

SBIR

“Funding Your Innovations
With Government Money”

Sponsored by:



TECHFORTWORTH

Program

- 10:00-11:00 Getting Started
- 11:00-12:00 The Proposal
- 12:00-1:00 Lunch and Networking
- 1:00-2:00 Submission Process
- 2:00-3:00 Phase I and Beyond

(More or Less...)

10:00-11:00 Getting Started

- <http://www.sbir.gov>
- <http://www.zyn.com>
- <http://www.sba.gov>
- <http://www.dodsbir.net/>
- <http://en.wikipedia.org/wiki/SBIR>

SBIR and STTR

- Small Business Innovation Research
 - 2.5%
 - \$2 billion
 - DoD \$1.23 billion 2009
- Small Business Technology Transfer Program
 - 0.3%

Why Bother?

- Money!
 - \$100K to try out an idea
 - \$750K to build it into a product
- You Get to Keep the IP!
- Decent Chance of Getting Funded

Three Phase Program

- Phase I
 - Feasibility
 - \$70K-\$100K for 6-9 months
- Phase II
 - Principal Research or R&D
 - Deliverable Prototype
 - \$500K-\$750K for up to 24 months
- Phase III

Bidding and Winning

- Phase I
 - Must be US owned small business
 - About 15 percent of bids receive awards
- Phase II
 - Must have successful Phase I
 - Must be invited to bid
 - About 40 percent of bids receive awards
- Phase III

Firm Eligibility

- Small Business mainly operating in US
- 51% or more owned and controlled by US citizens or permanent residents
- Proposing firm must perform:
 - Phase I: At least $\frac{2}{3}$ of the R&D
 - Phase II: At least $\frac{1}{2}$ of the R&D
 - Can sub-contract the rest
- Must use award funds for R&D ONLY

Principal Investigator Eligibility

- Employment
 - Primary (>50%) employment with bidding firm at the time of award, both Phase I and II
 - This means NO Professors
 - Same PI for both Phase I and Phase II
- Qualifications
 - Most agencies require a PhD
 - DoD does NOT

Three Types of Solicitations

- Propose Something Interesting
 - NSF
- Do Research in a Narrow Area
 - NIH, NASA
- Solve My Problem
 - DoD

The Process

- Get Completely Registered
- Find Out When Solicitations are Open
- READ the Solicitation!
- Follow Directions
 - Not following directions gets >50% rejected
- Write a High Quality, Responsive Proposal
- Be On Time
- Keep Submitting

Upcoming Solicitation Dates

- Open Now
 - NOAA, DOT, DOE, NSF, NIH
- Open Soon
 - DoD, NIST
- <http://zyn.com/sbir/scomp.htm>

Phase I Award Types

- Contracts: Do R&D to Solve Agency Problem
 - Agency is often the Phase III customer
- Grants: Do R&D to Solve Your Problem
 - Agency is rarely the Phase III customer
- DoD Strictly Awards Contracts
- NIH, NSF Mostly Award Grants
- Others vary

What It Takes To Win

- Contract
 - A compelling potential solution to Agency's problem
 - Engineering credentials
- Grant
 - Recent, relevant publications in peer-reviewed journals
 - Strong research credentials
- Bid the Max: Selection is Not on Cost

Who Evaluates Your Proposal?

- Contract
 - The same Agency engineers who want the solution
- Grant
 - Independent contract academics

11:00-12:00 The Proposal

- Principal Basis for Evaluation
 - Quality of the Scientific or Technical Content
- Proposed Work
 - Has reasonable chance of meeting objectives
 - Innovative, with potential commercial appl
 - Firm has or can get expertise to do work
- No Classified Proposals
- Primary Focus Here is DoD

Partial Checklist

- Cost Proposal Meets Criteria
- Abstract Has NO Proprietary Information
- Company Commercialization Report In
- Max of 25 pages for EVERYTHING
- At least 10 point fonts

Proprietary Information

- Technical, Financial, Personal, Whatever
- Must Be Properly Marked
- Proposal Will Be Treated in Confidence
- Abstract **WILL BE PUBLISHED!**

Proposal Cover Sheets

- Pages 1 and 2
- Contain
 - Some Reps and Certs
 - Abstract
 - Commercialization Statement
 - Keywords
 - Up to 8
 - A phrase counts as one keyword

The Technical Proposal

- Starts on Page 3
- Has Required Footers, Headers, Margins, etc
- Must Have the Required Sections In the Required Order
- There Are 10 Required Sections

General Tips

- Use lots of pictures and clear illustrations
 - Don't just write “a bunch of text”
- Keep it **SHORT!**
 - Reviewers appreciate brevity and clarity
 - I've Never won if prop was more than 8 pages!
- Use short, simple sentences in active voice
 - Wrong: “The data will be taken...”
 - Right: “We will take the data...”

Section (1): Identification and Significance of the Problem or Opportunity.

- 1 page, 1.5 pages MAX!
- Show you understand the problem
- Show why “good engineering” won't solve it
- Simply state your solution (“Elevator Speech”)
- SELL your solution
 - Benefits because of quality
 - Why your solution is superior

Section (2): Phase I Technical Objectives

- This is your chance to “stack the deck”
- List 3-4 specific objectives
 - Be precise and quantitative
 - Pick “black or white” testable objectives
 - Phase I “succeeds” if PM agrees you met them
- List 4-6 specific questions to be answered
 - Write unambiguous questions
 - Getting the right answers establishes feasibility

Section (3): Phase I Work Plan

- An Explicit, Detailed Description of Approach
 - What is planned (bulk of the proposal)
 - How and where the work will be done
 - Include a task schedule with chart
 - What will be delivered at contract's end
 - How feasibility will be determined
- Human Subjects Require Special Approvals
 - “Any research involving an intervention or an interaction with a living person that would not be occurring or would be occurring in some other fashion but for this research.”
 - Any research involving identifiable private information.

Section (4): Related Work

- Directly Related
 - Significant activities by PI, Firm, Contractors...
 - How these activities coordinate with Phase I
 - Persuade reviewers you know SOTA
- Not Directly Related, but Similar
 - Short description
 - Client, including contact individual and phone
 - Date of completion

Section (5): Relationship with Future Research or R&D

- State Anticipated Results if Phase I Succeeds
- Significance of Phase I as Phase II Foundation
- Outline Plan and Schedule for Any Clearances, Certifications, or Approvals Needed for Phase II

Section (6): Commercialization Strategy

- Approximately 1 page (not too short or long)
- How will you comm. to DoD, Feds, Private?
- Specifically, what market need will it address?
- How big is the market?
- Show a table with quantitative expectations
 - How much sales? When?
 - Incremental benefit to your company?
- Needs to be SOLID “Business 101”

Section (7): Key Personnel

- Concise resume of proposed PI
 - Include relevant publications, if any
- Identify lawful permanent residents and foreign nationals
 - Provide copies of green cards or visas
 - Specify country of origin
 - Explain their level of involvement in Phase I
- All pages count toward max of 25 pages

Section (8): Facilities/Equipment

- Describe what you have that is needed in Phase I
- Justify any items to be purchased (avoid?)
- Include copied statement of compliance with environmental laws and other regulations

“Facilities where the proposed work will be performed meet environmental laws and regulations of federal, state (name), and local Governments for, but not limited to, the following groupings: airborne emissions, waterborne effluents, external radiation levels, outdoor noise, solid and bulk waste disposal practices, and handling and storage of toxic and hazardous materials.”

Section (9): Subcontractors/Consultants

- These ***can*** be Professors or other professionals
- Describe the sub work in detail
 - Break out separately in cost proposal
- Can't use any Federal agency

Section (10): Prior, Current, or Pending Support of Similar Proposals or Awards

- You CAN Propose the Same Thing to Several Agencies at the Same Time
 - With proper notification
- But It Is Unlawful to Contract for the Same Work with Two or More Agencies
- Best Plan: Propose to One Agency at a Time
- Then Here Is Your Entire Section (10):
 - “Section (10). --None--”

Cost Proposal

- My Personal Approach: Three Items
 - Labor
 - Job category rate * hours, and sum
 - Overhead
 - Compute a defensible rate for your company
 - Apply to Labor
 - Fee or Profit
 - Apply to Labor plus Overhead
 - Work backwards from the maximum bid allowed to get about 6% Fee or Profit
- Don't bill travel, equipment, or anything else

Types of Contracts

- Firm Fixed Price
 - Typically used for Phase I
 - Deliver something in contract, get paid
 - Often uses reports as deliverables
 - Firm carries the risk of non-delivery
- Cost Plus Fixed Fee
 - Typically used for Phase II
 - Requires DCAA approved job-level cost accounting system
 - Gov carries the risk of non-delivery

12:00-1:00 Lunch and Networking

1:00-2:00 Submission Process

- Get Fully Registered
- Prepare Submission
- Submit

Getting Registered

- Learn to Think Like a Gov Contracting Official
- Numbers and Codes are Absolutely Necessary
- You Can't Submit (or Get Paid) Without Them
- Do It Right the First Time
 - You'll save a lot of time and grief
- First, Some Definitions...

DUNS Code

- “Data Universal Numbering System”
- A 9-Digit Number from Dun & Bradstreet
- A Worldwide Standard Business Identifier
- A DUNS Code Is Required for SBIR Bids and Contracts
- To Get One, Contact D&B
- (More Detail on “How” to Follow)

CAGE Code

- CAGE: “Commercial and Government Entity”
- A 5-Character ID Number
- Identifies (US) Government Contractors
- Originated by the Department of Defense
- Now Used by Many Government Agencies
 - DoD, DoT, NASA
- Required in Federal Government Contracts
- To Get One, Register with DoD's CCR

SIC Code(s)

- “Standard Industrial Classification”
- A 4-Digit Code
- A US Gov System for Classifying Industries
- <http://www.osha.gov/pls/imis/sicsearch.html>
- Look Up What You Do In Table and Pick the Most Appropriate Code(s)

NAICS Code(s)

- “North American Industry Classification System”
- A 6-Digit Code
- An “ID Method” Created by the US, Canada, and Mexico “To Simplify Trade”
- <http://www.census.gov/epcd/www/naicstab.htm>
- Look Up What You Do and Pick Appropriate(s)
- Theoretically Replaced SIC on April 9, 1997
- Still Need a SIC Code to Get a DUNS Code

Getting Registered, Step-by-Step

- An Attempt to Put Together the Process In an Effective Order
- Getting These Steps Out of Order Will Probably Require Backtracking and Create Delays

Step (1): Taxpayer Identification Number

- Tax ID is either a Soc Sec # or an EIN #
- Sole Proprietorship in Your Name: SS#
- Sole Proprietor Under a DBA: SS# or EIN#
- LLC or Corporation: EIN#
- <https://sa2.www4.irs.gov/modiein/individual/index.jsp>
- Some Things Can Be Completed While EIN is Pending, But Better To Have It in Hand

Step (2): Getting a DUNS Code

- <http://fedgov.dnb.com/webform/pages/CCRSearch.jsp>
- 1-866-705-5711 (1-3 Days)
- Need: Legal Name; DBA, or other name by which you are recognized; Physical Address, City, State and Zip Code; Mailing Address (if different); Telephone Number; Contact Name; SIC Code (Line of Business) can be found at ; Number of Employees at your location; Headquarters name and address; (if there is a parent corporate entity); Is this a home-based business?

Step (3): Register with CCR

- “Central Contractor Registration”
- <https://www.bpn.gov/ccr/default.aspx>
- Must Establish an Electronic Business (EB) Point of Contact (POC) in CCR
 - A Single Person Who Talks to Gov for Firm
- EB POC is also Group Administrator (GAM) for WAWF
 - WAWF is how you get paid
 - More on WAWF shortly

Step (4): Register with ORCA

- Online Representations and Certifications Application
- <http://orca.bpn.gov>
- Need Active CCR and MPIN to Register
 - Marketing Partner ID Number
 - You Create MPIN at CCR (takes 24 hours)
 - 9-digit code, at least one alpha char
- Useful Before Contract Win, Required After
- Keep It Up to Date! (At CCR)

Step (5): WAWF

- Wide Area Work Flow
- <http://orca.bpn.gov>
- Most Government Contracts Now Require WAWF for Submission and Approval of Invoices (Getting Paid!)

Prepare Submission

- READ the Agency Instructions!
- Technical Prop and Cost Prop are Separate
- Submit PDFs if Possible
 - Surest way for it to look like you intend
- Cost Prop Will Likely Be an Online Form
 - Get your numbers together beforehand

Submit

- You've Done All Registrations, Right?
- Most Agencies Require Online Submissions
- Allow TIME! Servers Can Get Backed Up
- Download Proofs and READ Them!

2:00-3:00 Phase I and Beyond

- Phase I
- Phase II
- Phase II Fast Track
- Phase II Enhancement
- Commercialization Pilot Program
- Phase III

Phase I

- Usually a Firm Fixed Price Contract
- Monthly Reports (“On Schedule, On Budget”)
- Monthly Checks
- SBIR “Data Rights”
- SBIR Patent Clause
- SBIR Phase III Rights

Phase II

- To Create a Prototype From a Feasible Phase I
- Up To \$750K For Up To 2 Years
- DoD Must Invite Your Phase II Proposal
- About 40% of Phase II Proposals Are Funded

Phase II Fast Track

- Alternate Path: No Going Back!
- Must Attract Matching Funds To Bid Fast Track
 - 1st Phase II, \$1 Matching for \$4 SBIR
 - Subsequent Phase II, \$1 for \$1
- Matching Funds **MUST BE IN CASH!**
 - Must be in your bank at Phase II contract award
- If Matching Funds Fail, You're **DONE!**

Phase II Fast Track (continued)

- You Do NOT Need an Invitation to Submit the Phase II Fast Track Proposal
- \$30K-\$50K “Bridge Funding”
- Separate, Expedited Proposal Evaluation
- About 95% of Fast Track Props are Funded

Phase II Enhancement

- “...to further encourage the transition of SBIR research into DoD acquisition programs as well as the private sector...”
- Phase II Awardee Gets More Time and Money
 - If Awardee can match \$\$ with non-SBIR \$\$
- Can Extend Existing Phase II Up To 1 Year
- Can Get Up to \$500K More From DoD
- Rules Vary by DoD Component

Commercialization Pilot Program

- “...to accelerate the transition of SBIR-funded technologies to Phase III, especially into systems being developed, acquired and maintained for the warfighter...”
- Separate CPPs In Each Military Department
- By Invitation and Discretion of Department
- Can Significantly Enhance Participation
- Guidelines, Not Limits

Phase III

- SBIR Policy Directive
 - “...work that derives from, extends, or logically concludes effort(s) performed under prior SBIR funding agreements...”
- Types
 - Commercial applications (non-Government)
 - Non-SBIR Federal Funding

Phase III (continued)

- Phase I or Phase II Satisfies Competition Requirement (Sole Source!)
- SBIR “Data Rights” Apply
 - Gov can't take data or code for 4 yrs (DoD 5)
- Products, Production, Services, R/R&D, or any combination
- No Limits on Number, Duration, Type, or \$\$
- Awards to Others Reported to Congress
- No Company Size Limits

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