SBIR / STTR @ DoD

Spotlight On SBIR/STTR Proposals to the Department of Defense

www.sbir.us/library.html

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A PROPRIETARY PRESENTATION

SBIR/STTR BASICS

- **Economic Development Program** (NOT a "research program")
- **11 Agencies of the Federal Government** --> 21+ procurement actions
- **~2.7 $billion / >5000 Awards Annually** (diminishing)
- **3-Phase Program**
  - $150K/6 mo. Phase I (to determine concept feasibility)
  - $1M /24 mo. Phase II (to conduct T&E)
  - Phase II Commercialization (unlimited Federal downselects)
- **Highly Competitive** (only 1 in 9 proposals win funding / getting worse)
- **Available ONLY to US, For-Profit, Firms Under 500 Employees**

The MOST IMPORTANT source of venture financing available to America's startup and small-firm entepreneurs.

DEPARTMENT OF DEFENSE

- **Largest SBIR/STTR Agency (> $1.2 billion)**
- **A User Agency; Contracts for Near-Term Solutions to Problems**
- **Early Posting of Procurements On the Internet (30 days prior)**
- **Diverging Departmental Requirements:**
  -- timing/duration -- bid amounts -- option bids -- etc.
- **Pre-Registration with Company Commercialization Report**
- **Mil. Service Academies Approved to Participate in SBIR/STTR**
- **Phase II Submissions - No Longer By Invitation Only**
- **Phase II Enhancement Offers $100 - $500K investment match.**
- **Moving toward 20-page proposal limit (not counting budgets)**
- **DOD Requires Listing of Any Foreign Nationals on Project**
- **Fast Track ----> Requires Matching Funds By Investors**

DOD OPPORTUNITIES

- **3 SBIR Solicitations/Year (I-net ONLY submission)**

200X.1	Due Mid-Jan.	Air Force, Navy, CBD, DTRA, OSD and SOCOM
200X.2	Due Mid Jun.	Army, Navy, DARPA, DTRA and OSD
200X.3	Due Mid-Sep.	Air Force, Army, Navy, DLA, MDA and OSD

100's of topics under SBIR; AF (104), Navy (102) etc – compare to (numbers) below

- **2 STTR Solicitations (I-net ONLY submission)**

200XA	Due Mid-Apr.	AF(31), Army(42), Darpa(15), Navy(34), OSD(3)
200XB	Due Mid Sep.	AF (30) and MDA(13)

NOTE: *Any component can, and often does, show up in any solicittion.*

DoD COMPONENTS #1

AIR FORCE

- **$150K Limit; MUST Bid a 9 Month Project For All Phase Is**
- **Topics Available, On-line, Up to 6 Months in Advance**
- **Phase II-B for $250K (no specific customer requirement)**

NAVY

- **6 Month Phase I Basic Bid ($80K), PLUS a 6 Month Option ($70K)**
- **Phase II-B for $250K (only for Navy follow on)**

ARMY

- **Accepts Phase I Bids For $150K ($100K basic + $50K option)**
- **Now Accepts 10 Month P-I Projects (4 months for option)**
- **Phase II-B for $250K (**no specific customer requirement)

DoD COMPONENTS #2

MDA

- $125K P-I / 7 month project – No Options

DARPA

- 6 Month Phase I Project at $100K with $50K 4 month option
- Each Perceives Themselves Differently (i.e. “DARPA Hard”)

MDA (Missile Defense Agency)

OSD (Office of the Secretary of Defense)

SOCOM (U.S. Special Operations Command)

CBD (Chemical and Biological Defense)

DTRA (Defense Threat Reduction Agency)

NGA (National Geospatial Intelligence Agency)

DLA (Defense Logistics Agency)

DMEA (Defense Microelectronics Activity)

- others from time to time -

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COMPONENT COMPARISONS

DoD Component	Technical Volume Page Limit	Price	Duration	Phase I Option
Army	20 pages	Base NTE $100,000 + Phase I Option NTE $50,000	6 Month Base + 4 Month Phase I Option	Required
Navy	20 pages	Base NTE $80,000 + Phase I Option NTE $70,000	6 Month Base + 6 Month Phase I Option	Required
Air Force	20 pages	Base NTE $150,000	9 Month Base	Not Applicable
DARPA	20 pages	Base NTE $100,000 + Phase I Option NTE $50,000	6 Month Base + 4 Month Phase I Option	Required
DHP	20 pages	Base NTE $150,000	6 Month Base	Not Applicable
DMEA	20 pages	Base NTE $150,000	6 Month Base	Not Applicable
MDA	20 pages	Base NTE $125,000	7 Month Base	Not Applicable
CBD	20 pages	Base NTE $100,000 + Phase I Option NTE $50,000	6 Month Base + 3 Month Phase I Option	Required
SOCOM	20 pages	Phase I NTE $150,000	6 Months	Not Applicable
OSD	25 pages	Phase I NTE $150,000	6 Months	Not Applicable

Red background = prior solicitations (not 2013-2)

2013-2 SBIR-ToolKits™ now shipping.

DOD EVALUATION CRITERIA

The DoD Components plan to select for award those proposals offering the **best value** to the Government and the nation considering the following factors (listed in descending order of importance):

a. **The soundness, technical merit, and innovation** of the proposed approach and its incremental progress toward topic or subtopic solution.

b. **The qualifications** of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the research and development but also the ability to commercialize the results.

c. **The potential for commercial** (Government or private sector) **application** and the **benefits expected to accrue** from this commercialization. *

* *Firms with a CAI at the 20th percentile or below may receive no more than half of the evaluation points available for commercial potential criteria.*

NOTE: *Where technical evaluations are essentially equal in merit, cost to the Government will be considered in determining the successful offeror.*

OVERRIDING PHILOSOPHY

Get it to the "War Fighter"

- Advance in Capability / Do More With Less
  (*4 years hence*)
- Likely Distribution / Commercialization
- Plan for "Technology Insertion"

2013 S&T Stated Emphasis Areas

Proposals advancing these goals should get priority.

- AUTONOMY
  Augmenting military operations using autonomous systems
- COUNTER WEAPONS OF MASS DESTRUCTION (WMD)
  Countering known, unknown and emerging threats
- CYBER SCIENCE AND TECHNOLOGY
  Dod performance for all operations in cyber space
- DATA-TO-DECISIONS (D2D)
  Shortening the cycle time from data gathering to decisions
- ELECTRONIC WARFARE / ELECTRONIC PROTECTION
  Enhancing the electromagnetic spectrum as a military domain
- HUMAN SYSTEMS
  Improving human-centric components of military operations
- ENGINEERED RESILIENT SYSTEMS
  Transforming engineering design to assure trustworthy and adaptive systems

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See http://www.acq.osd.mil/chieftechnologist/areas/index.html

DoD SBIR OUTLINE (1 of 4)

Volume 1. COVER SHEETS

a-1) Cover Sheet -filled out interactively on the Internet and printed locally from your browser. (be sure to provide the SBA SBC Identification Number from you registration)

a-2) Technical Abstract - filled out interactively on the Internet and printed locally from browser
(NOTE: one printout will give you both the Cover and the Abstract pages – *counts as two (2) pages* no matter how it prints)

Volume 2. TECHNICAL VOLUME *(limited to 18 pages)*

1) Identification and Significance of the Problem or Opportunity.
Why is the government interested in this concept/technology and how will they use it?
Why is anyone else interested and how will they benefit by it?
What is the innovation?
Why is what you are proposing likely to work? How will it work?

2) Phase I Technical Objectives.
List the milestones that must be met in reaching the goal of showing FEASIBILITY.
State the feasibility evaluation criteria (should be a threshold quantity to be measured)

DoD SBIR OUTLINE (2 of 4)

3) Phase I Statement of Work (including Subcontractors' Efforts)

- Provide an explicit, detailed description of the Phase I approach
- Discuss how you will manage the project.
- Discuss the work (tasks) and facilities that will go into reaching EACH milestone.
- Provide a schedule for reaching each milestone and why you have set up the schedule that way. Id and discuss any deliverables.
- If proposed, handle the option as separate subsection.
- This section should be at least 7 pages long -- 9 to11 would be better
- If any activities involve Human /Animal Subjects and/or Recombinant DNA, be sure to follow the instructions un Sections 4.7 – 4.9 of the Solicitation

4) Related Work.

Give a tutorial on the state-of-the-art in the technology (NOT the state-of-the-market) and explain how it came to be way; then discuss how what you are offering is different from anything else present or being worked upon in that arena. Provide a bibliography of your team's, and other's, research that has led up to the current situation.

5) Relationship with Future Research or Research and Development.

Discuss (1) anticipated results (technical, NOT market) of work proposed and (2) the significance of the proposed work in providing a foundation for Phase II efforts.

6) Commercialization Strategy.

Demonstrate how and why the results, if successful, will form the basis of a legitimate commercial (profit making) opportunity for your/your firm.

DoD SBIR OUTLINE (3 of 4)

7) Key Personnel.
Identify the key personnel and explain why they are appropriate to the tasks proposed.

8) Foreign Citizens.
Identify any foreign citizens you expect to be involved on this project

9) Facilities/Equipment.
Identify the facilities and equipment needed to perform the Phase I tasks and explain how you will come to have unimpeded access to everything that you will need.

10) Subcontractors/Consultants.
Identify the need for any consultants (justify the need) then identify the chosen consultants, explain why these are appropriate to perform the tasks with which they will be charged.

11) Prior, Current, or Pending Support of Similar Proposals or Awards.
Identify any overlapping work tasks with other projects (planed or in hand).

Volume 3. COST VOLUME *(does NOT count in page limits)*

To be inserted as the last pages of the technical proposal (does NOT count in page limits),
OR
you may insert the data into the HTML form budget facility on the submission site.

DoD SBIR OUTLINE (4 of 4)

Volume 3 Cost Volume (continued)

(1) Direct Labor --list all key, direct-charge personnel by name, number of hours dedicated to the project and salary levels of each.
(2) Materials (special tooling, test equipment and expendable material costs) -list and justify.
(3) Travel --justify and discuss any travel proposed.
(4) Indirect Cost Rates (Overhead and G&A) --provide these rates as percentages and use them to total project costs.
(5) Fee --the fee (your profit) you will ask for accomplishing the work proposed.

NOTE: Budget materials DO NOT count in your page count limit. This allows you to offer good, well thought out budget detail.

NOTE: Subcontract budgets must contain same level of detail as the prime contractor's. If you use the DoD submission site's HTML forms budget facility, this (and any other justification/budget details) must be presented in the Explanatory Material section.

Volume 4. COMPANY COMMERCIALIZATION REPORT *(NOT in page limits)*

Filled out interactively on the Internet and printed locally from your browser. Provide details of what you have done with the results of past SBIR awards and use this to discus why the reviewers should trust you to commercialize this work, if successful.

KEY ELEMENTS

- TRUE Advance / Will be Useful When Warfighter Receives
- Demonstrated Understanding of the User's Issues
- Work Plan Makes "Perfect Sense"
- Scope of Work Matches With Budget
- Project Management Acumen Demonstrated
- Project Consistent With TRL's 3 through 7

Technology Readiness Levels (TRL) in the Department of Defense (DOD)
(Source: DOD (2006), *Defense Acquisition Guidebook*)

TRL	Description
1. Basic principles observed and reported	Lowest level of technology readiness. Scientific research begins to be translated into applied research and development. Example might include paper studies of a technology's basic properties.
2. Technology concept and/or application formulated	Invention begins. Once basic principles are observed, practical applications can be invented. The application is speculative and there is no proof or detailed analysis to support the assumption. Examples are still limited to paper studies.
3. Analytical and experimental critical function and/or characteristic proof of concept	Active research and development is initiated. This includes analytical studies and laboratory studies to physically validate analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative.
4. Component and/or breadboard validation in laboratory environment	Basic technological components are integrated to establish that the pieces will work together. This is relatively "low fidelity" compared to the eventual system. Examples include integration of 'ad hoc' hardware in a laboratory.
5. Component and/or breadboard validation in relevant environment	Fidelity of breadboard technology increases significantly. The basic technological components are integrated with reasonably realistic supporting elements so that the technology can be tested in a simulated environment. Examples include 'high fidelity' laboratory integration of components.
6. System/subsystem model or prototype demonstration in a relevant environment	Representative model or prototype system, which is well beyond the breadboard tested for TRL 5, is tested in a relevant environment. Represents a major step up in a technology's demonstrated readiness. Examples include testing a prototype in a high fidelity laboratory environment or in simulated operational environment.
7. System prototype demonstration in an operational environment	Prototype near or at planned operational system. Represents a major step up from TRL 6, requiring the demonstration of an actual system prototype in an operational environment, such as in an aircraft, vehicle or space. Examples include testing the prototype in a test bed aircraft.
8. Actual system completed and 'flight qualified' through test and demonstration	Technology has been proven to work in its final form and under expected conditions. In almost all cases, this TRL represents the end of true system development. Examples include developmental test and evaluation of the system in its intended weapon system to determine if it meets design specifications.
9. Actual system 'flight proven' through successful mission operations	Actual application of the technology in its final form and under mission conditions, such as those encountered in operational test and evaluation. In almost all cases, this is the end of the last "bug fixing" aspects of true system development. Examples include using the system under operational mission conditions.

TRL PLAN

TECHNOLOGY READINESS LEVEL	PERIOD	$$$ & SOURCES
1. Basic principles observed and reported		Preliminary
2. Technology concept and/or application formulated		Proposal Preparation
3. Analytical and experimental critical function and/or characteristic proof of concept		Phase I
4. Component and/or breadboard validation In laboratory environment		Phase I Phase II
5. Component and/or breadboard validation In relevant environment		Phase II
6. System/subsystem model or prototype demonstration in a relevant environment		Phase II
7. System prototype demonstration in an operational environment		Phase III
8. Actual system completed and 'flight qualified' through test and demonstration		Phase III
9. Actual system 'flight proven' through successful mission operations		Phase III

DOD FAST TRACK

- Highest Phase II award priority to “Fast Track” bidders
- Matching funds @ 4/1 (1st Phase II) and 1/1 ratios (applies to both interim and Phase II funding)
- Interim funding ($30K to $50K)
- Matching funds can be used for “related” activity (marketing, capital equipment, etc. – not with SBIR funds)
- Submit in 4th month/at least 30 days prior to end of Phase 1
- Phase II proposal may be separate from Fast Track Application
- Third party must pay first and small business must certify
- Quality of the investor counts
- Slightly different rules at MDA

OTHER ITEMS

- **Component Instructions** (Section 12)
- **Cost/Budget Proposals** (guide, options, justify, etc.)
- ITAR (*International Traffic in Arms Regulations*)
  http://www.williamsmullen.com/news search on “itar”
- SITIS http://www.dodsbir.net/SITIS/
  – get questions answered
  – view answers to other’s questions
- Register – DoD http://www.dodsbir.net/submission/
  – SAM (CCR & ORCA) http://www.sam.mil
- 6:00 AM, 26 June – Submit 24 Hours Early
- Upload Early and Often

ADDITIONAL PREPARATION

* ***How To Win SBIR Awards***[SM] *- America's best SBIR training event*
  - 23 July 2013 in Hanover, MD (*NIH emphasis added*)
  - 5 Sept. 2013 in Columbia, SC (*DoD emphasis added*)
  - 12 Sept. in Tampa, FL (*DoD emphasis added*)

* ***SBIR Lab***[TM] (*shared consulting for "hands-on" application development*)
  - for NIH/PHS 2013-1 – 25, 26 & 27 July 2013 in Rockville, MD
  - for DoD 2013.3 --12, 13 & 14 Sept. 2013 in Annapolis, MD

* **SBIR CheckList**[SM] *-proposal polishing*
  - 7 June in Rockville, MD

* ***National SBIR Conferences***
  - 5 - 7 Nov. 2013 in Columbia, MO (*all agencies*)
  - 28 to 30 Oct. 2013 NIH SBIR/STTR Conference in Sioux Falls, SD

– – – RELATED – – –

* ***R&D Project Planning, Cost Estimating & Control***[SM]
  - 18 July 2013 in College Park, MD

* ***Crafting Federal Cost/Budget Proposals***[SM]
  - 15 August 2013 in College Park, MD

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INTELLIGENT PURSUIT

An *Integrated* Resource System

- **Proposal Development Tools -** 23 software titles,
  (each crafted to match specific agency solicitation)
- **Tutorial Packages -** self-paced software - 3 titles
  (accounting, IP/legal, SBIR/STTR Program database)
- **Bid Support Services -** most at *fixed-price*
  (strategy advice, proposal reviews, proposal leadership, opportunity search, mentoring/coaching, etc.)

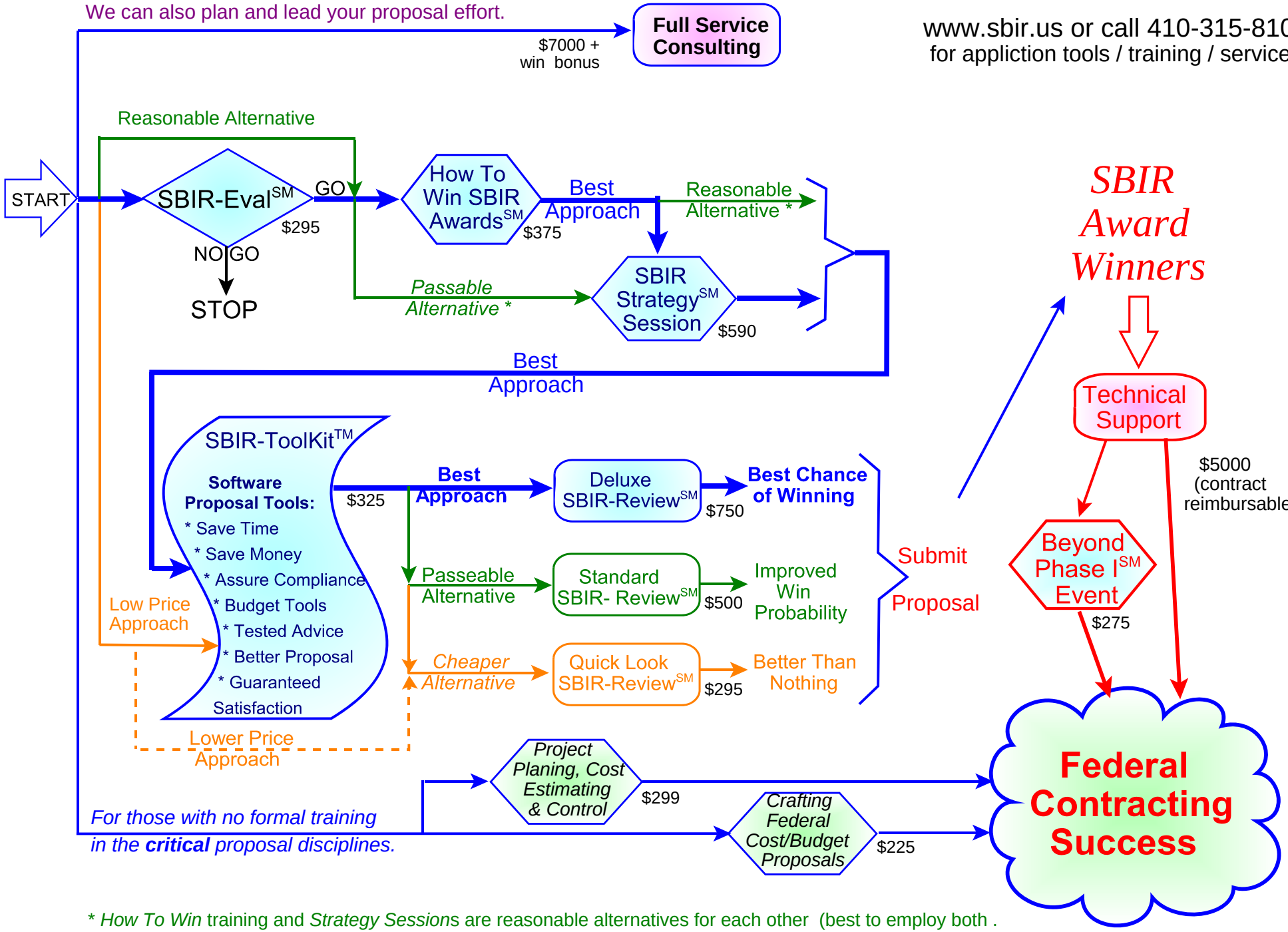
ENGINEERED, TESTED & PROVEN EFFECTIVE
(by hundreds of users) SINCE 1993:

Intelligent Pursuit Alternatives

<typical client spends under $2000 for all the help they can stand >

SBIR Resource Center(R)
Professional Support

www.sbir.us or call 410-315-8101
for appliction tools / training / services



* *How To Win* training and *Strategy Sessions* are reasonable alternatives for each other (best to employ both .

SBIR Resource Center(R)

The Intelligent Approach

Serving the SBIR/STTR community since 1993

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When You Are Serious About SBIR

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