COURSE 6, TUTORIAL 2

DEVELOPING A PROPOSAL PREPARATION SCHEDULE

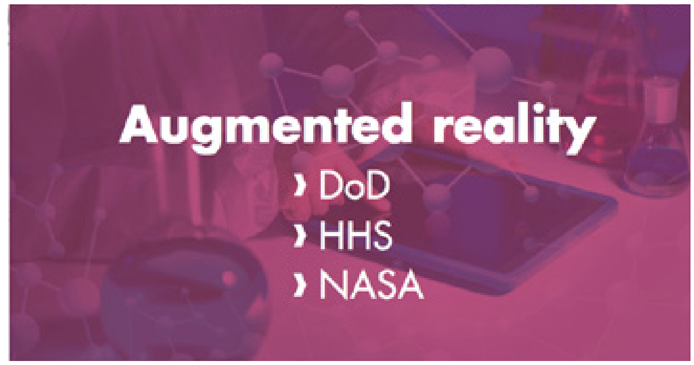
The purpose of this tutorial is to help you develop an approach and a schedule for successfully preparing your first SBIR or STTR proposal. It will take more time than you anticipate, so start by making a firm commitment to give it everything you've got. Now that doesn't mean that you need to be seated at your desk 24-7 hammering on the keyboard, but it does mean that you may think about the project in the shower or while driving your car; you will reach out to individuals that you would like to be part of your team; you will be self-reflective and critical about the innovation of your concept, you will assure that you have access to appropriate facilities; register with numerous databases; gather resumes; prepare financials – and yes, complete and submit a responsive proposal.

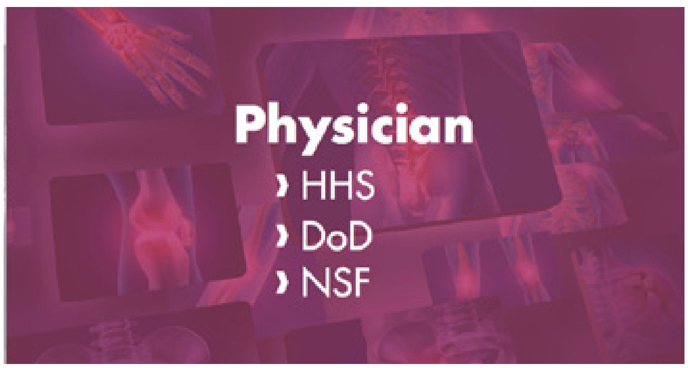
THE IMPORTANCE OF PRE-WORK

There's clearly a lot to do and if you are on your own, you may wonder how on earth you can get this done? To be successful it's suggested that you don't wait until a solicitation is released before you begin the planning process – start with pre-planning. Start this as soon as you understand what the SBIR and STTR programs could contribute to your future. The initial step should be to find local, state, and federal resources that could potentially assist you with planning and proposal preparation. A preliminary list of organizations that could provide assistance is located in the Links Tool that accompanies this tutorial. Approach the local chapters of these organizations in advance of the solicitation release dates and determine what you need to do in order to qualify for their assistance. Recognizing that it's important to have as many resources as possible once you begin the proposal preparation process - put those resources in place, before you need them.

Most successful companies learn how to work well with one agency first and then migrate to working with others over time.

There are other things that you can do BEFORE a solicitation is released that will make this process less daunting. Begin by learning about each agency that has an SBIR or STTR program and reviewing their previous years' solicitations. This will help you understand what each has funded in your area of interest. As there are so many variations in how agencies implement the SBIR and STTR programs, rather than trying to master all of the variations, review the materials in the course on the agencies and their solicitations so that you can decide with which agency you





will begin your SBIR or STTR journey. Most successful companies learn how to work well with one agency first and then migrate to working with others over time.

WHAT DO AGENCIES FUND?

Let me give you some examples of where to look, keeping in mind that the SBIR and STTR programs fund research and development, not projects that are already complete. If you are a vintner and are looking to develop new methods for dealing with black rot – look at last year's topics from USDA, and also from NSF, both granting institutions. If you are a computer scientist with a core competency in augmented reality see what the Department of Defense, as well as the Department of Health and Human Services, and NASA have recently funded in this area. If you're a physician beginning to explore new methods of pain management review the HHS solicitations, but also look at those from DoD and NSF. For post docs working on high temperature alloys you are likely to find topics of interest in solicitations from DOE, DOD, NASA, and NSF. The point is that at any time you can and should take advantage of the opportunity to review previous topics. Then, when you find topics that resonate with your research interests and core competencies take the time to explore the literature that defines the state of the art. In this way you will have a good idea about which solicitations you will explore once they are released. It is recommended that after reviewing the various agency solicitations, that you make a decision as to which agency you will learn to work with first, as a means of increasing the likelihood that you will prepare a responsive proposal.

The start date for the schedule should always be the release date for the solicitation and/or its topics.

DEVELOPING A SCHEDULE FOR PROPOSAL PREPARATION

With the pre-work done, let's shift our attention to developing a proposal preparation schedule. The start date for the schedule should always be the release date for the solicitation and/or its topics. Remember that some agencies release their topics in advance of the solicitation. You need to always start the proposal preparation process on the day the topics are released. In developing a schedule – give yourself 10 weeks, but always start by checking the actual release and submission dates so that you have a precise timeline. Download a blank calendar from the web or create one in excel and begin to map out the various activities.

There's a lot to do during the **first week**: First, review the solicitation topics and down select to one or more opportunities that appear to be a good fit with your core competencies. Then, generate questions that you have regarding the topics of interest and determine if the agency will allow

you to speak with the topic authors. If you are writing an SBIR/STTR proposal for the first time, it's best to focus on just one topic. During that first week also make sure that you understand the structure of a responsive proposal – Determine how many sections it must contain, How the application should be organized, What the page limits are, and if there is a specified type font, If the agency has provided a Checklist, be sure to download that at the outset.

Now that you have added tasks in week 1, shift to **week 10**. Enter the targeted upload date for the final proposal - two days before the actual due date for the solicitation – so it is clear when everything needs to be complete. Now continue filling in the other activities - shifting between early and late weeks in the calendar.

THE IMPORTANCE OF TOPIC AUTHORS (TA)

During **week 2** reach out to the topic authors, if this is allowed using the e-mail template provided in the tools section. The primary reason to speak with the topic author or TAs is to glean additional insights regarding the topic. Agencies are often constrained in how much detail they can put into the solicitation or funding opportunity announcement (FOA). Therefore some topics are broad and may leave lingering questions in the potential applicant's mind. Another reason that a topic may be broad is because the agency wants a diversity of responses - so a conversation will be very helpful in gaining the needed clarity. Develop your list of questions in advance of the TA conversation so you won't leave out anything of importance. Try to keep your questions brief and to the point, so more of those precious 10-15 minutes are left for the topic author to provide answers. **You learn when the topic author speaks, not when you do.** You may want to briefly explain what you are planning to propose and seek the topic author's concurrence that it fits the topic. However, refrain from doing this until you've asked enough questions to know whether your innovation is generally consistent with what they are looking for or not. Be sure you don't ask questions that are readily answered by the agency's solicitation/FOA, or information on its website. To do so tells the topic author that you haven't done your homework, and the topic author can be disappointed that you are taking his/her time with such questions. If it's hard to get hold of the topic author – don't give up, as speaking with the topic author is of great benefit. In week 2, in addition to reaching out to the topic authors line up your formal or ad hoc team. In addition to service providers that you sought out during the pre-planning period, if you are just starting ask your family and friends if they can assist with filling out registrations, collecting bios, and editing. Also line up the individuals who will serve as your internal reviewers on the draft proposal once it is done.

> **Be sure to allow enough time for a red team to review your draft.**

Going back to the calendar, now enter information in **week 9**, scheduling the date when you will provide a draft of the proposal to colleagues and mentors to review the draft and another date that same week when they will provide you with their feedback. Your internal reviewers, referred to in the literature as the red team should not have been involved with proposal preparation. You will need to provide your red team with a copy of the solicitation guidelines at the time you distribute your draft. Their role is to provide feedback to you on how responsive your draft is to the evaluation criteria. Also, in week nine schedule time after the feedback session so that you can make editorial changes. Everything else needs to be done during the intervening six weeks, working around your other obligations.

BE SURE TO COMPLETE REQUIRED REGISTRATIONS

One of the items that sometimes prevents applicants from being able to submit a proposal is that they failed to complete the required registrations. So in **week 3** get the registrations out of the way. Complete the three basic ones first – that is, Dun & Bradstreet, SAM and the SBA registry – then register for the others that are required by the agency of interest. If you need to work with Grants.gov and/or the NSF FastLane make sure that you look at these early in the registration process. If you have family, friends, or colleagues who can help with the registrations – involve them during week 3 in order to get this done – so that you can focus on what is required in the Technical Proposal. After all, the reason that you are submitting a proposal is so that you can develop an innovative solution that is responsive to the topics presented. You uniquely need to spend time doing this. If you have NOT already conducted a literature review make sure that you do this during week 3 so that you are well prepared to make the case that your work is innovative relative to the state of the art.

> **Dun and Bradstreet [DUNS number]**
> https://fedgov.dnb.com/webform
>
> **System for Award Management (SAM)**
> https://www.sam.gov/portal/SAM/##11
>
> **SBA SBIR Company Registration**
> https://www.sbir.gov/registration

In weeks 3 and 4 as you are thinking about the technical proposal, you will need to reflect upon various items concurrently. What is your innovation? How will you structure your work plan? How will the principal investigator and team appear to the re-

viewers? Do you have the needed facilities? How much can you accomplish during Phase I; How are you going to price this? How much can you accomplish in Phase I? Begin writing to the specifications provided in the solicitations – as it will help consolidate your thoughts. As you must allow time for others to consider joining your team as a consultant, subcontractor, or employee – start reaching out to others no later than week 4. You will need their commitment as soon as possible, but no later than week 8 and should request their resume at that time. Perhaps you ad hoc team can help with following up with those to whom you have reached out. If you are will need letters of support, start the process of pursuing those in eweek 4 as well
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FINDING HELP WITH THE FINANCIALS

By week five if you have adhered to this schedule, you will begin to be concerned about the financials. If you have never prepared a proposal before you will worry about how to benchmark labor rates and how to address the other requirements specified in the budget section of the Funding Opportunity Announcement or solicitation. At this point you should begin to seek solid guidance on the financials. Regional Procurement Technical Assistance Centers (PTAC) often provide courses and individual counseling on issues related to contracting [but not grants]. Small Business Development Centers (SBDCs) in your area, as well as the Senior Core of Retired Executives (SCORE) may be able to provide assistance with Grants. Often the agencies themselves may also have on-line tools to assist you.

After week 5 you will only have three weeks left to complete everything and submit your proposal. To meet your deadline enlist the assistance of family, friends, and service providers to help everything moving forward that you started in previous weeks – that is, registrations, team members, bios, financials. Don't let any balls drop. Print out the checklist from the solicitation, if the agency provided one, and place it next to your computer – start going through each item on the list one at a time, making sure that you understand what is required, and that you have it all in draft form by week 9 to provide to your internal reviewers or red team.

Over time your efficiency at preparing proposals will increase – but at the beginning – in order to give this proposal your best effort – it will take a significant amount of time from you and your ad hoc or formal team. When you're in the midst of this and feel like giving up remember that proposal writing is a valuable skill, one that will enable you to engage in interesting work and grow your business. It is worthwhile taking the time to learn how to do it well.