

The federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs are two exceptional funding resources set aside exclusively for small U.S.-based businesses engaged in the research and development of innovative technologies with strong commercial potential. The two programs have many similarities in their structure and operation, but they also have a number of important differences. The table below presents each of these programs and highlights differences that will help applicants choose the right program.



NOTE: Agencies often make changes in their programs. Applicants should not assume the information presented below will remain the same from year to year. Each solicitation must be reviewed carefully for current instructions.

	SBIR	STTR
Use of Program Dollars	To fund R&D and commercialization of innovative technology of mutual interest to company and government.	To fund R&D and commercialization of innovative technology transferred to company from university/government lab and requiring continued major involvement of lab personnel/facilities. May also be used in non-tech transfer situations by companies requiring greater levels of expertise and/or facilities.
Eligible Applicants	U.S.-based, for-profit businesses with <500 employees (including affiliates). Company must be 51% owned by individuals (with a few exceptions involving VC ownership).	
Participating Agencies	All federal agencies that spend >\$100M annually for extramural (outside) R&D: DOD; DOE; HHS/NIH; NSF; NASA; USDA; DOT; EPA; DHS; Education; Commerce (NIST & NOAA only)	All federal agencies that spend >\$1B annually for extramural (outside) R&D: DOD; DOE; HHS/NIH; NSF; NASA
Funding Source	2.5% tax on extramural R&D budget → ~\$2.3 billion annually. Tax due to increase to 3.2% by 2017.	.3% tax on extramural R&D budget → ~\$200 million annually. Tax due to increase to .45% by 2017.
Research Partner	Not required, but strongly encouraged, especially university connections	Non-profit Research Institute partner required as subcontractor
The SBIR and STTR are structured in three phases: Phase I-Feasibility, Phase II-R&D, and Phase III-Commercialization		
Phase I-Feasibility	Purpose: to prove technical and sometimes commercial feasibility of technology	
Award amount	Up to \$225K, varies by agency	Up to \$225K, varies by agency
Project term	Typically 6-9 mos., depending on agency	Up to 1 year, depending on agency
\$ to awardee company	At least 2/3rds stays with company	At least 40%
\$ to subcontractors or consultants	total of no more than 1/3 of award	At least 30%, but no more than 60%
Phase II-R&D	Purpose: to perform more in-depth R&D leading to prototype	
Award amount	Up to 1.5M, varies by agency	Up to 1.5M, varies by agency
Project term	Up to 2 years	Up to 2 years
\$ to awardee company	At least 50% stays with company	At least 40%
\$ to subcontractors OR consultants	Up to 50% of award	At least 30%, less than 60% of award
Phase III-Commercialization	Purpose: commercialization of technology – bringing the product or service to market	
Award amount	No SBIR/STTR funds available. Most agencies regard commercialization as responsibility of small business. Technologies for which agency is buyer (e.g., DOD; NASA; DHS) may receive commercialization support using non-SBIR/STTR funds.	

IDENTIFYING AN APPROPRIATE TOPIC

<http://www.zyn.com/sbir/scomp.htm> is a great website for tracking and accessing SBIR and STTR solicitations including release, proposal acceptance and closing dates. The tables on this page reveal that HHS/NIH, DOE, and NASA typically issue their SBIR and STTR solicitations as a single solicitation, with applicants able to choose whether to submit either an SBIR or an STTR proposal. In comparison, DOD and NSF issue STTR solicitations separate from and at different times than their SBIR solicitations.

In NASA, NSF, and DOD, the STTR topics are much different than those in the agencies' SBIR offerings. For instance, even though NASA issues its SBIR and STTR solicitations simultaneously, some topics are designated for SBIR only, while others are STTR only. NSF typically focuses its STTR solicitation on just one broad topic area, rather than the multiple broad topic areas typically featured in SBIR.

WHEN TO CHOOSE STTR

STTR is ideally suited for use in transferring technology from the required Research Institute (RI) partner to the applicant company, where the funding supports the R&D and subsequent commercialization of the technology. In most of these cases, the RI's technical expert can serve as a Co-PI, if not the sole PI on the project. The STTR program can also be used by a company that requires specialized expertise and/or facilities that only the RI partner can bring to the table.

Many factors need to be considered when deciding whether to pursue STTR vs. SBIR:

- the timing of the two programs
- the available topics
- the available funding for Phase I and II projects (STTR and SBIR funding levels not always the same)
- the role of the RI and the need for its unique resources
- the need for additional consultants/subcontractors beyond the RI (because STTR allows up to 60% of the award to go to the RI and other consultants/subcontractors vs. 33 1/3% for SBIR)

Applicants should also not be misled by the fact that STTR (~\$200 million) is much smaller than SBIR (\$2.3 billion) in terms of dollars and awards. These differences cause many applicants to disregard STTR as not being worthwhile, which actually increases the odds of funding for those companies that do apply to STTR. Indeed, a recent analysis indicates STTR Phase I applicants may have as much as a 30% chance of being funded vs. just 15-20% for SBIR under the increased funding made available through the 2012 reauthorization of these programs.

CONTACTING THE AGENCY

Depending on the agency, STTR topics may or may not be released with adequate background information on what the agency is actually seeking. Potential applicants who have identified a promising STTR opportunity are strongly encouraged to communicate with the agency's designated point-of-contact (POC) to learn more about the agency's expectations relative to that topic.

A good way to approach the POC is by sending a 1-2 page write-up on the technology and scheduling a follow-up phone discussion. This write-up should begin with a clear, concise statement of the problem to be addressed and then describe (a) the company, (b) the team and its credentials, (c) the technology being proposed and its innovation, (d) what the end product will be, who will buy it and why, an estimated number of buyers, and how the end product will reach the market, and (e) the competition. Following the phone communication with the POC, the applicant should know whether the technology to be proposed is a good fit to the topic.

PREPARING/SUBMITTING THE PROPOSAL

The purpose of the STTR proposal is to provide sufficient information to persuade the review team the proposed technology is a unique and sound solution to the need expressed in the topic. The proposal should be written at a level suitable for publication – i.e., no typos, poor word usage, editorial errors, etc. There are many ways applicants can enhance their chances of success:

- **Start early.** *Many aspects of the proposal can be planned and even drafted well before an agency releases its solicitation. Most agencies allow access to past solicitations, which are valuable sources of information on proposal-preparation instructions. Becoming familiar with the agency's program requirements early, which includes addressing the many necessary registrations, means the applicant can move much faster once the new topics are released.*
- **Pre-plan the project.** *Before anyone starts writing, applicants should meet with an MTIP counselor to ensure the planned project is a good fit for STTR. If so, the counselor will also help define the objectives to be achieved in each phase of the project, make sure the proper proposal format is being used, and provide guidance on responding to each section of the proposal. Careful thought should be given to any needed consultants and/or subcontractors, with the understanding that these individuals should be selected in part to strengthen the team's credentials. Also, the project should be vetted against any special considerations identified under the targeted topic area, as well as against the agency's review criteria.*
- **Read the detailed instructions thoroughly!** *All STTR agencies have specific requirements for font size and style, page limits, marking confidential information, and other aspects of the proposal. Agencies routinely reject proposals that don't comply with these instructions. One person on the proposal team must be responsible for reading the instructions thoroughly and highlighting all major and minor requirements. Each solicitation will likely have new requirements, which are typically highlighted in webinars on the agency's website.*
- **Allow time for an MTIP review of the draft proposal.** *Regardless of the applicant's experience with STTR, this outside review helps ensure the proposal is responsive to the instructions. Even the most experienced applicants have a tendency to get "off point" as they're working through the details of so many sections. The outside review helps catch this drift and ensures the discussion stays focused and "on point." Invariably, good outside reviews identify meaningful ways in which to enhance both the content and the presentation of the proposal. There is strong evidence that MTIP's involvement in the proposal-preparation process significantly improves the chance of funding.*
- **Submit early.** *In pre-planning the project and proposal, applicants should plan to submit their proposals at least two days prior to the final due date. Early submission avoids the possibility of server overload, which has hampered agencies in the past. It also gives applicants ample time to resolve any problems that arise during the electronic submission process.*

READY FOR THE NEXT STEP?

This SBIR guide has been prepared by the Montana Technology Innovation Partnership (MTIP) and does not imply endorsement from the Small Business Administration. A program of the Montana Department of Commerce, MTIP provides free coaching to Montana technology-based companies seeking help in applying to federal and state R&D and commercialization funding programs. For more information, contact the MTIP Program Manager at (406) 841-2749 or visit MTIP's website at www.mtip.mt.gov.

