VERSION 3

Version 3 updates links to DARPA-specific submission templates (changes highlighted)

Defense Advanced Research Projects Agency (DARPA)
DoD 25.4 Small Business Innovation Research (SBIR)
Annual Broad Agency Announcement (BAA)
Proposal Submission Instructions
Release 2

INTRODUCTION

DARPA's mission is to make strategic, early investments in breakthrough science and technology that will have long-term positive impacts on our national security. As part of this mission, DARPA makes high-risk, high-reward investments in science and technology that have the potential to disrupt current understandings and/or approaches. The pace of discovery in both science and technology is accelerating worldwide, resulting in new fields of study and the identification of scientific areas ripe for small business utilization through the SBIR and Small Business Technology Transfer (STTR) programs. Small businesses are critical for developing technology to support national security. Proposers are encouraged to consider whether the Research/Research and Development (R/R&D) being proposed to Department of Defense (DoD) Components also has private sector potential, either for the proposed application or as a base for other applications. The topics below focus on technical domains important to DARPA's mission, pursuing innovative research concepts that fall within one of its technology offices. More information about DARPA's technical domains and research topics of interest can be found at https://www.darpa.mil/research. DARPA offers free resources through DARPAConnect to help potential performers navigate DARPA, including "Tips for DARPA Proposal Success." Join DARPAConnect at www.DARPAConnect.us to leverage on-demand learning and networking resources.

Proposers responding to a topic in this BAA must follow all general instructions provided in the DoD SBIR Program BAA. DARPA requirements, in addition to or deviating from the DoD SBIR Program BAA, are provided in the instructions below. All DARPA SBIR and STTR proposals must be submitted electronically through the Defense SBIR/STTR Innovation Portal (DSIP) as described in the Proposal Preparation and Submission sections of these instructions. It is recommended that firms register as soon as possible upon identification of a proposal opportunity to avoid delays in the proposal submission process. Proposers are encouraged to submit proposals as early as possible to avoid unexpected delays due to a high volume of traffic during the final hours before a BAA closes. *DARPA will not accept any late proposals.*

Proposers are encouraged to thoroughly review the DoD SBIR Program BAA and register for the Defense SBIR/STTR Innovation Portal (DSIP) Listserv to remain apprised of important programmatic and contractual changes.

- The DoD SBIR Program BAA is located at: https://www.dodsbirsttr.mil/submissions/solicitation-documents/active-solicitations. Please select the tab for the appropriate BAA cycle.
- Register for the DSIP Listserv at https://www.dodsbirsttr.mil/submissions/login.

Specific questions on the administration of the DARPA Program and these proposal preparation instructions should be directed to DARPA Small Business Programs Office at SBIR_BAA@darpa.mil. DSIP Topic Q&A will NOT be available for these DARPA topics. Technical questions related to improving the understanding of a topic's requirements must be submitted to SBIR_BAA@darpa.mil by the deadline listed below. The deadline for technical question submission is December 31, 2024.

PHASE I PROPOSAL GUIDELINES

The Defense SBIR/STTR Innovation Portal (DSIP) is the official portal for DoD SBIR/STTR proposal submission. Proposers are required to submit proposals via DSIP; proposals submitted by any other means will be disregarded. Detailed instructions regarding registration and proposal submission via DSIP are provided in Appendix A.

Current Release Award Structure by Topic

White Paper & Slide Deck Proposal

Topic Number	Phase I			
	Technical Volume		Award Amount	Period of Performance (PoP)
	White Paper	Slide Deck		
HR0011SB20254-02	15 pages	5 pages	$250,000	5 months

Technical Volume (Volume 2) – White Paper & Slide Deck Format
The white paper shall not exceed 15 pages, and the slide deck shall not exceed five (5) pages. For information on the content of each of these elements of the Technical Volume and the commercialization strategy, please see Appendix A: DARPA PHASE I PROPOSAL INSTRUCTIONS.

Content of the Technical Volume
Proposers should refer to the DARPA Phase I Proposal Instructions provided in Appendix A. The DARPA SBIR/STTR Phase I Technical Volume template is available on the DARPA Small Business site (https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics).

Cost Volume (Volume 3)
Please see the chart above for award amounts listed by topic. Proposers are required to use the Phase I – Volume 3: Cost Proposal Template (Excel Spreadsheet) provided on the DARPA Small Business site (https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics).

Content of the Cost Volume
Proposers should refer to the DARPA Phase I Proposal Instructions, provided in Appendix A, and use the template found on the DARPA Small Business site (https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics).

Company Commercialization Report (CCR) (Volume 4)
Completion of the CCR as Volume 4 of the proposal submission in DSIP is required. Please refer to the DoD SBIR Program BAA for full details on this requirement. Information contained in the CCR will not be considered by DARPA during proposal evaluations.

Supporting Documents (Volume 5)
In addition to the documents required by DoD, small businesses may also submit additional documentation to support the Technical Volume (Volume 2) and the Cost Volume (Volume 3) in Volume 5. See Appendix A for required certifications that must be included in Volume 5. For additional information, see the SBIR 25.4 Annual Program Broad Agency Announcement (BAA) at https://www.dodsbirsttr.mil/submissions/solicitation-documents/active-solicitations.

DIRECT TO PHASE II PROPOSAL GUIDELINES

Proposers should refer to the DARPA Direct to Phase II Proposal Instructions provided in Appendix B.

Current Release Award Structure by Topic

Topic Number	Direct to Phase II				
	Technical Volume	Award Amount	Period of Performance (PoP)	Option Amount	Option PoP
HR0011SB20254-01	35 pages	$1,200,000	24 months	$600,000	12 months
HR0011SB20254-03	35 pages	$1,200,000	24 months	$600,000	10 months

Technical Volume (Volume 2) –Standard Format (35-pages)
If a proposer can provide adequate documentation to substantiate that the scientific and technical merit and feasibility described in the Phase I section of the topic has been met and describes the potential commercial applications, the Direct to Phase II (DP2) authority allows the Department of Defense (DoD) to make an award to a small business concern under Phase II of the SBIR program without regard to whether the small business concern was provided an award under Phase I of an SBIR program. This topic is accepting DP2 proposal submissions.

DP2 Feasibility Documentation shall not exceed 10 pages. DP2 Technical Proposal shall not exceed 20 pages. Phase II commercialization strategy shall not exceed five (5) pages. This should be the last section of the Technical Volume.

Content of the Technical Volume
Proposers should refer to the DARPA DP2 Proposal Instructions provided in Appendix B. The DARPA SBIR/STTR DP2 Technical Volume template is available on the DARPA Small Business site (https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics).

Cost Volume (Volume 3)
Please see the chart above for award amounts listed by topic. Proposers are required to use the Direct to Phase II – Volume 3: Cost Proposal Template (Excel Spreadsheet) provided on the DARPA Small Business site (https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics).

NOTE: Subcontractors are highly encouraged to submit unsanitized costs using this template directly to DARPA at SBIR_BAA@darpa.mil.

Content of the Cost Volume
Proposers should refer to the DARPA DP2 Proposal Instructions, provided in Appendix B and in the Cost Template found on the DARPA Small Business site (https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics).

Company Commercialization Report (CCR) (Volume 4)
Completion of the CCR as Volume 4 of the proposal submission in DSIP is required. Please refer to the DoD SBIR Program BAA for full details on this requirement. DARPA will not consider information contained in the CCR during proposal evaluations.

Supporting Documents (Volume 5)

In addition to the documents required by DoD, small businesses may submit additional documentation to support the Technical Volume (Volume 2) and the Cost Volume (Volume 3) in Volume 5. See Appendix B for required certifications that must be included in Volume 5. For additional information, see the SBIR 25.4 Annual Program Broad Agency Announcement (BAA) at https://www.dodsbirsttr.mil/submissions/solicitation-documents/active-solicitations.

PHASE II PROPOSAL GUIDELINES

Phase II proposals may only be submitted by Phase I awardees. Should DARPA have funding available and decide to proceed with a Phase II proposal, proposers awarded a Phase I contract will be eligible to submit a proposal for Phase II and will be contacted to do so by the DARPA Small Business Programs Office at the appropriate time during their Phase I period of performance. Phase II proposals will be evaluated in accordance with the applicable DoD or DARPA SBIR BAA. Phase II selection(s) are at the sole discretion of the Government and are subject to funding availability and Phase I performance. Phase II Instructions are available at https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics.

Current Release Award Structure by Topic

Topic Number	Phase II				
	Technical Volume	Award Amount	Period of Performance (PoP)	Option Amount	Option PoP
HR0011SB20254- 02	25 pages	$1,200,000	24 months	$600,000	12 months

Technical Volume (Volume 2)

The technical volume is not to exceed 25 pages. The Phase II commercialization strategy shall not exceed five (5) pages. This should be the last section of the Technical Volume and is included in the 25-page total. Any pages in the technical volume over 25 pages will not be considered in proposal evaluations.

DISCRETIONARY TECHNICAL AND BUSINESS ASSISTANCE (TABA)

DARPA does not offer TABA funding.

MAJORITY OWNERSHIP IN PART BY MULTIPLE VENTURE CAPITAL, HEDGE FUND, AND PRIVATE EQUITY FIRMS

Proposers that are more than 50% owned by multiple venture capital operating companies (VCOC), hedge funds (HF), private equity firms (PEF), or any combination of these as set forth in 13 C.F.R. § 121.702, are eligible to submit proposals in response to DARPA topics advertised within this BAA.

For proposers that are a member of this ownership class, the following must be satisfied for proposals to be accepted and evaluated:

a. Prior to submitting a proposal, firms must register with the SBA Company Registry Database.
b. The proposer, within its submission, must submit the Majority-Owned VCOC, HF, and PEF Certification. A copy of the SBIR VC Certification can be found on https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics. Include the SBIR VC Certification in the Supporting Documents (Volume 5).
c. Should a proposer become a member of this ownership class after submitting its proposal and prior to any receipt of a funding agreement, the proposer must immediately notify the Contracting

Officer, register in the appropriate SBA database, and submit the required certification which can be found at https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics.

EVALUATION AND SELECTION

All proposals will be evaluated in accordance with the evaluation criteria listed in the DoD SBIR Program BAA. DARPA will conduct an evaluation of each conforming proposal. Proposals that do not comply with the requirements detailed in this BAA and the research objective(s) of the corresponding topic are considered non-conforming and, therefore, are not evaluated nor considered for award.

Using the evaluation criteria, the Government will evaluate each proposal in its entirety, documenting the strengths and weaknesses relative to each evaluation criterion. Based on these identified strengths and weaknesses, determine the Government will determine the proposal's overall selectability for funding. Proposals will not be evaluated against each other during the evaluation process but rather evaluated on their own individual merit to determine how well the proposal meets the criteria stated in this BAA and the corresponding DARPA topic.

Awards will be made to proposers whose proposals are determined to be the most advantageous to the Government, consistent with instructions and evaluation criteria specified in the DoD SBIR Program BAA and availability of funding.

For the purposes of this proposal evaluation process, a selectable proposal is defined as follows:

Selectable: A selectable proposal is a proposal that the Government has evaluated against the evaluation criteria listed in the BAA and topic, and the strength of the overall proposal outweigh its weaknesses. Additionally, there are no accumulated weaknesses that would require extensive negotiations and/or a resubmitted proposal.

For the purposes of this proposal evaluation process, a non-selectable proposal is defined as follows:

Non-Selectable: A proposal is considered non-selectable when the Government has evaluated the proposal against the evaluation criteria listed in the BAA and topic, and the strengths of the overall proposal do not outweigh its weaknesses.

Proposing firms will be notified of selection or non-selection status for a Phase I or Direct to Phase II award within 90 calendar days of the closing date of the BAA. The Corporate Official (CO) indicated on the Proposal Cover Sheet will be notified by e-mail regarding proposal selection or non-selection. In accordance with the Small Business Administration (SBA) Policy Directive, Appendix I, paragraph 4, Method of Selection and Evaluation Criteria, subparagraph (d) Release of Proposal Review Information, DARPA will provide a technical evaluation narrative to the proposer for each proposal submitted in response to a topic. An informal feedback session may be requested by the proposing firm via e-mail at sbir@darpa.mil. The informal feedback is provided at the sole discretion of DARPA.

It is the policy of DARPA to treat all proposals as source selection information and to disclose their contents only for the purpose of evaluation. Restrictive notices notwithstanding, during the evaluation process, submissions may be handled by support contractors for administrative purposes and/or to assist with technical evaluation. All DARPA support contractors are expressly prohibited from performing DARPA-sponsored technical research and are bound by appropriate nondisclosure agreements. Input on technical aspects of the proposals may be solicited by DARPA from other Government and/or non-Government consultants/experts who are strictly bound by the appropriate nondisclosure requirements. No submissions in response to the BAA will be returned. Upon completion of the evaluation and selection process, an electronic copy of each proposal received will be retained at DARPA.

Proposal titles, abstracts, anticipated benefits, and keywords of proposals that are selected for contract award will undergo a DARPA Policy and Security Review. Proposal titles, abstracts, anticipated benefits, and keywords are subject to revision and/or redaction by DARPA. Final approved versions of proposal titles, abstracts, anticipated benefits, and keywords may appear on the DoD SBIR/STTR awards website and/or the SBA's SBIR/STTR award website (https://www.sbir.gov/awards).

Refer to the DoD SBIR Program BAA for procedures to protest this BAA.
As further prescribed in the Federal Acquisition Regulation (FAR(33.106(b), FAR 52.233-3, protests regarding the selection decision should be submitted to:

DARPA
Contracts Management Office (CMO)
675 N. Randolph Street
Arlington, VA 22203
E-mail: CMO_SBIRProtests@darpa.mil and sbir@darpa.mil

AWARD AND CONTRACT INFORMATION

1. General Award Information

Multiple awards are anticipated. DARPA may award FAR-based Government contracts (Firm- Fixed Price or Cost-Plus Reimbursement) or Other Transactions (OT) for Prototype agreements under the authority of 10 U.S.C. § 4022, subject to approval of the Contracting Officer or Agreements Officer, respectively. The resources made available for each topic issued under this BAA will depend on the quality of the proposals received and the availability of funds.

The Government reserves the right to select for negotiation all, some, one, or none of the proposals received in response to this BAA and to make awards with or without communications with proposers. Additionally, the Government reserves the right to award all, some, one, or none of the options on the contract(s)/agreement(s) based on available funding and the performer's technical performance. If warranted, portions of resulting awards may be segregated into pre-priced options. Additionally, DARPA reserves the right to accept proposals in their entirety or to select only portions of proposals for award. In the event that DARPA desires to award only portions of a proposal, negotiations may be opened with that proposer. The Government reserves the right to fund proposals in phases with options for continued work, as applicable.

The Government reserves the right to request any additional, necessary documentation once it makes the award instrument determination. The Government reserves the right to remove a proposal from award consideration should the parties fail to reach an agreement on award terms, conditions, and price within a reasonable time and/or the proposer fails to provide requested additional information within three (3) business days.

In all cases, the Government Contracting Officer reserves the right to select the award instrument type, regardless of the instrument type proposed, and to negotiate all instrument terms and conditions with selectees. DARPA will apply publication or other restrictions, as necessary, if it determines that the research resulting from the proposed effort will present a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense. Any award resulting from such a determination will include a requirement for DARPA permission before publishing any information or results on the program. For more information on publication restrictions, see the DoD SBIR 25.4 BAA.

Because of the desire to streamline the award negotiation and program execution process, proposals identified for negotiation will result in negotiating a type of instrument for award that is in the best interest of the Government. In the case of an OT for Prototype agreement under DARPA's authority to award OTs for prototype projects, 10 U.S.C. § 4022, use of an OT provides significant opportunities for flexible execution to assist in meeting DARPA's aggressive SBIR/STTR program goals.

All proposers that wish to consider an OT award should carefully read the following information:

The flexibility of the OT award instrument is beneficial to the program because the performer will be able to apply its commercial best practices as required to carry out the research project that may be outside of the Federal Acquisition Regulation (FAR) process-driven requirements. Streamlined practices will be used, such as milestone-driven performance, intended to reduce time and effort on award administration tasks and permit performers to focus on the research effort and rapid prototyping. Because of this ability, OTs provide the Agreements Officer the flexibility to create an award instrument that contains terms and conditions that promote commercial transition, reduce some administratively burdensome acquisition regulations, and meet SBIR/STTR program goals.

Proposers must only propose an OT agreement with fixed payable milestones. Fixed payable milestones are fixed payments based on successful completion of the milestone accomplishments agreed to in the milestone plan. Refer to the Other Transactions for Prototypes Fact Sheet and Other Transactions for Prototype Agreement, available at https://www.darpa.mil/work-with-us/communities/small-business/sbir-sttr-participate. Specific milestones will be based upon the research objectives detailed in the topic.

Please see https://acquisitioninnovation.darpa.mil/what-are-ots for more information on OTs.

2. Transition and Commercialization Support Program (TCSP)

DARPA will provide services to Phase II or DP2 awardees upon contract execution through TCSP at no cost to awardees. The TCSP goal is to maximize the potential for SBIR/STTR companies to move their technology beyond Phase II and into other research and development programs for further maturity or into solutions or products for DoD acquisition programs, other Federal programs, and/or the commercial market. Please visit https://www.darpa.mil/work-with-us/for-small-businesses/commercialization-continued for more information on DARPA TCSP.

3. Embedded Entrepreneurship Initiative

Awardees of SBIR funding pursuant to this BAA may be eligible to participate in the DARPA Embedded Entrepreneurship Initiative (EEI). An invitation to participate in EEI is at the sole discretion of the Government based on evaluation of technical and commercial factors and is subject to program balance and the availability of funding. EEI is a limited scope program offered by DARPA, at the Agency's discretion, to a small subset of awardees. The goal of DARPA's EEI is to increase the likelihood that DARPA-funded technologies take root in the U.S. and provide new capabilities for national defense. EEI supports DARPA's mission "to make pivotal investments in breakthrough technologies and capabilities for national security" by accelerating the transition of innovations out of the lab and into new capabilities for the Department of Defense (DoD). EEI investment supports development of a robust and deliberate Go-to-Market strategy for DARPA-funded advanced technology, into high-value products and capabilities for the government and commercial markets, and positions DARPA awardees to attract U.S. private investment. The following is for informational and planning purposes only and does not constitute solicitation of proposals to EEI.

There are three elements to DARPA's EEI: (1) A Senior Commercialization Advisor (SCA) from DARPA who works with the Program Manager (PM) to examine the business case for the awardee's technology and uses commercial methodologies to identify steps toward achieving a successful transition of technology to the government and commercial markets; (2) Connections to potential U.S. industry and private investor partners via EEI's Investor Working Groups; and (3) Additional funding to hire an embedded entrepreneur to achieve specific milestones in a Go-to-Market strategy for transitioning the technology into products that serve both defense and commercial markets. This embedded entrepreneur's qualifications should include business experience within the target industries of interest, experience in commercializing early-stage technology, and the ability to communicate and interact with technical and non-technical stakeholders, and customers. Funding for EEI is typically no more than $310,000 per awardee over the duration of the award. An awardee will attend one commercialization workshop, and also may apportion EEI funding to hire more than one embedded entrepreneur, if achieving the milestones requires a unique expertise that can be obtained without exceeding the awardee's total EEI funding.

EEI Application Process:
After receiving an SBIR/STTR Phase II award, awardees interested in being considered for EEI should notify their DARPA PM during the period of performance. If the DARPA PM determines that EEI could be of benefit to transition the technology to product(s) the Government needs, the PM will refer the performer to the DARPA Commercial Strategy Team. The SCA will then contact the performer, assess fitness for EEI and determine, in consultation with the PM, and Commercial Strategy Team, whether or not to invite the performer to participate in the EEI. Factors that are considered in determining fitness for EEI include DoD/Government need for the technology; competitive approaches to enable a similar capability or product; risks and impact of the Government's being unable to access the technology from a sustainable source; Government and commercial markets for the technology; cost and affordability; manufacturability and scalability; supply chain requirements and barriers; regulatory requirements and timelines; intellectual property and Government use rights, and available funding.

After SCA review, the Commercial Strategy Team may request the SBIR/STTR awardee to submit additional tasks for review.

EEI awards are at the sole discretion of DARPA and are subject to program balance and the availability of funding. For more information, please refer to the EEI website https://eei.darpa.mil/.

ADDITIONAL INFORMATION
DARPA intends to use electronic mail for all correspondence regarding these topics. Questions related to the technical aspect of the research objectives and awards specifically related to a topic should be e-mailed to SBIR_BAA@darpa.mil. Please reference the topic number in the subject line. All questions must be in English and must include the name, e-mail address, and the telephone number of a point of contact.

DARPA will attempt to answer questions in a timely manner; however, questions submitted within seven (7) calendar days of the proposal due date listed herein may not be answered. DARPA will post a consolidated Frequently Asked Questions (FAQ) document. To access the posting please visit: https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics. Under the topic number summary, there will be a link to the FAQ. The FAQ will be updated on an ongoing basis until one week prior to the proposal due date.

Technical support for the Defense SBIR/STTR Innovation Portal (DSIP) is available Monday through Friday, 9:00 a.m. – 5:00 p.m. ET. Requests for technical support must be emailed to DoDSBIRSupport@reisystems.com with a copy to SBIR_BAA@darpa.mil.

DARPA SBIR 25.4 Topic Index
Release 2

HR0011SB20254-01 TITLE: Non-destructive Viral ID

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Advanced Computing and Software; Biotechnology

OBJECTIVE: Performers will develop field-portable, low size, weight, and power (SWaP) technology for non-destructive viral identification.

DESCRIPTION: Warfighters are often deployed to emerging disease hotspots. To help mitigate potential exposure risks, DoD entities tasked with force health protection [1] rapidly assess, often on-site, a range of sample types for potential biological threats. Current rapid on-site identification (ID) methods include sequencing [2,3] and lateral flow assays (aka dipstick tests) [4], which destroy both the sample & the organism(s), inhibiting further analysis. While sequencing costs continue to decrease and cheap lateral flow assays continue to increase in organism scope, forward operators often triage the number of sites and samples collected due to resource, personnel, and time constraints [5]. Recent advances in metasurfaces [6,7]7, optical waveguides [8], microfluidics [9], and (super)high resolution imaging [10], now suggest accurate organism ID and viability maintenance can co-occur; however, current non-destructive systems lack field utility due to their lab-centric designs [7]. This SBIR will address both the significant limitations to rapid, on-site biosurveillance in resource constrained environments and the lab-centric designs for non-destructive pathogen ID by developing human-portable, low size, weight, and power (SWaP) technology to rapidly and non-destructively ID viruses on-site and in the field. Final Phase II prototypes must be: ≤ 1 ft3; ≤ 5 lbs; and ≤ 200-Watt peak power input, with all SWaP requirements inclusive of power delivery mechanisms, software/data processing, consumables, and reagents, and should function with a wide range of simulated clinical samples (e.g., blood, saliva, nasal swabs, etc.) and contrived environmental samples (swipes/wipes, chicken rinse, etc.). Systems should non-destructively ID viruses faster than current state-of-the-art sequencing and lateral flow assays (≤ 15 min per sample, not including sample pre-processing) while maintaining viral infectivity for downstream lab-based analysis. By the end of Phase II systems should ID viruses faster than current state-of-the-art sequencing and lateral flow assays (≤ 15 min per sample), in the field sample pre-processing, if any, should be no more than 20 minutes per sample, and viral ID should be independent of cloud connectivity (e.g., database access, analysis and ID can occur on the device without cloud access).

PHASE I: This topic is soliciting Direct to Phase II (DP2) proposals only. To be considered eligible for a DP2 award proposers must demonstrate their technology can achieve the following: (1) rapidly (≤ 45 minutes) identify ≥ 10 different eukaryotic viruses in monoculture across ≥ 5 viral groups (Baltimore classification), (2) differentiate ≥ 5 viruses in a mixed sample with ≥ 2 related viral strains (e.g., FluA H1N1 vs H3N2), and (3) function as a breadboard system with minimal user input. Specific data that directly supports the previous capabilities must be provided. Additionally, proposers must clearly define the testing schema that will be used to satisfy the below sensitivity, specificity, and limits of viral identification metrics. Finally, proposers must describe the developmental pathway of the existing breadboard system to the portable end of DP2 system, production scalability of the platform, potential to adapt the system to sample multiplexing (≥ 10 samples simultaneously), projected final unit cost and cost/test, and technology commercialization plans.

PHASE II: This DP2 effort (24 months) will focus on research, development, and testing to develop a portable, in-field, rapid, easily operable viral identification technology. Specifically, performers will utilize existing systems to: (1) increase fidelity of non-destructive ID technology, (2) increase viral diversity assessed, (3) increase sample matrix complexity with simulated clinical and/or environmental samples, and (4) meet SWaP requirements for system portability. Phase II will consist of three demonstrations, including an initial (month 9), interim (month 15) and a final (month 23) demonstration to take place in the field. Technology design reviews will be held at months 3, 11, and 17, with a design lock at month 18. The final technology must demonstrate its operability by non-expert users as well as the ability to demonstrate viral infectivity of collected samples. Performer must develop a mitigation plan to address potential risks. Additional transportation and shipping requirements must comply with current bio-safety handling protocols. Additional metrics are outlined below:

Milestone	Month 9 metric (initial)	Month 15 metric (interim)	Month 23 metric (final)
Identify viruses from liquid media – monocultures	≥ 20 viruses (including ≥ 2 related strains from each of ≥ 2 species) representing ≥ 5 viral groups	≥ 30 viruses (including ≥ 2 related strains from each of ≥ 3 species) representing ≥ 5 viral groups (including enveloped and non-enveloped)	≥ 50 viruses (including ≥ 3 related strains from each of ≥ 4 species) representing ≥ 5 viral groups (including enveloped and non-enveloped)
Identify viruses from liquid media – mixed cultures	≥ 5 different mixed samples with ≥ 5 viruses per sample (including ≥ 2 related strains from each of ≥ 2 species) representing ≥ 3 viral groups	≥ 10 different mixed samples with ≥ 10 viruses per sample (including ≥ 2 related strains from each of ≥ 3 species) representing ≥ 5 viral groups (including enveloped and non-enveloped)	≥ 20 different mixed samples with ≥ 10 viruses per sample (including ≥ 3 related strains from each of ≥ 4 species) representing ≥ 5 viral groups (including enveloped and non-enveloped)
Identify viruses from clinical (*e.g.,* blood, nasal swabs, saliva), and the environment (*e.g.*, swipe/wipe, chicken rinse) – contrived spiked samples	≥ 2 different contrived samples (clinical *and/or* environmental) with ≥ 5 viruses per sample (including ≥ 2 related strains from the same species) representing ≥ 3 viral groups per sample	≥ 5 different contrived samples (clinical *and* environmental) with ≥ 5 viruses per sample (including ≥ 2 related strains from the same species) representing ≥ 5 viral groups per sample (including enveloped and non-enveloped)	≥ 10 different contrived samples (clinical *and* environmental) with ≥ 10 viruses per sample (including ≥ 2 related strains from the same species) representing ≥ 5 viral groups per sample (including enveloped and non-enveloped)
Identification sensitivity/specificity (per Species)	90%	95%	99%
Identification sensitivity/specificity (per Strain)	80%	85%	90%
Viral Limit of Identification	≤ 1000 pfu / mL / virus	≤ 500 pfu / mL / virus	≤ 100 pfu / mL / virus
Sample input to Answer Time (Minutes)[1], volume	≤ 35, <5mL/sample	≤ 25, <5mL/sample	≤ 15, <2mL/sample
Size, Weight, & Power (SWaP)[2]	≤ 2 ft^3; ≤ 15 lbs; and ≤ 400-Watt peak power input	≤ 1 ft^3; ≤ 10 lbs; and ≤ 250-Watt peak power input	≤ 1 ft^3; ≤ 5 lbs; and ≤ 200-Watt peak power input

Phase II deliverables:

- Month 3: Progress report, preliminary design review including description of sample pre-processing
- Month 6: Progress report, initial demonstration plan, cost estimate (per sample)
- Month 9: Initial demonstration
- Month 10: Summary of initial demonstration
- Month 11: Interim design review

- Month 12: Progress report, interim demonstration plan, cost estimate (per sample)
- Month 15: Interim demonstration
- Month 16: Summary of interim demonstration
- Month 17: Critical Design Review
- Month 18: Progress report, technology design lock
- Month 20: Field demo plan; cost estimate (per sample)
- Month 21: Progress report, commercialization plan
- Month 23: Field demonstration
- Month 24: Summary report

DP2 Option: The Phase II option will utilize the fieldable technology from Phase II and add naturally derived environmental samples and decrease the viral limit of detection. Phase II option will consist of two demonstrations, including an interim (month 6) and a final (month 11). A final summary report will include an updated per sample cost estimate, plan for manufacturing, and detailed plan for alternative technology applications and advancements as necessary.

Milestone	**Month 6 metric (interim)**	**Month 11 metric (final)**
Identify viruses from the environment (*e.g.,* soil, wastewater, aerosol filters) – natural spiked samples	≥ 2 different natural samples with ≥ 5 viruses per sample (including ≥ 2 related strains from the same species) representing ≥ 3 viral groups per sample (including enveloped and non-enveloped)	≥ 10 different natural samples (*must include soil and wastewater*) with ≥ 15 viruses per sample (including ≥ 2 related strains from the same species) representing ≥ 5 viral groups per sample (including enveloped and non-enveloped)
Identification Sensitivity/Specificity (per species)	99%	99%
Identification Sensitivity/Specificity (per strain)	95%	99%
Reproducibility of Virus Identification (Replicate Tests)	99%	99%
Viral Limit of Identification	≤ 10 pfu / sample / virus	≤ 10 pfu / sample / virus
Sample input to Answer Time (Minutes)	See Phase II Final	See Phase II Final
Size, Weight, & Power (SWaP)	See Phase II Final	See Phase II Final

Phase II Option Deliverables:

- Month 1: Progress report and outline for environmental sample acquisition
- Month 3: Progress report
- Month 6: Interim demonstration and report
- Month 9: Progress report
- Month 11: Final demonstration and summary report

PHASE III DUAL USE APPLICATIONS: If successful, a system for rapid viral identification would have a range of applications within commercial industry and the US government including the DoD. Determining pathogens that may contaminate products or otherwise pose a health risk requires rapid detection and identification of infectious organisms. Current methods for monitoring often require samples to be transported back to labs and/or result in the destruction of the sample leading to loss of pathogen viability. Enabling on-site testing would substantially increase the throughput for sample monitoring. Additionally, such a system would advance the US governments biological surveillance capabilities. Adoption into existing workflows for field sampling & testing is likely.

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KEYWORDS: Viral Identification, Biodefense, Field-Forward, Low power, Threat Assessment, Biotechnology, Microfluidics, Pathogen, High-throughput

HR0011SB20254-02 TITLE: Language Models for Veteran Suicide Prevention (LM4VSP)

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Trusted AI and Autonomy

OBJECTIVE: The objective of the Language Models for Veteran Suicide Prevention (LM4VSP) SBIR topic is to develop a conversational artificial intelligence (AI) clinical co-pilot, based on Language Models, to augment the ability of mental health care professionals to care for and interact with patients at risk of suicide.

DESCRIPTION: On September 22, 2021, the US House Veterans Affairs Committee held a hearing entitled, "Veteran Suicide Prevention: Innovative Research and Expanded Public Health Efforts" [1]. The hearing followed the release of annual data from the US Department of Veterans Affairs showing that the disproportionate rate of veteran suicide is a public health crisis [2]. Although there is no single reason why veterans commit suicide, evidence suggests that stable housing, financial security, access to healthcare, addressing social isolation and loneliness, and treating the effects of trauma are important components of a comprehensive suicide prevention strategy; all of which require coordination and cooperation across families, communities, and at all levels of government.

Recent advances in AI, and specifically LMs, have the potential to help lessen the effects of social isolation/loneliness and trauma. According to a 2019 report on "Sleep and timing of death by suicide among US Veterans 2006-2015" [McCarthy, et al. 2019], the raw proportion of veteran suicides peaks between the hours of 1000 and 1200; however, the peak prevalence of suicide, after accounting for the population being awake, is between the hours of 0000 and 0300 ($p < 0.00001$, $F = 0.88$). The highest Standardized Incidence Ratio (SIR) is at midnight; US Veterans are eight times more likely to die by suicide than expected given the population awake (SIR = 8.17; 95% Confidence Interval = 7.45-8.94). In other words, when clinical help is likely unavailable or difficult to access, technology has the potential to provide critical assistance.

Recent advances in the field of natural language processing have allowed LMs (for example, Chat GPT (Generative Pre-trained Transformer)) to be fine-tuned using reinforcement learning based on human feedback [3]. Prior efforts have shown that it is possible to create a highly conversational model based on 40,000 pieces of feedback [4]. Other recent research work in the field suggests promising results in prompt engineering [5], using memory-based machine learning with dramatic improvements in the LM's ability to stay on task, and return more accurate and precise results. [6]

LM4VSP seeks to develop a clinical co-pilot based on LMs specific to the mental health subdomain, and in close collaboration with mental health subject matter experts (SMEs). The goal is for the LM4VSP clinical co-pilot to enable caregivers to offer around-the-clock assistance and accelerate their understanding and assessments and improve the effectiveness of intervention.

PHASE I: Phase I will focus on producing a feasibility study and proof-of-concept model of the LM4VSP clinical co-pilot. The Phase I effort should include, at a minimum:

- the identification and acquisition of relevant domain data, e.g., anonymized mental health, battlefield, etc.;
- the identification and engagement of SMEs, e.g., mental health professionals;
- identification of key trigger points and ranges of appropriate responses in collaboration with mental health SMEs;
- identification of major categories of stress and trauma and best practices for their management; identification of trigger points or categories that have the highest probability of successful technology-assisted intervention;

- assessment of current approaches in the use of language models to detect mental health classes; and development of a proof-of-concept model.

Schedule/Milestones/Deliverables: Proposers will execute the research and development (R&D) plan as described in their proposals, including the below deliverables. Proposers that anticipate including Human Subjects Research (HSR) in their approach must comply with the approval procedures detailed at http://www.darpa.mil/work-with-us/additional-baa. Proposers planning to use HSR are highly encouraged to clearly segregate research tasks from human testing tasks to allow for partial funding while internal and DoD approvals are obtained.

- Months 2 and 4: report detailing technical progress made to date, tasks accomplished, current risks/mitigations, plan for the remainder of Phase I (e.g., tasks to be accomplished, planned activities/trips/meeting), trip/meeting summaries, a summary of any potential issues or problem areas (technical or financial) that require the attention of the DARPA PM, and updates on (if applicable) Institutional Review Board (IRB) and Human Research Protection Office (HRPO) approvals or subject enrollment when approvals are obtained. Reports may be in the form of Microsoft Word or PowerPoint documents.
- Month 5:
  - final LM4VSP feasibility study report; and,
  - final LM4VSP proof-of-concept model.

PHASE II: Phase II will focus on the development of a prototype LM4VSP clinical co-pilot, trained on a LM that is fine-tuned on the mental health subdomain and capable of producing high-fidelity and appropriate responses as determined by clinical SMEs. The Phase II effort should include, at a minimum:

- Identification of key metrics for evaluation of performance;
- Identification of gaps and shortcomings of existing LMs and transformer-based models to be used for baseline system comparisons;
- Development of a labeled dataset of anonymized mental health data;
- Development of a prototype LM4VSP clinical co-pilot.

Phase II will culminate in an evaluation of the LM4VSP clinical co-pilot prototype capability by mental health clinicians.

Schedule/Milestones/Deliverables: Proposers will execute the R&D plan as described in their proposals, including the below deliverables. Proposers that anticipate including HSR in their approach must comply with the approval procedures detailed at http://www.darpa.mil/work-with-us/additional-baa Proposers planning to use HSR are highly encouraged to clearly segregate research tasks from human testing tasks to allow for partial funding while internal and DoD approvals are obtained.

- Quarterly: reports detailing technical progress made to date, tasks accomplished, current risks/mitigations, plan for the remainder of Phase 2 (e.g., tasks to be accomplished, planned activities/trips/meeting), trip/meeting summaries, a summary of any potential issues or problem areas (technical or financial) that require the attention of the DARPA PM, and updates on (if applicable) IRB and HRPO approvals or subject enrollment when approvals are obtained. Reports may be in the form of Microsoft Word or PowerPoint documents.
- Month 24: Final LM4VSP delivery/demonstration of capability.
- Month 36 (Phase II Option period):
  - Final Phase II Option period technical report including details of LM4VSP clinical co-pilot prototype efficacy against other state-of-the-art platforms, including quantitative metrics for assessment; and,
  - Final LM4VSP delivery/demonstration of capability.

PHASE III DUAL USE APPLICATIONS: LM4VSP has potential applications across the DoD and industry. For DoD, successful LM4VSP approaches will provide the ability to augment the services provided by military mental health clinicians to veterans at risk of suicide. LM4VSP has the same applicability for industry/the commercial sector. Phase III refers to work that derives from, extends, or completes an effort made under prior SBIR funding agreements, but is funded by sources other than the SBIR program. The Phase III work will be oriented towards transition and commercialization of the developed LM4VSP prototype. For Phase III, the proposer is required to obtain funding from either the private sector, a non-SBIR Government source, or both, to develop the prototype into a viable product or non-R&D service for sale in government or private sector markets. LM4VSP solutions will support national efforts to improve critical mental healthcare support for veterans and their families.

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KEYWORDS: Language Models, Suicide Prevention, Mental Health, Natural Language Models, Clinician Assistant, Training Data

HR0011SB20254-03 TITLE: Multi-factor Continuous Authentication for Wearable Defense Equipment (MCAWDE)

OUSD (R&E) CRITICAL TECHNOLOGY AREA(S): Advanced Computing and Software

OBJECTIVE: The goal of Multi-factor Continuous Authentication for Wearable Defense Equipment (MCAWDE) topic is to develop and demonstrate novel, continuous, multi-factor authentication solutions for small weight and power devices.

DESCRIPTION: Internet-of-Things (IoT) devices have seen unprecedented growth [1] and yet remain one of the weakest links when it comes to cybersecurity [2]. User and device authentication for battery-operated IoT devices (e.g., smartphones and wearables) is challenging due to limitations on the available energy, user interface, and processing power [3]. Over the last few years, multiple authentication techniques have been developed to address these challenges, for example, location-based authentication techniques [4] and gait-based authentication techniques [5]. However, existing techniques face challenges in terms of performance overhead, power consumption, and overall efficiency of cryptographic operations [6]. To address these challenges, DARPA seeks novel, continuous [7], multi-factor authentication [8] solutions for small weight and power devices.

PHASE I: The MCAWDE SBIR topic is soliciting Direct to Phase 2 (DP2) proposals only, which must include supporting documentation of Phase I feasibility. Phase I feasibility must be demonstrated through evidence of: a completed proof of concept/principal or basic prototype; definition and characterization of properties/capabilities desirable for DoD/government and civilian/commercial use; and capability/performance comparisons with existing state-of-the-art technologies/methodologies (competing approaches).

Entities interested in submitting a DP2 proposal must provide documentation to substantiate that the scientific/technical merit and feasibility described above has been achieved and describe the potential commercial applications. DP2 Phase I feasibility documentation should include, at a minimum:

- technical reports describing results and conclusions of existing work, particularly regarding the commercial opportunity or DoD insertion opportunity, risks/mitigations, and technology assessments
- presentation materials and/or white papers/technical papers
- test and measurement data
- prototype designs/models
- performance projections, goals, or results in various use cases; and,
- documentation of related topics such as how the proposed MCAWDE solution can enable multi-factor continuous authentication for wearable defense equipment

The collection of Phase I feasibility material will verify mastery of the required content for DP2 consideration. DP2 proposers must also demonstrate knowledge, skills, and abilities in the technical areas of software engineering, cyber security, privacy, analytics, and machine learning. For detailed information on DP2 requirements and eligibility, please refer to the DoD Broad Agency Announcement and the DARPA Instructions for this topic.

PHASE II: The goal of MCAWDE is to develop and demonstrate novel, continuous, multi-factor authentication solutions for small weight and power devices. MCAWDE continuous, multi-factor authentication techniques should employ lightweight device sensors to enable robust and efficient user and device authentication. Notional proposed techniques could incorporate gait signals (captured from inertial sensors such as accelerometers and gyroscopes), heart rate sensors, and stress levels based on

galvanic skin response [9, 10] to name a few. Ideally, the chosen device sensors should be relevant to or easily extensible to current devices that a warfighter might use, e.g., see [11]. Proposals are encouraged to employ multiple sensing modalities to achieve robust authentication.
Because there is a clear trade-off between the frequency of sensor readings, and power and processing overhead, any proposed solutions should require little to no user interaction for authentication. Moreover, any proposed solutions should operate in real-time and allow for privacy considerations.
DP2 proposals should:

- describe a proposed framework design/architecture to achieve the above stated goals
- present a plan for maturation of the framework to a demonstrable prototype; and,
- detail a test plan, complete with proposed quantitative metrics for the prototype performance

Phase II will culminate in a prototype demonstration using one or more compelling use cases consistent with commercial opportunities and/or insertion into a DARPA program, for example, the Open Programmable Secure 5G (OPS-5G) program [12], which aims, in part, to develop techniques and security architectures enabling security at scale across devices with widely disparate size, weight, and power.

The Phase II Option period will further mature the technology for insertion into a DoD Acquisition Program, another Federal agency, or commercialization into the private sector.
The below schedule of milestones and deliverables is provided to establish expectations and desired results/end products for the Phase II and Phase II Option period efforts.

Schedule/Milestones/Deliverables: Proposers will execute the research and development (R&D) plan as described in their proposals, including the below: proposers that anticipate involving Human Subjects Research (HSR) must comply with the approval procedures detailed at http://www.darpa.mil/work-with-us/additional-baa. Proposers planning to use HSR are highly encouraged to clearly segregate research tasks from human testing tasks to allow for partial funding while internal and DoD approvals are obtained.

- Every 3 months: Quarterly technical progress reports detailing: technical progress to date, tasks accomplished, risks/mitigations, a technical plan for the remainder of Phase II (while this would normally report progress against the plan detailed in the proposal, it is understood that scientific discoveries, competition, and regulatory changes may all have impacts on the planned work and DARPA must be made aware of any revisions that result), planned activities, trip summaries, any potential issues or problem areas that require the attention of the DARPA PM, and updates on (if applicable) Institutional Review Board and Human Research Protection Office approvals or subject enrollment when approvals are obtained.
- Every 6 months: Technical progress briefings to the DARPA PM (these briefings may take place as part of the OPS-5G program Principal Investigator meetings).
- Month 24: Final architecture with documented details; a demonstration of the ability for continuous, multi-factor authentication of wearable defense equipment; documented application programming interfaces; and any other necessary documentation (e.g., commercialization plan).
- Month 29 (Phase II Option period): Interim report of matured prototype performance against existing state-of-the-art technologies, documenting key technical gaps towards productization.
- Month 34 (Phase II Option period): Final Phase II Option period technical report including prototype performance against existing state-of-the-art technologies, including quantitative metrics for assessment.

PHASE III DUAL USE APPLICATIONS: MCAWDE has potential applications across the DoD/government and commercially. For DoD/government, successful MCAWDE approaches are well-

suited for integration into warfighter wearable devices, such as smartwatches, and tactical defense equipment. MCAWDE has the same applicability for the commercial sector.
Phase III refers to work that derives from, extends, or completes an effort made under prior SBIR funding agreements, but is funded by sources other than the SBIR Program. The Phase III work will be oriented towards transition and commercialization of the developed MCAWDE technologies. For Phase III, the proposer is required to obtain funding from either the private sector, a non-SBIR Government source, or both, to develop the prototype into a viable product or non-R&D service for sale in government or private sector markets.

MCAWDE solutions will support national efforts to help secure government, commercial, and personal IoT devices. Results of MCAWDE are intended to improve understanding of the risks associated with the large threat surface created by IoT devices, across government and industry.

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KEYWORDS: Internet of Things, Multi-Factor Authentication, Wearables, Cyber Security, Continuous Authentication, Privacy

Appendix A: DARPA PHASE I PROPOSAL INSTRUCTIONS

I. Introduction

A complete proposal submission consists of:

Volume 1: Proposal Cover Sheet
Volume 2: Technical Volume
Volume 3: Cost Volume
Volume 4: Company Commercialization Report
Volume 5: Supporting Documents

- a. Verification of Eligibility of Small Business Joint Ventures (Attachment 3), if applicable
- b. Data Rights Assertions (if applicable)
- c. Other supporting documentation

A completed proposal submission in DSIP does NOT indicate that the mandatory supporting documents have been uploaded. It is the responsibility of the proposing small business concern to ensure that the mandatory documents listed above have been uploaded and included with the proposal submission.

Volume 6: Fraud, Waste and Abuse Training
Volume 7: Disclosures of Foreign Affiliations or Relationships to Foreign Countries

The Defense SBIR/STTR Innovation Portal (DSIP) provides a structure for building the proposal volumes and submitting a consolidated proposal package. If this is your first time submitting an SBIR proposal using DSIP, please review detailed training guides at https://www.dodsbirsttr.mil/submissions/learning-support/training-materials. It is the responsibility of the proposing firm to ensure that a complete proposal package is certified and submitted by the close date listed in the topic to which they are responding. ***DARPA will not accept late proposals.***

To assist in proposal development, templates for Volume 2: Technical Volume and Volume 3: Cost Volume have been provided as attachments on the DARPA Small Business website, under SBIR/STTR BAA Forms & Templates at https://www.darpa.mil/work-with-us/for-small-businesses/participate-sbir-sttr-program. Use of the DARPA Cost Proposal template is mandatory.

Proposers should ensure that they have an accurate and active entity registration on SAM.gov, and a complete NIST SP 800-171 DoD Assessment. The portal and instructions on how to complete the NIST assessment is located at https://www.sprs.csd.disa.mil/nistsp.htm

II. Proprietary Information

Proposers that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall follow instructions in the DoD SBIR 25.4/STTR 25.D BAA regarding marking propriety proposal information.

III. Phase I Proposal Instructions

a. Proposal Cover Sheet (Volume 1)

The Cover Sheet must include a brief technical abstract of no more than 3000 characters that describes the proposed research and development project with a discussion of anticipated benefits and potential commercial applications. **Do not include proprietary or classified information in the Proposal Cover Sheet**. If your proposal is selected for award, the technical abstract and discussion of anticipated benefits may be publicly released.

b. Format of the Technical Volume (Volume 2) – White Paper & Slide Deck

1. The Technical Volume must include two parts, PART ONE: white paper, and PART TWO: slide deck, combined as a single Portable Document Format (PDF) for upload to DSIP.

2. Type of File: The Technical Volume must be a single PDF file, including graphics. Perform a virus check before uploading the Technical Volume file. If a virus is detected, it may cause rejection of the proposal. Do not lock or encrypt the uploaded file. Do not include or embed active graphics such as videos, moving pictures, or other similar media in the document.

3. Length: The length of the white paper shall not exceed 15 pages, and the slide deck shall not exceed five (5) pages/slides. The Government will not consider pages in excess of the page count limitations.

4. Layout: Number all pages of your proposal consecutively. Font size should not be smaller than 10-point on standard 8-1/2" x 11" paper with one-inch margins. The header on each page of the Technical Volume should contain your company name, topic number, and proposal number assigned by DSIP when the Cover Sheet was created. The header may be included in the one-inch margin.

c. Content of the Technical Volume (Volume 2) – White Paper & Slide Deck

White Paper (not to exceed 15 pages). Provide the following information:
Goals and Impact: Clearly describe what is being proposed and what difference it will make (qualitatively and quantitatively), including a brief discussion on how this directly relates to the topic.

1. Technical Plan: Provide an explicit, detailed description of the Phase I approach. The Statement of Work should indicate what tasks are planned, how and where the work will be conducted, a schedule of major events, and the final product(s) to be delivered. The Phase I effort should attempt to determine the technical feasibility of the proposed concept. The methods planned to achieve each objective or task should be discussed explicitly and in detail.

2. Management and Capabilities: Designate key personnel who will be involved in the Phase I effort. Provide a summary of expertise of the team, including subcontractors and key personnel. Describe the organizational experience in this technology area, previous work not directly related to the proposed effort but similar, existing intellectual property required to complete the project, and any specialized facilities to be used as part of the project. List Government-furnished materials or data assumed to be available. Describe any specialized facilities to be used as part of the project, the extent of access to these facilities, and any biological containment, biosafety, and certification requirements.

3. Transition and Commercialization Plan (not to exceed five (5) pages):
    a) Describe the commercial product or DoD system to be developed.
    b) Discuss the potential end users – DoD, Federal, and/or private sector customers. Discuss your business model for this technology (i.e., how do you anticipate generating revenue with this technology?). Who are you selling to, directly or indirectly, a supplier, an integrator, or an end user?

c) Describe your company's funding history. Discuss how much additional funding above this proposed effort (include additional required technology development, staffing requirements, infrastructure requirements, intellectual property (IP) strategy costs, etc.) will be required to bring this technology to market and how you anticipate going about getting that funding (e.g., Government S&T contracts, investment).
d) Describe the timeline to maturity for sales or transition to an end user. Describe your IP strategy.
e) Describe the technology, market, team and business risks associated with this proposed effort and your plan to mitigate these risks.

Slide Deck (not to exceed five (5) slides). Provide the following information (convert the completed deck to a PDF and attach it to the white paper):

1. What are you trying to do and how does this directly relate to the topic?

2. Technology and commercial product: Specifically, what are you proposing to produce – software, system, application? Be specific on what your proposed technology development is targeting as an end state.

3. How is the technology approached today? Who is doing the research, development and delivering products/services? What are the current limitations in the technology and commercial marketplaces?

4. Management: Overview of team, facilities and qualifications.

5. Technical summary quad chart: Use template provided at https://www.darpa.mil/work-with-us/for-small-businesses/participate-sbir-sttr-program.

NOTE: All letters of recommendation, CVs, and Data Rights Assertions can be loaded in Volume 5: Supporting Documents.

d. Format of Cost Volume (Volume 3)

Proposers are required to use the Phase I – Volume 3: Cost Proposal Template (Excel Spreadsheet) provided at https://www.darpa.mil/work-with-us/for-small-businesses/participate-sbir-sttr-program.

e. Content of the Cost Volume (Volume 3)

Some items in the Cost Breakdown Guidance below may not apply to the proposed project. If such is the case, there is no need to provide information on each and every item.

ALL proposed costs should be accompanied by documentation to substantiate how the cost was derived. For example, if you proposed travel costs to attend a project-related meeting or conference, and used a travel website to compare flight costs, include a screenshot of the comparison. Similarly, if you proposed to purchase materials or equipment, and used the internet to search for the best source, include your market research for those items. You do not necessarily have to propose the cheapest item or supplier, but you should explain your decision to choose one item or supplier over another. It's important to provide enough information to allow contracting personnel to understand how the proposer plans to use the requested funds.

If selected for award, failure to include the documentation with your proposal will delay contract negotiation, and the proposer will be asked to submit the necessary documentation to the Contracting Officer to substantiate costs (e.g., cost estimates for equipment, materials, and consultants or subcontractors). It is important to respond as quickly as possible to the Contracting Officer's request for documentation.

Cost Breakdown Guidance:

- List all key personnel by name as well as by number of hours dedicated to the project as direct labor.
- Special tooling and test equipment and material costs may be included. The inclusion of equipment and material will be carefully reviewed relative to need and appropriateness for the work proposed. The purchase of special tooling and test equipment must, in the opinion of the Contracting Officer, be advantageous to the Government and should be related directly to the specific topic. These may include such items as innovative instrumentation and/or automatic test equipment. Title to property furnished by the Government or acquired with Government funds will be vested with DARPA; unless it is determined that transfer of title to the contractor would be more cost effective than recovery of the equipment by the DARPA.
- Cost sharing is permitted for proposals under this BAA; however, cost sharing is not required, nor will it be an evaluation factor in the consideration of a proposal.
- All subcontractor costs and consultant costs must be detailed at the same level as prime contractor costs regarding labor, travel, equipment, etc. Provide detailed substantiation of subcontractor costs in your cost proposal. Enter this information in the Explanatory Material section of the online cost proposal form. The Supporting Documents Volume (Volume 5) may be used if additional space is needed.
- If Subcontractors will be performing Fundamental Research under the effort please incorporate the following into proposal: 1) a separate statement of work (SOW) outlining the specific work that the proposer finds to qualify as Fundamental Research; OR 2) Within Prime contractor SOW identify which tasks are to be performed that are fundamental research.

For more information about cost proposals and accounting standards associated with contract awards, see the Defense Contract Audit Agency (DCAA) publication titled "Audit Process Overview – Information for Contractors" at http://www.dcaa.mil.

f. Company Commercialization Report (Volume 4)

The Company Commercialization Report (CCR) allows companies to report funding outcomes resulting from prior SBIR and STTR awards. The Company Commercialization Report (CCR) is required for Phase I and Direct to Phase II proposals. Please refer to the DoD SBIR Program BAA for full details on this requirement. Information contained in the CCR will not be considered by DARPA during proposal evaluations.

g. Supporting Documents (Volume 5)

In addition to required DoD documentation and certifications, small businesses may also submit additional documentation to support the Technical Volume (Volume 2) and the Cost Volume (Volume 3) in Volume 5. See Appendix A Introduction for required certifications that must be included in Volume 5. For additional information, see the SBIR 25.4 Annual Program Broad Agency Announcement (BAA) at https://www.dodsbirsttr.mil/submissions/solicitation-documents/active-solicitations

h. Fraud Waste and Abuse (Volume 6)

The Fraud, Waste and Abuse (FWA) training is required for Phase I and Direct to Phase II proposals. FWA training provides information on what represents FWA in the SBIR/STTR program, the most common mistakes that lead to FWA, as well as the penalties and ways to prevent FWA in your firm. This training material must be thoroughly reviewed once per year. Plan ahead and leave ample time to complete this training based on the proposal submission deadline. Knowingly and willfully making any false, fictitious, or fraudulent statements or representations may be a felony under the Federal Criminal False Statement Act (18 U.S.C. Sec 1001), punishable by a fine of up to $10,000, up to five years in prison, or both. Understanding the indicators and types of fraud, waste, and abuse that can occur is critical for the SBIR/STTR awardees' role in preventing the loss of research dollars.

i. Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Volume 7)

In accordance with Section 4 of the SBIR and STTR Extension Act of 2022 and the SBA SBIR/STTR Policy Directive, the DoD will review all proposals submitted in response to this BAA to assess security risks presented by small business concerns seeking a Federally funded award. Small business concerns must complete the Disclosures of Foreign Affiliations or Relationships to Foreign Countries webform in Volume 7 of the DSIP proposal submission (NOTE: PDF uploads will no longer be accepted). Full proposal submissions cannot be certified and submitted by the Corporate Official until Volume 7 is fully completed and the webform is submitted.

Please be aware that the Disclosures of Foreign Affiliations or Relationships to Foreign Countries WILL NOT be accepted as a Supporting Document in Volume 5 of the DSIP proposal submission. Do not upload any previous versions of this form to Volume 5.

For additional details, please refer to the DoD SBIR Program BAA.

APPENDIX B: DARPA DIRECT TO PHASE II (DP2) PROPOSAL INSTRUCTIONS

I. Introduction

A complete proposal submission consists of:

Volume 1: Proposal Cover Sheet
Volume 2: Technical Volume (feasibility documentation and technical proposal)
Volume 3: Cost Volume
Volume 4: Company Commercialization Report
Volume 5: Supporting Documents

a. Subcontract Pricing Considerations (if applicable)
b. Data Rights Assertions (if applicable)
c. Verification of Eligibility of Small Business Joint Ventures (Attachment 3), if applicable
d. Other supporting documentation

A completed proposal submission in DSIP does NOT indicate that the mandatory supporting documents have been uploaded. It is the responsibility of the proposing small business concern to ensure that the mandatory documents listed above have been uploaded and included with the proposal submission.

Volume 6: Fraud, Waste and Abuse Training
Volume 7: Disclosures of Foreign Affiliations or Relationships to Foreign Countries

The Defense SBIR/STTR Innovation Portal (DSIP) provides a structure for building the proposal volumes and submitting a consolidated proposal package. If this is your first time submitting an SBIR or STTR proposal using DSIP, please review detailed training guides at https://www.dodsbirsttr.mil/submissions/learning-support/training-materials. It is the responsibility of the proposing firm to ensure that a complete proposal package is certified and submitted by the close date listed in the topic to which they are responding. ***DARPA cannot accept late proposals.***

To assist in proposal development, templates for Volume 2: Technical Volume and Volume 3: Cost Volume have been provided as attachments to the announcement posted at https://www.dodsbirsttr.mil/submissions/login. Use of these templates is mandatory.

Proposers should ensure that they have an accurate and active entity registration on SAM.gov, and a complete NIST SP 800-171 DoD Assessment. The portal and instructions on how to complete the NIST assessment are located at https://www.sprs.csd.disa.mil/nistsp.htm.

II. Proprietary Information

Proposers that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall follow instructions in the DoD BAA regarding marking propriety proposal information.

III. DP2 Proposal Instructions

a. Proposal Cover Sheet (Volume 1)

The Cover Sheet must include a brief technical abstract of no more than 3000 characters that describes the proposed R&D project with a discussion of anticipated benefits and potential commercial applications.

Do not include proprietary or classified information in the Proposal Cover Sheet. If your proposal is selected for award, the technical abstract and discussion of anticipated benefits may be publicly released.

b. Format of Technical Volume (Volume 2) – Standard Proposal Format

1. The Technical Volume must include two parts, PART ONE: Feasibility Documentation and PART TWO: Technical Proposal.

2. Type of file: The Technical Volume must be a single Portable Document Format (PDF) file, including graphics. Perform a virus check before uploading the Technical Volume file. If a virus is detected, it may cause rejection of the proposal. **Do <u>not</u> lock or encrypt the uploaded file. Do not include or embed active graphics such as videos, moving pictures, or other similar media in the document**.

3. Length: The length of each part of the technical volume (Feasibility Documentation and Technical Proposal) will be specified by the corresponding topic. The Government will not consider pages in excess of the page count limitations.

4. Layout: Number all pages of your proposal consecutively. Font size should not be smaller than 10-point on standard 8-1/2” x 11” paper with one-inch margins. The header on each page of the Technical Volume should contain your company name, topic number, and proposal number assigned by DSIP when the Cover Sheet was created. The header may be included in the one-inch margin.

c. Content of the Technical Volume (Volume 2) – Standard Proposal Format

PART ONE: Feasibility Documentation

1. Provide documentation to substantiate that the scientific and technical merit and feasibility described in the Phase I section of the topic has been met and describe the potential commercial applications. Documentation should include all relevant information including, but not limited to: technical reports, test data, prototype designs/models, and performance goals/results.
2. Maximum page length for feasibility documentation will be specified by the topic. If you have references, include a reference list or works cited list on the last page of the feasibility documentation. This will count towards the page limit.
3. Work submitted within the feasibility documentation must have been substantially performed by the proposer and/or the Principal Investigator.
4. If technology in the feasibility documentation is subject to Intellectual Property (IP), the proposer must either own the IP, or must have obtained license rights to such technology prior to proposal submission, to enable it and its subcontractors to legally carry out the proposed work. Documentation of IP ownership or license rights shall be included in the Technical Volume of the proposal.
5. Include a one-page summary on Commercialization Potential addressing the following:
   a) Does the company contain marketing expertise and, if not, how will that expertise be brought into the company?
   b) Describe the potential for commercial (Government or private sector) application and the benefits expected to accrue from this commercialization.

DO NOT INCLUDE marketing material. Marketing material will NOT be evaluated.

PART TWO: Standard Technical Proposal

Significance of the Problem. Define the specific technical problem or opportunity addressed and its importance.

1. **Phase II Technical Objectives.** Enumerate the specific objectives of the Phase II work and describe the technical approach and methods to be used in meeting these objectives.

2. **Phase II Statement of Work.** The statement of work should provide an explicit, detailed description of the Phase II approach, indicate what is planned, how and where the work will be carried out, a schedule of major events, and the final product to be delivered. The methods planned to achieve each objective or task should be discussed explicitly and in detail. This section should be a substantial portion of the total proposal.
    a. Human/Animal Use: Proposers proposing research involving human and/or animal use are encouraged to separate these tasks in the technical proposal and cost proposal to avoid potential delay of contract award.
    b. Phase II Option Statement of Work (if applicable, specified in the corresponding topic). The statement of work should provide an explicit, detailed description of the activities planned during the Phase II Option, if exercised. Include how and where the work will be carried out, a schedule of major events, and the final product to be delivered. The methods planned to achieve each objective or task should be discussed explicitly and in detail.

3. **Related Work.** Describe significant activities directly related to the proposed effort, including any conducted by the PI, the proposer, consultants or others. Describe how these activities interface with the proposed project and discuss any planned coordination with outside sources. The proposal must persuade reviewers of the proposer's awareness of the state of the art in the specific topic. Describe previous work not directly related to the proposed effort but similar. Provide the following: (1) short description, (2) client for which work was performed (including individual to be contacted and phone number), and (3) date of completion.

5. **Relationship with Future Research or Research and Development.**
    a. State the anticipated results of the proposed approach if the project is successful.
    b. Discuss the significance of the Phase II effort in providing a foundation for Phase III research and development or commercialization effort.
    c. Identify the applicable clearances, certifications and approvals required to conduct Phase II testing and outline the plan for ensuring timely completion of said authorizations in support of Phase II research or research and development effort.

6. **Key Personnel.** Identify key personnel who will be involved in the Phase II effort including information on directly related education and experience. A concise resume of the PI, including a list of relevant publications (if any), must be included. All resumes count toward the page limitation. Identify any foreign nationals you expect to be involved on this project.

7. **Foreign Citizens.** Identify any foreign citizens or individuals holding dual citizenship expected to be involved on this project as a direct employee, subcontractor, or consultant. For these individuals, please specify their country of origin, the type of visa or work permit under which they are performing and an explanation of their anticipated level of involvement on this project. Refer to DoD SBIR 25.4/STTR 25.D BAA for more information.
   Supplemental information provided in response to this paragraph will be protected in accordance with the Privacy Act (5 U.S.C. § 552a), if applicable, and the Freedom of Information Act (5 U.S.C. § 552(b)(6)).

8. **Facilities/Equipment.** Describe available instrumentation and physical facilities necessary to carry out the Phase II effort. Items of equipment to be purchased (as detailed in the cost proposal) shall be justified under this section. Also state whether or not the 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.

9. **Subcontractors/Consultants.** Subcontractor means any supplier, distributor, vendor, firm, academic institution, research center, or other person or entity that furnishes supplies or services pursuant to a subcontract, at any tier. Involvement of a university or other subcontractors or consultants in the project may be appropriate. If such involvement is intended, it should be identified and described according to the Cost Breakdown Structure at https://www.dodsbirsttr.mil/submissions/learning-support/firm-templates. Please refer to DoD SBIR 25.4/STTR 25.D BAA for detailed eligibility requirements as it pertains to the use of subcontractors/consultants.

10. **Prior, Current or Pending Support of Similar Proposals or Awards.** If a proposal submitted in response to this topic is substantially the same as another proposal that was funded, is now being funded, or is pending with another Federal Agency, or another or the same DoD Component, you must reveal this on the Proposal Cover Sheet and provide the following information:
    a. Name and address of the Federal Agency(s) or DoD Component to which a proposal was submitted, will be submitted, or from which an award is expected or has been received.
    b. Date of proposal submission or date of award.
    c. Title of proposal.
    d. Name and title of the PI for each proposal submitted or award received.
    e. Title, number, and date of BAA(s) or solicitation(s) under which the proposal was submitted, will be submitted, or under which award is expected or has been received.
    f. If award was received, state contract number.
    g. Specify the applicable topics for each proposal submitted or award received.

    Note: If this does not apply, state in the proposal "No prior, current, or pending support for proposed work."

11. **Transition and Commercialization Strategy.** DARPA is equally interested in dual use commercialization of SBIR/STTR projects that result in products sold to the U.S. military, the private sector market, or both. DARPA expects explicit discussion of key activities to achieve this result in the transition and commercialization strategy part of the proposal. The Technical Volume of each Direct to Phase II proposal must include a transition and commercialization strategy section. The Phase II transition and commercialization strategy shall not exceed five (5) pages and will NOT count against the proposal page limit.

    Information contained in the commercialization strategy section will be used to determine suitability for participation in EEI. Selection for participation in EEI will be made independently following selection for SBIR/STTR award. Please refer to item 3 of the Award and Contract Information section of these Instructions for more information on the DARPA EEI and additional proposal requirements.

The transition and commercialization strategy should include the following elements:

a) **A summary of transition and commercialization activities conducted during Phase I, and the Technology Readiness Level (TRL) achieved.** Discuss the market, competitive landscape, potential stakeholders and end-users, and how the preliminary transition and commercialization path or paths may evolve during the Phase II project. Describe key proposed technical milestones during Phase II that will advance the technology towards product such as prototype development, laboratory and systems testing, integration, testing in operational environment, and demonstrations.
b) **Problem or Need Statement.** Briefly describe what you know of the problem, need, or requirement, and its significance relevant to a Department of Defense application and/or a private sector application that the SBIR/STTR project results would address. Is there a broader societal need you are trying to address? Please describe.
c) **Description of Product(s) and/or System Application(s).** Identify the commercial product(s) and/or DoD system(s), or system(s) under development, or potential new system(s). Identify the potential DoD end-users, Federal customers, and/or private sector customers who would likely use the technology.
d) **Business Model(s)/Procurement Mechanism(s).** Discuss your current business model hypothesis for bringing the technology to market. Describe plans to license, partner, or self-produce your product. How do you plan to generate revenue? Describe the resources you expect will be needed to implement your business models. Discuss your plan and expected timeline to secure these resources. Understanding DARPA's goal of creating and sustaining a U.S. military advantage, describe how you intend to develop your product and supply chains to enable this differentiation.
e) **Target Market.** Describe the market and addressable market for the innovation. Describe the customer sets you propose to target, their size, their growth rate, and the key reasons they would consider procuring the technology. Discuss the business economics and market drivers in the target industry. Describe competing technologies existent today on the market as well as those being developed in the lab. How has the market opportunity been validated? Describe the competition. How do you expect the competitive landscape may change by the time your product/service enters the market?
f) **Funding Requirements.** Describe your company's funding history. How much external financing have you raised? Describe your plans for future funding sources (internal, loan, angel, venture capital, etc.).
g) **Transition and Commercialization Risks.** Describe the major technology, market and team risks associated with achieving successful transition of the DARPA funded technology. DARPA is not afraid to take risks but we want to ensure that our awardees clearly understand the risks in front of them. What are the key risks in bringing your innovation to market? What actions do you plan to undertake to mitigate these risks?
h) **Expertise/Qualifications of Team/Company Readiness.** Describe the expertise and qualifications of your management, marketing/business development and technical team that will support the transition of the technology from the prototype to the commercial market and into Government operational environments. Has this team previously taken similar products/services to market? If the present team does not have this needed expertise, how do you intend to obtain it? What is the financial history and health of your company (e.g., availability of cash, profitability, revenue growth, etc.)?
i) **Anticipated Transition and Commercialization Results.** Include a schedule showing the anticipated quantitative transition and commercialization results from the Phase II project at one year after the start of Phase II, at the completion of Phase II, and after the completion of Phase II (i.e., amount of additional investment, sales revenue, etc.). After

Phase II award, the company is required to report actual sales and investment data in its Company Commercialization Report at least annually.

12. **Data Rights Assertions**
See Direct to Phase II Template – Volume 2: Technical Volume at https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics, for details on data rights assertions.

Advocacy Letters (OPTIONAL)* Feedback received from potential Commercial and/or DoD customers and other end-users regarding their interest in the technology to support their capability gaps. Advocacy letters that are faxed or e-mailed separately will NOT be accepted.

Letters of Intent/Commitment (OPTIONAL)* Relationships established, feedback received, support and commitment for the technology with one or more of the following: Commercial customer, DoD PM/PEO, a Defense Prime, or vendor/supplier to the Primes and/or other vendors/suppliers identified as having a potential role in the integration of the technology into fielded systems/products or those under development. Letters of Intent/Commitment that are faxed or e-mailed separately will NOT be accepted.

*Advocacy Letters and Letters of Intent/Commitment are optional and should ONLY be submitted to substantiate any transition or commercialization claims made in the commercialization strategy. Please DO NOT submit these letters just for the sake of including them in your proposal. These letters DO NOT count against any page limit.

In accordance with section 3-209 of DOD 5500.7-R, Joint Ethics Regulation, letters from Government personnel will NOT be considered during the evaluation process.

~~d. Format of the Technical Volume (Volume 2) – White Paper & Slide Deck~~

1. ~~The Technical Volume must include two parts, PART ONE: white paper and PART TWO: slide deck, combined as a single Portable Document Format (PDF) for upload to DSIP.~~

2. ~~Type of file: The Technical Volume must be a single PDF file, including graphics. Perform a virus check before uploading the Technical Volume file. If a virus is detected, it may cause rejection of the proposal. Do not lock or encrypt the uploaded file. Do not include or embed active graphics such as videos, moving pictures, or other similar media in the document.~~

3. ~~Length: The length of each part of the technical volume (white paper and slide deck) will be specified by the corresponding topic. The Government will not consider pages in excess of the page count limitations.~~

4. ~~Layout: Number all pages of your proposal consecutively. Font size should not be smaller than 10-point on standard 8-1/2" x 11" paper with one-inch margins. The header on each page of the Technical Volume should contain your company name, topic number, and proposal number assigned by DSIP when the Cover Sheet was created. The header may be included in the one-inch margin.~~

~~e. Content of the Technical Volume (Volume 2) – White Paper & Slide Deck~~

~~White Paper (NTE 20 pages). Provide the following information:~~
~~Goals and Impact: Clearly describe what is being proposed and what difference it will make (qualitatively and quantitatively), including a brief discussion on how this directly relates to the topic.~~

1. ~~Phase I Feasibility: This topic is accepting Direct to Phase II proposals ONLY. To be eligible, proposers must demonstrate that the documented feasibility work as required in the topic has been achieved outside of the SBIR program.~~

2. ~~Technical Plan: Outline and address all technical areas and challenges inherent in the approach and possible solutions for overcoming potential problems. Provide specific objectives, metrics, and milestones at intermediate stages to demonstrate a plan for accomplishment of the project objectives. Propose additional appropriate qualitative and quantitative metrics specific to the approach, as needed. Intermediary milestones should occur at no greater than 1-month increments.~~

3. ~~Management and Capabilities: Designate key personnel who will be involved in the Phase II effort. Provide a summary of expertise of the team, including subcontractors and key personnel. Describe the organizational experience in this technology area, previous work not directly related to the proposed effort, but similar, existing intellectual property required to complete the project, and any specialized facilities to be used as part of the project. List Government-furnished materials or data assumed to be available. Describe any specialized facilities to be used as part of the project, the extent of access to these facilities, and any biological containment, biosafety, and certification requirements.~~

4. ~~Transition and Commercialization Plan:~~
   a) ~~Describe the commercial product or DoD system to be developed.~~
   b) ~~Discuss the potential end users – DoD, Federal, and/or private sector customers. Discuss your business model for this technology (i.e., how to you anticipate generating revenue with this technology?). Who are you selling to directly or indirectly, a supplier, an integrator, or an end user?~~
   c) ~~Describe your company's funding history. Discuss how much additional funding above this proposed effort (include additional required technology development, staffing requirements, infrastructure requirements, IP strategy costs, etc.) that will be required to bring this technology to market and how you anticipate going about getting that funding (e.g., Govt S&T contracts, investment).~~
   d) ~~Describe the timeline to maturity for sales or transition to an end user. Describe your IP strategy.~~
   e) ~~Describe the technology, market, team and business risks associated with this proposed effort and your plan to mitigate these risks.~~

~~Slide Deck (not to exceed 15 slides). Provide the following information (convert the completed deck to a PDF and attach it to the white paper):~~

1. ~~What are you trying to do and how does this directly relate to the topic?~~

2. ~~Technology and commercial product: Specifically, what are you proposing to produce – software, system, application? Be specific on what your proposed technology development is targeting as an end state.~~

3. ~~How is the technology approached today? Who is doing the research, development and delivering products/services? What are the current limitations in the technology and commercial marketplaces?~~

4. ~~Technical and commercial value proposition: How have you substantiated the feasibility of your approach? What is innovative in your approach and how does it compare to the state-of-the-art? Why do you think it will be successful both from a technical and commercial perspective? If you are successful, what difference will it make? Discuss your proposed business model – how do you expect to generate revenue from your technology?~~

5. ~~Technical and commercial risks: What are the key technical and commercial challenges and how do you plan to address/overcome these?~~

6. ~~Technical and commercial market analysis: Who will care and what will the impact be if you are successful? What/who are the markets/industries/integrators/stakeholders that would/should care?~~

7. ~~Cost, schedule and milestones: Provide a summary of your cost volume. Provide a summary of your schedule and milestones. How much will your proposed effort cost in total? How long will it take? What are your technical milestones for achieving the proposed efforts? What are your transition and commercialization plan milestones? Discuss how much funding will be required to bring your proposed technology to market and execute your proposed transition and commercialization plan. Include any funding raised to date and expected plans for raising any additional required funding (Government contracting revenue, product sales, internal R&D investment, loan, angel or Venture Capital investment, etc.). Describe timeline to maturity for operational use or commercial sales.~~

8. ~~Management: Overview of team, facilities and qualifications.~~

9. ~~Technical summary quad chart: Use template provided at https://www.darpa.mil/work-with-us/for-small-businesses/participate-sbir-sttr-program.~~

10. ~~Commercialization summary quad chart: Use the DARPA Transition and Commercialization Strategy Plan (TCSP) template, located at https://www.darpa.mil/work-with-us/for-small-businesses/commercialization-continued.~~

~~NOTE: All letters of recommendation, CVs, and Data Rights Assertions (see Direct to Phase II Template – Volume 2: Technical Volume at https://www.darpa.mil/work-with-us/for-small-businesses/participate-sbir-sttr-program under SBIR/STTR BAA Forms & Templates for details on data rights assertions) can be loaded in Volume 5: Supporting Documents.~~

f. Format of Cost Volume (Volume 3)

Proposers are required to use the Direct to Phase II – Volume 3: Cost Proposal Template (Excel Spreadsheet) provided at https://www.darpa.mil/work-with-us/communities/small-business/fy25-topics, The Cost Volume (and supporting documentation) DOES NOT count toward the page limit of the Technical Volume.
Subcontractors should use this document for unsanitized cost proposals and send them to SBIR_BAA@darpa.mil.

g. Content of the Cost Volume (Volume 3)

Some items in the Cost Breakdown Guidance below may not apply to the proposed project. If such is the case, there is no need to provide information on every item.

ALL proposed costs should be accompanied by documentation to substantiate how the cost was derived. For example, if contractors:

- Propose direct labor costs, contractors could provide current paystubs for proposed employees, or a rate agreement with DCMA, etc.
- Propose consultant costs, contractors could provide historical invoices, current contract with consultant, etc.
- Propose to purchase materials or equipment; you could provide historical invoices, current quotes, market research for those items, etc.

The above list is purely for informational purposes and does not limit the proposer from proposing other costs. Again, however, all costs must be accompanied by substantiating documentation.

Proposers do not necessarily have to propose the cheapest item or supplier, but you should explain your decision to choose one item or supplier over another. It is important to provide enough information to allow contracting personnel to understand how the proposer plans to use the requested funds. If selected for award, failure to include the documentation with your proposal will delay contract negotiation, and the proposer will be asked to submit the necessary documentation to the Contracting Officer to substantiate costs (e.g., cost estimates for equipment, materials, and consultants or subcontractors). It is important to respond as quickly as possible to the Contracting Officer's request for documentation.

Cost Breakdown Guidance:

- List all key personnel by name as well as by number of hours dedicated to the project as direct labor. Special tooling and test equipment and material cost may be included. The inclusion of equipment and material will be carefully reviewed relative to need and appropriateness for the work proposed. The purchase of special tooling and test equipment must, in the opinion of the Contracting Officer, be advantageous to the Government and should be related directly to the specific topic. These may include such items as innovative instrumentation and/or automatic test equipment. Title to property furnished by the Government or acquired with Government funds will be vested with DARPA; unless it is determined that transfer of title to the contractor would be more cost effective than recovery of the equipment by the DARPA.
- Cost sharing is permitted for proposals under this announcement; however, cost sharing is not required nor will it be an evaluation factor in the consideration of a proposal.
- All subcontractor costs and consultant costs must be detailed at the same level as prime contractor costs in regard to labor, travel, equipment, etc. All subcontractor costs must be substantiated with Subcontractor Pricing Considerations. Enter this information in the Explanatory Material section of the online cost proposal form. **NOTE: If proposing subcontractors, contractors must satisfy the requirement of FAR Part 15.404-3(b), Subcontract Pricing Considerations, stated below:**

  (b) The prime contractor or subcontractor shall-

  > *(1) Conduct appropriate cost or price analyses to establish the reasonableness of proposed subcontract prices;*
  > *(2) Include the results of these analyses in the price proposal*

  The Supporting Documents Volume (Volume 5) may be used for this documentation.
- If Subcontractors will be performing Fundamental Research under the effort please incorporate the following into proposal: 1) a separate SOW outlining the specific work that the proposer finds to qualify as Fundamental Research; OR 2) Within Prime contractor SOW identify which tasks are to be performed that are fundamental research.

For more information about cost proposals and accounting standards, see the DCAA publication titled "Audit Process Overview – Information for Contractors" available at http://www.dcaa.mil.

h. Company Commercialization Report (Volume 4)

The Company Commercialization Report (CCR) allows companies to report funding outcomes resulting from prior SBIR and STTR awards. The Company Commercialization Report (CCR) is required for Phase I and Direct to Phase II proposals. Please refer to the DoD SBIR Program BAA for full details on this requirement. Information contained in the CCR will not be considered by DARPA during proposal evaluations.

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k. Disclosures of Foreign Affiliations or Relationships to Foreign Countries (Volume 7)

In accordance with Section 4 of the SBIR and STTR Extension Act of 2022 and the SBA SBIR/STTR Policy Directive, the DoD will review all proposals submitted in response to this BAA to assess security risks presented by small business concerns seeking a Federally funded award. Small business concerns must complete the Disclosures of Foreign Affiliations or Relationships to Foreign Countries webform in Volume 7 of the DSIP proposal submission (NOTE: PDF uploads will no longer be accepted). Full proposal submissions cannot be certified and submitted by the Corporate Official until Volume 7 is fully completed and the webform is submitted.

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