue R&D related to the project. This project must be supported by non-SBIR/STTR funds.

NSF does not acquire technologies that are developed under the SBIR/STTR program and therefore does not offer a Phase III program.

NSF does offer Phase II grantees a number of supplemental opportunities, including a chance at up to $500,000 in additional funding under the Phase IIB program, which matches third-party investment or product/service revenues that derive from the NSF-supported project(s). See more on all these opportunities here: https://seedfund.nsf.gov/resources/awardees/supplement/overview/