

# Communicating How DOE SBIR/STTR Phase Shift (formerly known as I-Corps) and Technical and Business Assistance (TABAs) Programs Work Together Toward Improved Commercialization Outcomes

## How are Phase Shift and TABAs alike?

The Phase Shift and TABAs offerings from the DOE Office of SBIR/STTR programs have the same intended outcome: to increase the probability of commercialization success of DOE SBIR/STTR awardees. Given that Phase II funding advances the development of the technology, Phase I commercialization success can be loosely defined as being awarded Phase II funding. Phase II commercialization success is defined as receipt of funding from a non-SBIR source including sale of product, government contract, technology license, investment, and/or launching a spin out company in Phase III. Historically, participation in the Phase Shift and TABAs programs increases the likelihood of commercial success as defined above. That said, the Office of SBIR/STTR Programs highly recommends that awardees fully utilize both programs. Ultimately, for both Phase Shift and TABAs, it is incumbent on the awardee to best-apply these resources that are made available at no cost by the DOE Office of SBIR/STTR Programs.

## How are Phase Shift and TABAs different?

Phase Shift is hands-on, participant-driven experiential business development effort by awardees. Embracing the scientific method, the Phase Shift program is based on identifying business risks and assumptions that are present in the business, creating testable hypotheses around those assumptions, and then gathering and analyzing first-hand data to validate and prioritize business opportunities.

In both Phase I and Phase II offerings, business risks and assumptions are modeled using the Business Model Canvas<sup>1</sup> (BMC). First-hand data is gathered primarily through direct customer interactions, commonly referred to as customer discovery. Typically, Phase I Phase Shift focuses on identification of an unmet customer need and evaluation of a significant beachhead market, concentrating on the Value Proposition and Customer Segment sections of the BMC. These elements feed most directly into the Market Opportunity section of the 15-page Phase II Commercialization Plan submitted as part of a DOE SBIR/STTR Phase II application. Phase II Phase Shift, in a sense, covers the remaining seven boxes of the BMC. Phase II Phase Shift programming continues the rigor of experimentation using the assumptions-hypothesis-data process with an emphasis on company operations, cash flow modeling, partnerships, and scaling the proposed business model.

Phase Shift activities, whether in Phase I or Phase II, are syllabus-based (structured) with supported instruction and customized coaching. Coaches are assigned to each participant company to guide real-time assessment and adjustment of the process, and the programs are provided at no-cost to the awardee by a DOE-selected vendor. There are no additional budget requirements for program participation in either Phase I or Phase II.

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<sup>1</sup> For more information regarding the definition and use of the Business Model Canvas, please refer the following link: <https://steveblank.com/category/business-model-versus-business-plan/>.

Fundamentally, TABA services are business consulting services provided to awardees via funding from the DOE Office of SBIR/STTR programs. These services must fall into the statutorily prescribed categories that are aimed at the next steps needed to move the technology closer to commercialization:

- product sales
- intellectual property protections
- limited patent prosecution costs
- market research
- market validation
- development of certifications and regulatory plans
- development of manufacturing plans

See the most recent DOE SBIR/STTR Funding Opportunity Announcement<sup>2</sup> for more details on allowable services. Awardees self-select the TABA business consulting services to be performed by either the DOE selected vendor (Phase I only) or their own third-party vendor(s).

During Phase I, the awardee has the option of using the DOE selected vendor ([Larta](#)) or their own third-party vendor with a TABA services budget of \$6,500. Because the DOE Phase II application requires applicants to expand the 4-page commercialization plan submitted with their Phase I application into 15-pages providing validation and expansion on the information originally provided, Phase I TABA services typically focus on addressing known gaps in their knowledge and/or perceived areas of weakness related to commercialization in an effort to develop the best possible 15-page DOE Phase II Commercialization Plan. Phase II awardees have the option of using third-party vendor(s) with a TABA services budget of \$50,000. TABA services are not meant to be training for the awardee team. Phase II TABA services are also self-selected and driven by the awardee to complement ongoing commercialization work.<sup>3</sup>

### How Phase Shift and TABA Work Together

In Phase I, the Phase Shift <> TABA integration is straightforward. The standard programs are run serially – Phase Shift first (typically, months three through five), then TABA (months six through the end of the grant period of performance or the Phase II submission, the earlier of the two) with the Phase I Principal Investigator (PI) Meeting being the dividing line. Unless the Phase I awardee elects to continue participating an extension of the Phase Shift, there is little scheduling overlap. Content-wise, Phase Shift customer discovery will illuminate how well an awardee understands who their customer is, what the customer values, and how to bring a product to the chosen market. Phase Shift customer discovery will also provide additional market context to inform on competitive positioning and value-based pricing. TABA services can then be used to fill in gaps identified through the Phase Shift discovery effort, to enhance preparation of the Phase II Application Commercialization Plan. The end goal of the Phase I offerings is to have the awardee best-understand the commercial elements of their company and write the best-possible Phase II Commercialization plan with their Phase II application.

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<sup>2</sup> Link to most-recent Funding Opportunity Announcement as of the writing of this paper: <https://science.osti.gov/sbir/Funding-Opportunities>.

<sup>3</sup>If the awardee elects to use a third-party vendor(s) for TABA services in either Phase I or Phase II, the awardee **MUST budget** the additional funds over and above the award maximum (\$6.5K for Phase I and \$50K for Phase II), provide budget justification and a letter(s) of commitment from the third-party vendor(s). In Phase II, there is no DOE selected TABA vendor so all applicants must budget to use TABA funds.

In Phase II, Phase Shift <> TABA integration and collaboration is critical. The programs are run in parallel and solely at the direction of the awardee team. Awardees have two opportunities to join a Phase Shift Phase II cohort – during year 1 or year 2 of their Phase II award. However, eligibility to participate is dependent upon the awardee having participated in the Phase Shift program during Phase I<sup>4</sup>. Phase II TABA services are available for the duration of the period of performance, so there likely will be schedule overlap when the awardee chooses to participate in both programs. DOE recommends that TABA services be sequenced to complement work from Phase Shift and vice-versa in order to drive maximum impact and efficient use of resources.

The objective of both Phase II programs is to further prepare the awardee for successful Phase III commercialization of the DOE-funded SBIR/STTR technology. Whether in Phase I or Phase II, the DOE Office of SBIR/STTR Programs highly recommends that awardees fully utilize all Phase Shift and TABA programs which are provided at no cost to awardees by the DOE Office of SBIR/STTR Programs.

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<sup>4</sup>There are plans to broaden eligibility in future years allowing Phase II awardees that did not participate in the Phase Shift program during Phase I to join a Phase I Phase Shift program during Year 1 and an Phase Shift GO program during Year 2. With no guarantee of program expansion, the DOE Office of SBIR/STTR programs highly recommends participation in Phase I Phase Shift programs when offered during Phase I.