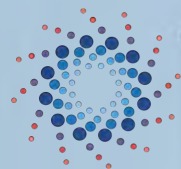




sbtcdc



SBIR · STTR
America's Seed Fund™
POWERED BY SBA

SBIR/STTR 12-WEEK PROPOSAL PLANNING GUIDE

Week 1: Due Diligence

- ❑ **Connect with an SBTDC Technology Commercialization Counselor to schedule a confidential, one-on-one strategy discussion.**

If you have already been working with the SBTDC, reach out directly to your counselor.

If you are new to the SBTDC, complete this form: <https://sbtcdc.org/become-a-client>

In the form, be sure to say that you are seeking assistance with SBIR/STTR. This will allow us to direct you to the appropriate counselor.

Completing this form is the first step to plug into our unique and local ecosystem. Working with the SBTDC is confidential and no-cost.



- Review the differences between **Small Business Innovation Research (SBIR)** and **Small Business Technology Transfer (STTR)**.

	SBIR	STTR
Subcontracting	Maximum of 33% in Phase I 50% in Phase II	40% Minimum with Small Business 30% Minimum with Research Institution
Principal Investigator (PI) Employment	> 50% with Small Business	Either with Research Institution or Small Business (Check Solicitation)
Program Size	\$3.53 Billion (as of FY 2020)	\$485 Million (as of FY 2020)
Majority VC Ownership	May be allowed by: 1. HHS (CDC, NIH) 2. DoD (DAR-PA, Air Force, Army, Navy) 3. DoEd	Same as SBIR
Participating Agencies	11 Agencies	6 Agencies (including USDA, not mentioned on sbir.gov)

- Review the differences between **SBIR/STTR grants** and **contracts**.

Contract Agencies	Grant Agencies
<ul style="list-style-type: none"> DoD, NASA, DHS, DoT, EPA, DoEd, some HHS/NIH Agency establishes plans, protocols, and requirements Highly focused topics Procurement mechanism More fiscal requirements Invoiced on progress Buying agreement between a buyer (agency) and seller (your business) 	<ul style="list-style-type: none"> NSF, DoE, USDA, NIST (DoC), NOAA (DoC), HHS/NIH PI establishes approach, not the agency Less specific topics Assistance mechanism More flexibility Upfront payment Funds a public purpose and best research efforts

- Understand timelines for each solicitation. Each agency follows a unique schedule of solicitation release and proposal submission dates.

See: <https://www.americasseedfund.us/resources>

Week 1: Due Diligence

- ❑ **Examine past award data on sbir.gov.**
 - Go to “Portfolio,” and the default search should be “Award Data.”
 - This tool allows for searching by keyword, agency, year, state, etc.

Have any of the awards been given to a company similar to yours?

YES	NO
Consider applying for SBIR/STTR funding.	Try a different agency or go to step 1 in “Weeks 2-3.”

- ❑ **Research solicitations on the agencies’ websites (ex: NSF, DoD, NIH, etc.)**
 1. Go to <https://www.americasseedfund.us/resources> to find all participating agencies.
 2. Click on each agency’s website to find open solicitations.
 3. You can also find 1-pagers and pitch decks for quick overviews of each SBIR/STTR agency.
 4. Do any of the solicitations match your work?

YES	NO
Consider applying for SBIR/STTR funding.	Try a different agency.

- ❑ **Understand the outline and formatting requirements for your proposal.**

If these instructions are not explicitly followed, your proposal will be deemed unresponsive.

- ❑ **Set a deadline to submit your proposal 2-3 days before the proposal due date.**
 - This will allow time to fix any errors that may arise.
 - The agency website may be down on the submission date, so it is better to submit early.

- ❑ **Register your business.**

- All agencies require these three registrations:
 1. [Unique Entity Identifier \(UEI\)](#)
 2. [System for Award Management \(SAM\)](#)
 3. [Small Business Administration \(SBA\)’s Company Registration](#)
- Different agencies may have additional registrations required.
 1. See agency website for more information.
 2. The process can take several weeks, so *the earlier you start, the better!*

Week 1: Due Diligence

□ Understand the different phases of the SBIR/STTR funding program

Phase I (approx. 6-18 months)

- Establish the technical feasibility of your proposed R&D by developing a prototype and/or conducting “proof of concept” studies
- 10%-20% award rate
- Approx. \$50K-\$300K (depending on the agency)

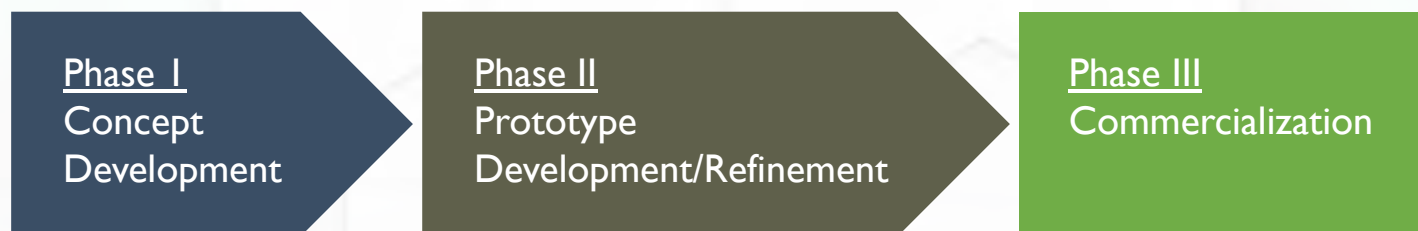
Phase II (approx. 24 months)

- Continue R&D efforts from Phase I while still establishing technical feasibility
- Proposals often include a 15-page commercialization plan (see pg. 10 for more information)
- 30%-40% award rate
- Approx. \$750K-\$1M+ (depending on the agency)

Phase III

- Non-SBIR/STTR funding (such as government contracts) that come from some SBIR/STTR agencies
- Used for companies to commercialization objectives
- *Not all SBIR/STTR agencies offer this funding*

SBIR/STTR agencies like the NIH, DOD, and Department of Education offer [Direct to Phase II](#) opportunities, and many agencies also offer [Fast Track](#) programs (submitting Phase I and II proposals together).



Weeks 2-3: Working Up to the Proposal

□ Contact program managers.

- *Note:* For NSF and DoE, use the pre-application process instead of directly contacting program managers. (see page 6)
- Contract agencies offer a specific window of time following pre-release of their solicitation.
- Be prepared to briefly discuss your work and commercialization goals.
- Draft appropriate questions.
 1. Consider the agency as the customer of your proposal.
 2. Ask questions to make sure that the R&D that you plan to carry out fits well with the mission of the agency.
- It's a good idea to submit a one-page overview of your research aims (aka "aims page") or quad chart to the program manager prior to a call.
 1. You can find a quad chart template in Appendix A.
 2. If applying for NIH SBIR/STTR funding, you can find a specific aims page template in Appendix B.
 3. An aims page or quad chart will give the program manager an understanding of the proposed R&D work prior to your call.
- Search for contacts on your agency of interest's website.
 1. Send emails or call the program managers.
- Got everything you needed?

YES	NO
Proceed to the next step.	Keep drafting and asking questions.

Weeks 2-3: Working Up to the Proposal

❑ “Pre-Apply” for Phase I (if applicable).

- Search for any “pre-application” requirements in your agency of interest before proposal submission.
 1. For example, the National Science Foundation (NSF) requires that you submit a [Project Pitch](#) before being invited to apply for Phase I
 2. You will hear back approximately one month after pitch submission, so you will have to wait before moving on.
- The Department of Energy (DoE) requires a [letter of intent](#) (LOI) prior to Phase I.

If you submitted an NSF SBIR/STTR project pitch or DOE SBIR/STTR LOI, did you get invited to submit a Phase I proposal?

YES	NO
Proceed to the next step	Review feedback and resubmit when appropriate.

❑ Build your team.

- Make sure that your team has expertise in each area of research and analysis that you will be proposing. Be sure to think critically about technical gaps.
- Register each member on D&B, SAM, SBA Company Registration, etc (see page 4)
- Collect and/or edit biographies for each member.

❑ Identify 3-4 objective reviewers.

These should be a mix of technical experts with backgrounds in the area of research that your proposal is focused on.

1. Who within your team can review?
1. Who outside your team can review?
1. Reach out to confirm their availability/interest in reviewing the proposal.
1. Give them a date when you will send the proposal to them so they can block time on their calendar.
1. Be sure that you send to them at least three to four weeks before the submission deadline to allow them enough time to review and you will have enough time to implement changes.

❑ Establish dates to complete sections of the proposal.

Prioritize!

- Which sections require the most time to complete?
- Which sections require less time?
- Unsure? Seek guidance from a team member and/or advisor.

Weeks 4-5: Start Your Proposal

- ❑ **Decide SBIR or STTR.**
- ❑ **Define roles for each team member.**

Is anyone serving as a consultant or subcontractor?

YES	NO
They should prepare letters of commitment.	Move on to the next step.

Understand the difference between a consultant and a subcontractor as it pertains to SBIR/STTR.

CONSULTANT	SUBCONTRACTOR
<ul style="list-style-type: none"> ○ An individual. ○ Subject matter expert. ○ Is not using organization's facilities. ○ Usually bills by the hour. 	<ul style="list-style-type: none"> ○ An entity (business, institution, etc). ○ Provides goods and services to SBIR/STTR project.
SUBCONTRACTOR CONTRIBUTION LIMITS	
SBIR	STTR
<ul style="list-style-type: none"> ○ Phase I: up to 33% ○ Phase II: up to 50% 	<ul style="list-style-type: none"> ○ 40% min. with small business ○ 30% min with research institution

- ❑ **Start getting letters of support.**
 - Number of letters needed depends on the agency.
 - Letters can come from:
 1. Key opinion leaders.
 2. Potential or actual investors.
 3. Strategic partners.
 4. Future customers or end-users.
 5. Collaborators.
 - Letters should demonstrate at least one of the following:
 1. Technology feasibility.
 2. Interest in investing in the future.
 3. Interest in collaboration.
 4. Interest in using your technology.
- ❑ **Start drafting the proposal.**

Remember to prioritize!

 - Which sections require the most time to complete? Start with those sections.

Weeks 6-7: Continue Your Proposal

- ❑ **Continue writing your proposal.**
- ❑ **Start working on your budget.**
 - Remember: Guidelines for SBIR are different than those for STTR.
 - Make sure you understand:
 1. Direct vs. Indirect Costs
 2. Allowable vs. Non-Allowable Costs
 - Include a budget narrative and justification.
- ❑ **Work on bio-sketches for each team member.**
- ❑ **Make sure you receive letters of commitment and letters of support.**

These letters are very important for your application!



Weeks 8-9: Commercialization Plan and “Pre-Review”

☐ Put together a commercialization plan.

- Are you submitting a Phase I proposal?

YES	NO
Prepare a short commercialization plan/commercialization strategy section (if needed).	Follow instructions for Phase II or skip this step.

- You could first fill out a business model canvas (see Appendix C). This could serve as an “outline” for your commercialization plan/strategy.
- “Translate” what you wrote in your business model canvas to full sentences for your commercialization plan.
- Requirements (content and page limit) could vary by agency.

- Are you submitting a Phase II proposal?

YES	NO
Prepare a more comprehensive commercialization plan (check agency’s requirements for page limit, if applicable)	Follow instructions for Phase I (see left) or skip this step.

- Update your business model canvas (BMC), if needed.
- Requirements (content and page limit) vary by agency.

☐ After you complete your commercialization plan:

- Send a preliminary draft of your proposal to 3-4 objective reviewers (identified in week 2).

Weeks 10-12: Wrap-Up

- ❑ **Review and finalize your proposal.**
 - Send a more polished proposal draft to 3-4 objective reviewers (identified in week 2).
 - Make any necessary changes.

- ❑ **Start uploading all the necessary documents at least 3 days before the deadline.**

Make sure each document is uploaded to the right section.

- ❑ **Celebrate!**

Congratulations on submitting your SBIR/STTR proposal!

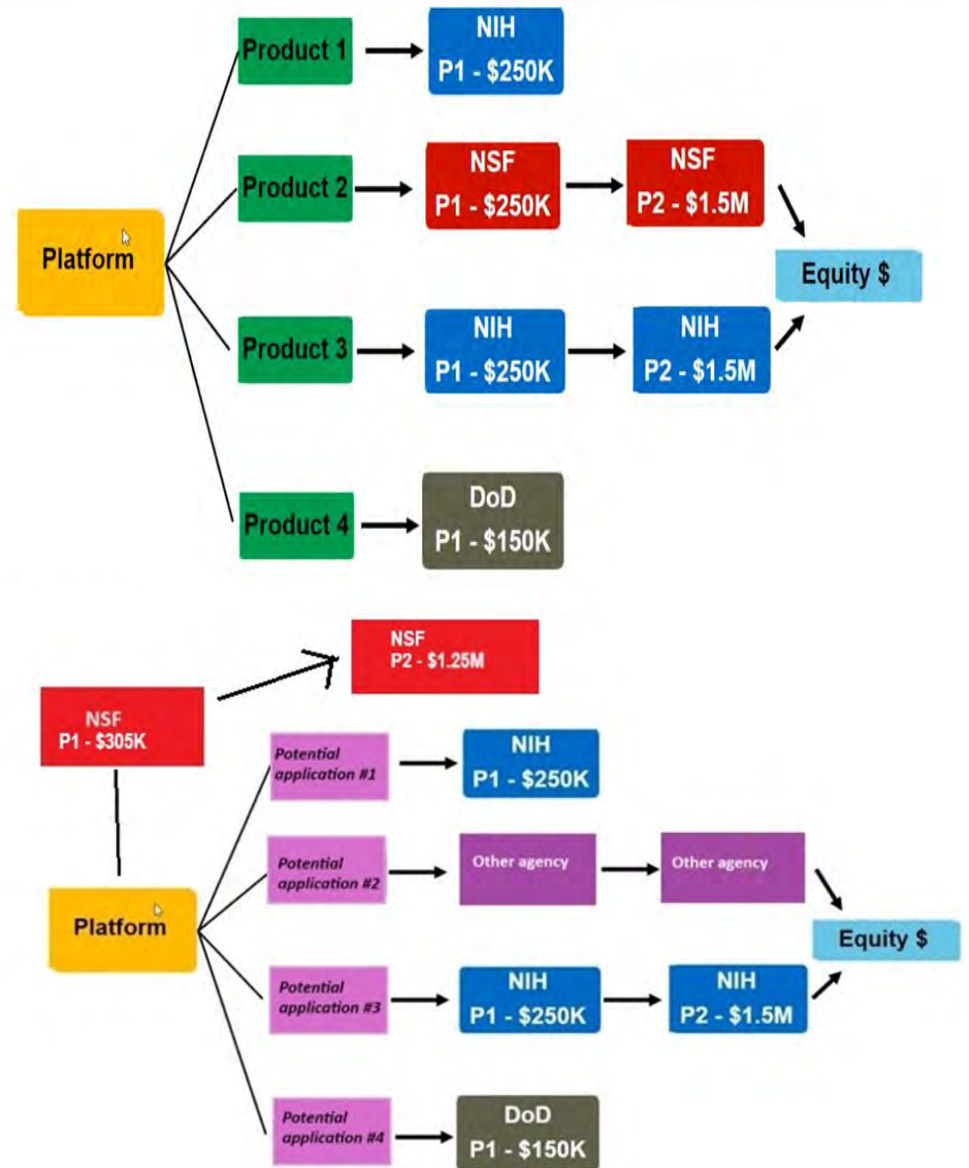


Additional Resources and Support

SBIR/STTR Multi-Product Submission Strategy

It is important that you have a platform technology that allows you to create multiple products and/or services. This way, you can apply for multiple SBIR/STTR agencies or have multiple products/services for one SBIR/STTR agency. This increases your chances of receiving the necessary funding for R&D. After receiving R&D funding through SBIR/STTR, you will have the traction for receiving equity funding in the future from angels, VCs, etc.

The diagram on the top right can often be reimaged as the one below it. This reimaged diagram highlights that funding for the “platform” development comes from the NSF SBIR/STTR program.



Additional Resources and Support

One NC Program, TABA, and Other Support

1. [One North Carolina Small Business Program](#)

Please Note: Program funding is limited and changes on an annual basis, so there may not always be a guarantee of funding availability.

- **Incentive Program**
Provides funding to reimburse for paid expenses associated with proposal preparation. See solicitation for specific eligibility criteria.
- **Match Program**
Matches Phase I funding up to a certain amount. See current solicitation for specific eligibility criteria.

2. [Technical and Business Assistance Program \(TABA\)](#)

This is a great opportunity to receive additional commercialization funding from an SBIR/STTR. Keep in mind that you must request this additional funding at time of proposal submission.

TABA FUNDING

Agency	Phase I Amount	Phase II Amount
DHS	\$6,500	\$50,000
NIST (Dept of Commerce)	\$6,500	\$50,000
DoD (varies by agency component)	Up to \$6,500	Up to \$50,000
DoE	\$6,500	\$50,000
DoT	\$6,500	\$13,000
Dept. of Education	\$6,500	\$50,000
EPA	\$6,500	\$10,000
HHS/NIH	\$6,500	\$50,000
NASA	\$6,500	\$50,000
NSF	\$6,500	\$50,000
USDA	\$6,500	\$50,000

Additional Resources and Support

❑ Find out if your SBIR/STTR agency has any commercialization support programs.

- For example, HHS/NIH has:
 1. Innovation Corps (I-Corps) Program
 2. Concept to Clinic Commercializing Innovation (C3i) Program
 3. Commercial Readiness Program (CRP)
 4. Regulatory and Business Development Consultations
 5. Partnering and Investment Opportunities
 6. [Learn more about the above programs.](#)
- NSF also has:
 1. The I-Corps Program (see [here](#))
 2. For Phase I awardees (see [here](#))
 - SBIR/STTR Phase I Workshop
 - Beat-the-Odds Boot Camp
 - Commercialization Assistance Program (CAP)

❑ Any more questions on SBIR/STTR? Please see below for helpful resources.

You are welcome to reach out to the SBTDC Technology Commercialization team at any time for proposal reviews and answers to any SBIR/STTR-related questions.

Visit sbtdc.org/services/programs/tech/team to contact a counselor near you.

❑ Helpful Resources:

- [SBIR.gov](https://www.sbir.gov)
 1. General information page for SBIR/STTR
 2. Tutorials on participating agencies, proposal preparations, accounting, etc can be found at <https://legacy.www.sbir.gov/tutorials/>
 3. [Frequently Asked Questions](#)

❑ Sources Used:

- [SBIR.gov](https://www.sbir.gov)
- [SBIR.gov: Commercialization Plan](#)
- [Components of a Winning SBIR/STTR Proposal, Life Sciences](#)
- [Components of a Winning SBIR/STTR Proposal, Physical Sciences](#)
- [SBIR Land: Letters of Support](#)
- [SBIR/STTR Phase I vs. Phase II vs. Phase III](#)

Appendix A: Quad Chart



Company:

State:

Name:

Email:

Phone:

TECHNOLOGY DEVELOPMENT

Technology/Research Overview:

Intellectual Property Protection:

Stage of Development:

Value Proposition:

COMPANY INTRODUCTION

Mission:

Founded:

Number of Employees:

Facility Description:

Product Sales:

RESEARCH NEED

OPPORTUNITY

Need/Problem:

Target Customer:

Market Opportunity:

Appendix B: NIH SBIR/STTR Specific Aims Page



1. Paragraph 1: Describing the Problem

- Medical / health-related problem statement and its significance
- Current solutions, gaps, roadblocks
- Utilize quantitative data to measure the significance

2. Paragraph 2: About Your Product

- Your proposed product
- Why it is an innovative solution to the problem
- Preliminary data that you have collected / R&D that you have conducted that build the foundation for your proposed work in the phase I
- “...therefore [two, three or four] specific aims are proposed:”

3. Specific Aims (use bullets)

- Generally 2 to 3 specific aims in a phase I proposal
- Specific Aim 1
 - Describe the milestone you expect to achieve
 - Months to complete
 - Criteria for success (quantitative if possible)
- Specific Aim 2
 - Describe the milestone you expect to achieve
 - Months to complete
 - Criteria for success (quantitative if possible)
- Specific Aim 3
 - Describe the milestone you expect to achieve
 - Months to complete
 - Criteria for success (quantitative if possible)

4. Paragraph 3

- What does the company expect to achieve in this Phase I collectively considering each of the specific aims?
- What will be the impact if you can accomplish this work?

*You can adapt this template to draft an aims page for other SBIR/STTR agencies including, **and limited to**, DHS, NIST (Dept of Commerce), DoT, Dept. of Education, EPA, NASA, and USDA. DoD prefers the quad chart format, and NSF and DoE have their “pre-application” processes like the project pitch and letter of intent, respectively.*

Appendix C: Business Model Canvas



Business Model Canvas for PowerPoint



<http://www.businessmodelgeneration.com>

Designed by: Business Model Foundry AG

The makers of Business Model Generation and Strategyze

Credits

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Technology Commercialization Team



John Ujvari, Director

John Ujvari directs the NC SBTDC's Technology Commercialization Services team. In his 20+ year tenure, John's primary responsibilities have included advising clients on the effective use of the SBIR/STTR federal funding programs and supporting the innovation ecosystem across the state with over 150

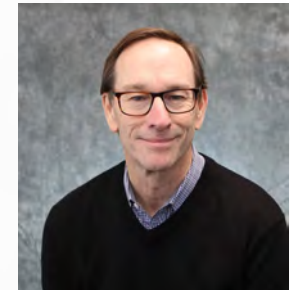
training sessions. He also leads the SBTDC's technology commercialization summer internship program through which over 200 graduate students have been matched with innovation-based businesses for competitive summer engagements.

John is a strong proponent of entrepreneurship and the commercialization of novel technologies. Since joining the SBTDC in 2001, he has contributed to a five-fold increase in SBIR and STTR awards in North Carolina. He holds an MBA from Wake Forest University's Babcock Graduate School of Management and a BA from the University of Virginia.



Andrea Giska

Equity Funding Specialist



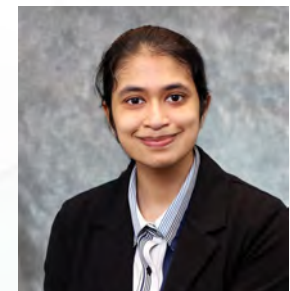
Kevin Nicusanti

Equity Funding Specialist



Connor Steenbock

Business Counselor



Ramya Vijapurapu

Business Counselor