SUNY Startup Summer School: SBIR/STTR 101

- Everyone is muted upon entry

- The chat box is in the bottom right corner, please post questions there

June, 2020

Overview

- SBIR/STTR Basics
- Getting Started
- Structuring & Writing Tips for:
  - Specific Aims / Objectives
  - Commercialization Strategy
  - Research Strategy
  - Letters of Support
  - Budget
- Uploading & Submitting
- Next Steps

Our Team

Sarah Parks, Founder

GIS analysis, ecosystem services valuation, grant writing, project management, capacity building & report writing

Erin Lennox

Grant writing, technical writing, K-12 STEM education, project management

Jaron Kuppers

Grant writing, technical writing, mechanical engineering, report writing, product design, business development, & graphic design
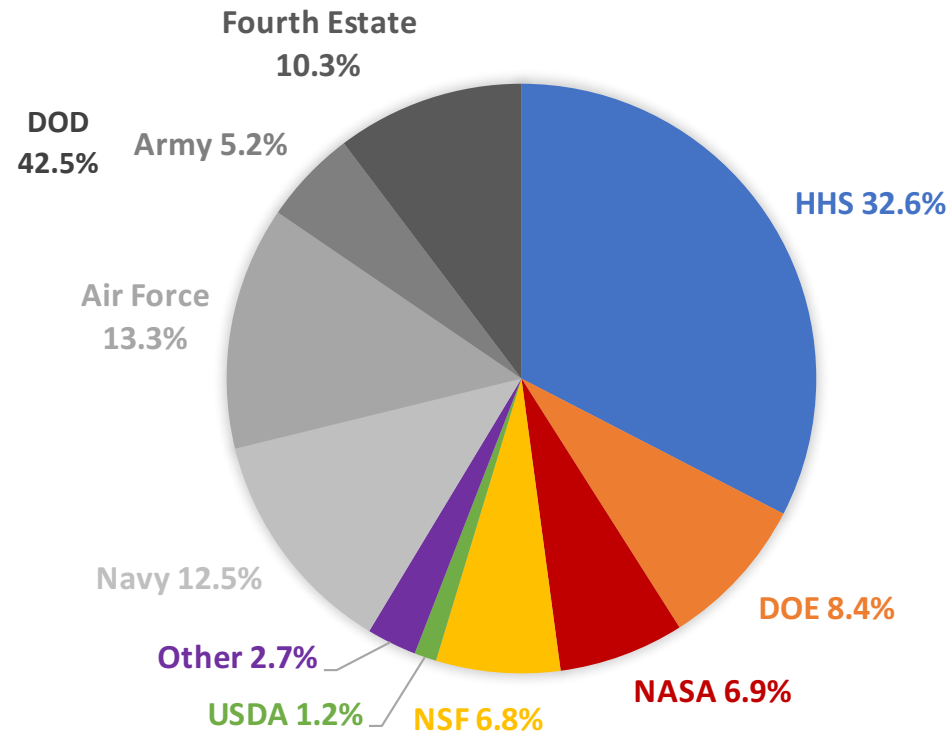
Granting Agencies

○ SBIR & STTR

  > Department of Defense (DOD)
    - Navy, Army, Air Force,
    - Fourth Estate (DARPA, MDA, DHP, CBD, SOCOM, DTRA, DLA, DMEA, and OSD)

  > Department of Health and Human Services (HHS/NIH)

  > National Science Foundation (NSF)

  > Department of Energy (DOE)

  > NASA

Pie chart labels:
- Fourth Estate 10.3%
- DOD 42.5%
- Army 5.2%
- Air Force 13.3%
- Navy 12.5%
- Other 2.7%
- USDA 1.2%
- NSF 6.8%
- NASA 6.9%
- DOE 8.4%
- HHS 32.6%

Granting Agencies

⬦ SBIR Only ('Other')

> Environmental Protection Agency (EPA)
> Department of Commerce (NOAA & NIST)
> Department of Agriculture
> Department of Education
> Department of Homeland Security
> Department of Transportation (DOT)

SBIR vs. STTR

- ## SBIR
  - PI must be primarily employed (>50% of their time) by the small business
  - Partnership with research institution not required, but is allowed (can complete up to 33% of the work)

- ## STTR
  - PI can be employed by either small business or research institution
  - Small business must complete >40% of work, research institution must complete >30%

Phases and Amounts

○ Phase 1: ~$225,000

  ➤ To "establish the technical merit, feasibility, and commercial potential"

  ➤ 6 -12 months (depends on agency)

○ Phase II: ~$1,000,000

  ➤ To: "continue the R/R&D efforts initiated in Phase I"

  ➤ Generally 2 year limit

○ FastTrack: ~$1,150,000

  ➤ Combined Phase I & II application

  ➤ to "bypass a Phase I award if they have already proved the feasibility of their technology"

○ ~~Straight to Phase II: Rarely Recommend~~

Deadlines

Agency	Deadlines*
DOD	Feb, June, Oct
NIH/HHS	Jan, April, Sept
NSF	June, December
NASA	January
DOE	Feb, October

*Deadlines change each year, check solicitations for exact dates

Success Rates & Deadlines

Agency	SBIR		
	Phase I		Phase II
	Success Rate	'Corrected'	Success Rate
HHS	12%	11%	50%
DOE	20%	17%	45%
NASA	26%		42%
NSF	14%		57%
USDA	16%		52%
Navy	19%	14%	76%
Air Force	16%	13%	45%
Army	12%	6%	42%
Fourth Estate	19%	15%	41%

Based on last reported year, 2016 data

Success Rates & Deadlines

Agency	STTR		
	Phase I		Phase II
	Success Rate	'Corrected'	Success Rate
HHS	14%	14%	39%
DOE	18%	16%	46%
NASA	45%		35%
NSF	19%		22%
USDA	n/a		
Navy	35%	30%	73%
Air Force	32%	29%	48%
Army	31%	31%	41%
Fourth Estate	21%	18%	52%

Based on last reported year, 2016 data

Getting Started

◇ Check out the Agency's SBIR/STTR website
  ➢ Determine their deadlines and focus areas
  ➢ Watch their webinars
  ➢ Read past abstracts
  ➢ Determine if there is a good fit
  ➢ Look for 'seeded'/tailored topics

◇ Write your 1 page pitch or letter of intent (LOI)

◇ **Contact your program officer**
  ➢ **Set up a call, and/or submit a LOI**

Structuring and Writing

⬦ Develop your Objectives or Specific Aims
- ➤ Keep it simple and feasible
  - 2-3 aims for Phase I
- ➤ Always be looking ahead to Phase II
- ➤ Make your timeline reasonable (it can take up to a year to get your funding and award results)
- ➤ Stress lineage (or build on your past success)
- ➤ Keep commercialization in focus

Structuring and Writing

- Writing your Research Strategy
  - Present clear deliverables and milestones
  - Be explicit, tell them Who, How, and Where
  - Include risks and mitigation strategies
  - Use your contacts and associations to prove capability
    - Business incubator and maker spaces memberships
    - Mentors
    - Access to campus lab space and specialty manufacturing space
  - Remember you are writing to academic experts in your field
    - Use technical and scientific terms and methods
    - Expect that they will know the norms and methods used for research

Structuring and Writing

○ Develop your Commercialization Strategy
- ➤ Use SUNY Startup resources
- ➤ Show that you know your market & competitors
- ➤ Explain your value proposition
- ➤ Rely on partnerships and letters of support (more later)
- ➤ Demonstrate that you have a business plan
  - Will you license the technology? Manufacture in house? Sell your core IP?
  - How will you deal with IP?
  - What is your exit strategy?
- ➤ What is your Technology Readiness Level?

Structuring and Writing

◇ Know your Audience:
  ➢ Panel consisting of
    - Technical reviewers most likely with expertise in your research area
    - Industry or commercialization experts (less for Phase I)
    - Program directors/managers (with potentially technical and commercial expertise)

Structuring and Writing

⬦ Budget

➢ Think through division of funds between small business, university partner, and outside contractors when developing your research plan

- SBIR: small business must spend 67%
- STTR: small business must spend 40%, university must spend 30%

➢ More details at our Budget Webinar: July 8th

Structuring and Writing

○ Be a 'real' company financially speaking:
- ➤ Shore up your bookkeeping in expectation of Phase II
  - Get an accountant and if necessary a bookkeeper
  - Get professional accounting software
  - Prepare your books as though you are going to be audited
- ➤ Make time sheets
- ➤ Track overhead rates
- ➤ Prepare for an audit
- ➤ NSF now lets you dip into your Phase I budget to pay for some of this!

Letters of Support

- These are very important: Use them wisely
- Each agency has a different number or limit (3 or so)
- Start Early, give a false early deadline
- They must come from a stakeholder (ideally at least one customer stakeholder)
- They must do more than just say "this is a good idea" but should be from people who will be involved in testing, business development, technology development, etc.
- Write them yourselves, speak to:
  - Their merit
  - Your history of collaboration
  - How they will support you

Uploading and Submitting

- Start gathering required numbers and certifications
  - Get your DUNS number
  - Register your Small business
  - SAM (System for Award Management) registration
  - Start your women or minority owned business certification (not required)

- Make your FastLane/eRA Commons/Grants.gov etc… Account Early
  - Fill pieces out as soon as you can
  - Get your business in order
  - Your website should look legitimate

- Allot an entire day to navigating the above websites just for submission

- Help Desks are amazing but not available day of submission generally

Working with Amala

◇ Ready to start writing?
- Reminder to see Kate Baker's presentation
- Attend the Budget Workshop

Common Reasons for Poor Success

- Innovation is not original or scientifically valid
- Ignorance of relevant published work
- Naivety in commercialization/business strategy
- Proposal rife with formatting/grammar/spelling errors
- Superficial, or unfocused research plan (give lots of experimental details!)
- Lack of experience in the proposed methodology
- Proposal scope, timeline, and <u>budget</u> do not mesh
- DOD: Little understanding of jargon and structure
- Bad luck with reviewers…

Don't be deterred by a rejection your first submittal!

Our Services

- Grant Writing and Fund Development
- Capacity Building
- Project Management
- Research and Report Writing
- Business Development
- Content Development
- Graphic Design - Brochures, websites, case statements, logos
- Geographic Information Systems (GIS)/Mapping
- Ecological Economics Projects

Amala Consulting

Questions?

Contact us:

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