

COURSE 6, TUTORIAL 5

WHEN THE AGENCY DEFINES THE PROBLEM



In Course 1, we discussed the differences between grants and contracts. In general, grants are much more flexible than contracts and allow a small business to define a problem of interest in response to broad topic areas released by an agency. This is the case with the Department of Health and Human Services (HHS) and also with the National Science Foundation (NSF). However, with contracting agencies such as the Department of Defense and the National Aeronautics and Space Administration, the topics released are very specific and articulate defined problems that need to be addressed. Why is this important and why is this being discussed in a tutorial on proposal preparation?

GRANTS	CONTRACTS
A flexible instrument designed to provide funds to support a public purpose	A binding agreement between a buyer and a seller for goods or services
Principal Investigator has more freedom in defining scope of work	Scope of work is fairly inflexible
Flexible with respect to budget and often uses a “draw-down” system	Payments are based on deliverables and milestones
Cannot be used for classified work	Must be used for classified work
Requires best efforts in research	Requires delivery of promised goods or services determined by contract type
Easy to amend or revise	Modification must meet strict standards
Questions and answers about solicitation are not made public	Questions and answers about solicitations must be made public
Application defines the scope of work	Government defines the scope of work



DON'T FORCE FIT

One mistake that is often seen with companies preparing their first SBIR or STTR proposal is that they try to force fit a research project of high personal interest into a topic that has been released by an agency. With broad topics, such as those released by most granting institutions the proposer has considerable leeway. However, when the stated need is more specific, as is the case with contracting agencies, it is the responsibility of the proposer to demonstrate that he or she has heard and understands the expressed need of the agency and can provide a solution that is highly responsive and utilizes the small business core competencies.

CONTRACTING AGENCIES

In the tools section of this tutorial, you will find a set of five solicitation topics, one from each of the five largest agencies. Please [download](#) that file, while reading this text.

A quick look at these five topics reveals many differences. The Department of Defense (DoD) and the National Aeronautics and Space Administration (NASA), both contracting agencies are often referred to as **mission** agen-

Mission agencies, such as DoD and NASA are potential customers for the technologies that they fund through the SBIR/STTR programs.

cies. This designation indicates that the agency is the ultimate customer for a solution of this nature, often as part of an integrated system purchased from a prime contractor. Therefore, when you look at the solicitation topic included from the Navy component of DoD you will find the phrase "Acquisition Program" towards the top of the page. This refers to the Department of Defense program that ultimately will acquire a solution, should the need persist. In the solicitation topic, the problem is described in considerable detail and the performance metrics of interest are noted. What needs to be accomplished in Phases I, II and III is also specified and there is a list of references. To be responsive to a topic such as this, the applicant can't simply propose a project that is an energy harvesting system – what is proposed must provide a specific solution to the problem as defined.

Similarly when you look at the sample NASA solicitation topic and subtopic for Air Vehicles you will find reference to the Technical Challenges that gave rise to the subtopics. The organizations that could benefit from this technology are also identified as Lead Center and Participating Centers. In reading the subtopic description you will find the specific platforms that could

use this technology are mentioned, that is Ultra-Efficient and Supersonic Commercial Vehicles. However, unlike DoD, NASA does not specify what needs to be accomplished in Phases I, II, and III – but does indicate concepts of interest and experimental application areas.

Often companies responding to solicitations from DoD or NASA find it useful to include a consultant with first hand experience with the identified problem areas.

GRANTING AGENCIES

The solicitation topics from granting organizations are very different in kind. The Department of Health and Human Services and the National Science Foundation will never be a

customer for the technologies that they fund through the SBIR/STTR programs. However, the research areas that they support are aligned with their missions and with "the greater good". In the sample solicitation topic included from NSF, the genesis of the need is expressed, as it is with the contracting agencies. There is a topic (Smart Health) and a subtopic (Business Models for User-Centered Healthcare) and many suggestions included regarding the desired benefits of the proposed research. However, there is considerable latitude provided to the applicant with respect to defining the problem of interest. Since NSF will never be a customer for the technology, to assure that there is a commercialization path, the proposer is expected to provide

There is great variability with respect to an applicants opportunity to speak with topic authors.

more attention to commercialization than is typically required by a contracting agency.

The sample topic included from the HHS Omnibus solicitation is from the National Insti-

Although HHS is the largest granting institution participating in the SBIR/STTR programs, the agency also uses contracts and presents contracting opportunities in a separate solicitation.



Always match your core competency with an agency's stated need.



tute of Aging. After describing the mission of the Division of Behavioral and Social Research, a list of numerous research areas of interest is provided, followed by the name of a contact person that you can reach out to at any time during the proposal preparation process. Again a reminder, you can only speak with DoD topic authors during the pre-release period. With NASA, the names of topic authors are never included as you may not reach out to them directly – you can only submit questions to the NASA help desk. By stark contrast, with all of the granting institutions, you can speak directly with topic authors at any time.

The Department of Energy is also a granting institution. The sample topic and subtopic included are from the Advanced Fossil Energy Technology Research area. DOE is often viewed as a hybrid between the agencies described. Some of the advanced energy topics such as fusion technology may only be implemented in the foreseeable future within a Federal lab – so in some sense, one could consider DOE as a near-term customer for limited use. Statements such as the one in this topic signal DOE's hybrid nature – “Applications determined to be outside the mission or not mutually beneficial to the Fossil Energy and Basic Energy Sciences programs will not be considered.”

When preparing your proposal in response to an SBIR or STTR solicitation – it is important to understand the differences between contracting and granting agencies. If you are responding to solicitation from a contracting agency, be sure that you understand the specific needs articulated and clearly demonstrate your ability to apply your core competencies to address the stated needs. If you are drafting a proposal in response to a solicitation from a granting institution – you will have much more latitude in defining the problem you wish to pursue within the parameters they have provided. You should also anticipate that you will need to pay more attention to issues of commercialization with granting institutions, given that these agencies will not be customers.

DOE SBIR/STTR Funding Opportunity Announcements

<http://science.energy.gov/sbir/funding-opportunities/>