Broad Agency Announcement (BAA)

Small Business Innovation Research (SBIR) and

Small Business Technology Transfer (STTR)

Small Business Programs Office

HR001120S0019

February 12, 2020

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PART I: OVERVIEW INFORMATION

- **Federal Agency Name** – Defense Advanced Research Projects Agency (DARPA), Small Business Programs Office (SBPO)
- **Funding Opportunity Title** – Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs
- **Announcement Type** – Initial Announcement
- **Funding Opportunity Number** – HR001120S0019
- **NAICS Code(s)**: 541713, 541714, 541715; Small Business Size: 500
- **Dates** (All times listed herein are Eastern Time.)
  - Posting Date: February 12, 2020
  - Closing Date: December 31, 2020, 11:59 PM
- **Concise description of the funding opportunity:** To provide game-changing capabilities to our warfighters, DARPA must have the tools to operate at the pace of innovation. In order to capitalize on small business innovation, DARPA has implemented a new approach to advertise SBIR and STTR funding opportunities on a "just-in-time" basis, outside of the three pre-determined announcements issued at the DoD level. SBIR and STTR Opportunities (SBOs) will be announced under this BAA. Only proposals submitted in response to an active corresponding SBO will be evaluated for funding.

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PART II: FULL TEXT OF ANNOUNCEMENT

1. Funding Opportunity Description

The objectives of the DoD SBIR/STTR Program include stimulating technological innovation, strengthening the role of small business in meeting DoD research and development needs, fostering and encouraging participation by minority and disadvantaged persons in technological innovation, and increasing the commercial application of DoD-supported research or research and development results. Technology focus areas include DoD's Key Science and Technology Areas (https://www.acq.osd.mil/osbp/sbir/docs/techareas.pdf) and USD(R&E)'s Technology Modernization Priorities (https://www.cto.mil/modernization-priorities).

The guidelines presented in this BAA incorporate and make use of the flexibility of the SBA SBIR/STTR Policy Directive to encourage proposals based on scientific and technical approaches most likely to yield results important to the DoD and the private sector. The SBIR/STTR Policy Directive is available at: https://www.sbir.gov/sites/default/files/SBIR-STTR_Policy_Directive_2019.pdf.

15 U.S.C. §638 (cc), as amended by NDAA FY2012, Sec. 5106, and further amended by NDAA FY2019, Sec. 854, PILOT TO ALLOW PHASE FLEXIBILITY, allows the Department of Defense to make an award to a small business concern under Phase II of the SBIR program with respect to a project, without regard to whether the small business concern was provided an award under Phase I of an SBIR program with respect to such project. DARPA is conducting a "Direct to Phase II" (DP2) implementation of this authority for this announcement, for eligible SBIR opportunities only.

1.1 DARPA's SBIR/STTR Approach

DARPA's mission is to make strategic, early investments in science and technology that will have long-term positive impact 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 understanding 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 STTR programs. Small businesses are critical for developing technology to support national security. SBIR and STTR are the premier set-aside programs for small business participation in Federal research and development funding, yet the requirements for managing these programs have not changed significantly in decades. These outdated requirements are not keeping pace with today's rapidly changing technologies and commercial markets. To provide game-changing capabilities to our warfighters, DARPA must have the tools to operate at the pace of innovation.

To enable this approach, the Small Business Programs Office (SBPO) will issue SBIR/STTR Opportunities (SBOs). These SBOs will 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 may be found at: http://www.darpa.mil/about-us/offices.

The SBIR and STTR Programs have three phases. Phase I is to determine, to the extent possible, the scientific, technical, and commercial merit and feasibility of ideas submitted under the programs. Proposals should concentrate on research or research and development (R/R&D) which will significantly contribute to proving the scientific and technical feasibility, and commercialization potential of the proposed effort, the successful completion of which is a prerequisite for further DoD support in Phase II, unless an exception is authorized under the Direct to Phase II Program. Proposers are encouraged to consider whether the R/R&D being proposed to DoD Components also has private sector potential, either for the proposed application or as a base for other applications.

Phase II/DP2awards will be made to firms on the basis of results of their Phase I effort or comparable feasibility documentation, and the scientific merit, technical merit, and commercialization potential of the Phase II proposal. Phase II is the principal R/R&D effort and is expected to produce a well-defined deliverable prototype. A prototype is defined as a model of something to be further developed, which includes designs, protocols, questionnaires, software, and devices. A Phase II contractor may receive up to one additional, sequential Phase II award for continued work on the project.

Under Phase III, the Proposer is required to obtain funding from either the private sector, a non-SBIR/STTR Government source, or both, to develop the prototype into a viable product or non-R&D service for sale in military or private sector markets. Phase III refers to work that derives from, extends, or completes an effort made under prior SBIR/STTR funding agreements, but is funded by sources other than the SBIR/STTR Programs, which can include both private sector funding and non-SBIR/STTR government contract funding. Phase III work is typically oriented towards commercialization of SBIR/STTR funded research or technology.

1.2 SBIR and STTR Opportunities (SBOs)

SBIR and STTR Opportunities (SBOs) will be announced under this BAA, HR001120S0019. These SBOs will solicit proposals and will be open for at least 45 days from publication at https://beta.sam.gov. SBOs will describe projects addressing one or two phases as described below. During these periods of performance, very high-risk, high-reward topics will be investigated with the goal of determining feasibility and clarifying whether the area is ready for increased investment. The ultimate goal of each SBO is to invest in research that leads to prototype development that may result in new game-changing technologies for U.S. national security. Proposals submitted in response to SBOs will be evaluated and selected in accordance with Section 6 of this announcement.

Each SBO will (1) identify specific details regarding the research topic of interest, and (2) provide proposal content and submission instructions in addition to those outlined in this BAA, including the due date for proposal submissions. Proposals must be submitted in response to an SBO. **Only proposals submitted in response to an active corresponding SBO will be evaluated.**

Each SBO will identify the project phases (Phase I Feasibility Study/Phase II Proof of Concept/Direct to Phase II), periods of performance, specific technical objectives to be achieved, task descriptions, milestone payment schedule, and deliverables. Generally, the period of performance for the Phase I effort will not exceed 12 months, and the period of performance for the Phase II or DP2 effort will not exceed 36 months. Combined Phase I base and Phase II option efforts for any SBO are not anticipated to exceed 48 months.

For any proposal selected for award, the Government reserves the right to award a separate Phase I, a separate Phase II, DP2, or a combined Phase I and II effort. In cases in which combined Phase I and II is awarded, the Government may award Phase II as an option, depending on the outcome of the Phase I effort and funding availability. Due to the potential for awarding follow-on Phase II efforts, DARPA is requesting a proposal validity period of 365 days.

Note: Not all SBOs are eligible for a DP2 award. Proposers should read the SBO requirements carefully, as each opportunity may accept Phase I proposals only, both Phase I and DP2 proposals, or DP2 proposals only.

All firms that are awarded Phase I awards originating from this BAA will be eligible to participate in Phase II competitions and potential Phase III (non-SBIR/STTR funded) awards.

Currently there are no follow-on acquisitions planned once a performer has completed Phase I and Phase II or the DP2 effort. However, the goal of the SBIR and STTR programs is to fund research that leads to prototype development. If after Phase II/DP2, a performer has successfully accomplished a proof of concept, and a deliverable prototype is within reach or a promising initial prototype has been developed, the Government may elect to modify the award to fund additional tasks to pursue further prototype development, fabrication and delivery.

2. Award Information

2.1 General Award Information

Multiple awards are anticipated. DARPA may award FAR-based government contracts (Firm-Fixed Price or Cost-Plus Reimbursement) or Other Transactions for Prototypes agreement (under the authority of 10 U.S.C. § 2371b) as determined by the Contracting Officer. The amount of resources made available under each SBO 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 announcement 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) of the performers based on available funding and 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 agreement on award terms, conditions, and price within a reasonable time, and the proposer fails to provide requested additional information within three business days.

In all cases, the Government Contracting Officer shall have sole discretion to select award instrument type, regardless of 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 section 2.2 on Fundamental Research.

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. § 2371b, 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:

The flexibility of the OT award instrument is beneficial to the program because the Performer will be able to apply its 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 sample OT provided as an attachment to this announcement for additional information. Specific milestones will be based upon the research objectives detailed in the SBO.

Please see Appendix C and https://aaf.dau.mil/ot-guide/ for more information on OTs.

2.2 Fundamental Research

It is DoD policy that the publication of products of fundamental research will remain unrestricted to the maximum extent possible. National Security Decision Directive (NSDD) 189 defines fundamental research as follows:

> "'Fundamental research' means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons."

As of the date of publication of this BAA, the Government expects that program goals as described herein may be met by proposers intending to perform fundamental research and proposers not intending to perform fundamental research or the proposed research may present a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense. Based on the nature of the performer and the nature of the work, the Government anticipates that some awards will include restrictions on the resultant research that will require the awardee to seek DARPA permission before publishing any information or results relative to the program.

Proposers should indicate in their proposal whether they believe the scope of the research included in their proposal is fundamental or not. While proposers should clearly explain the intended results of their research, the Government shall have sole discretion to select award instrument type and to negotiate all instrument terms and conditions with selectees. Appropriate clauses will be included in resultant awards for non-fundamental research to prescribe publication requirements and other restrictions, as appropriate. This clause can be found at http://www.darpa.mil/work-with-us/additional-baa.

For certain research projects, it may be possible that although the research being performed by the prime contractor is restricted research, a subcontractor may be conducting contracted fundamental research. In those cases, it is the prime contractor's responsibility to explain in their proposal why its subcontractor's effort is contracted fundamental research.

2.3 Export Control

The International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, will apply to all projects with military or dual-use applications that develop beyond fundamental research, which is basic and applied research ordinarily published and shared broadly within the scientific community. SBOs will identify when ITAR restrictions are applicable. More information is available at https://www.pmddtc.state.gov/ddtc_public?id=ddtc_public_portal_itar_landing.

2.4 Discretionary Technical and Business Assistance (TABA)

DARPA is not offering TABA funding pending further SBA guidance and establishment of a limit on the amount of technical and business assistance services that may be received or purchased by a small business concern that has received multiple Phase II SBIR or STTR awards for a fiscal year.

2.5 Transition and Commercialization Support Program (TCSP)

DARPA will provide services to Phase II or DP2 awardees upon contract execution through the Transition and Commercialization Support Program (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 http://www.darpa.mil/work-with-us/for-small-businesses/commercialization-continued for more information on DARPA TCSP.

2.6 DARPA Embedded Entrepreneur Initiative (EEI)

The DARPA Embedded Entrepreneur Initiative (EEI) for SBIR Phase II performers aims to increase the participant's ability to transition technology. The DARPA EEI is an opportunity for SBIR Phase II awardees to access resources and support for the purpose of helping a concept toward viable first application. In some cases, the primary market is the defense sector, while in others the most viable path to providing technology to the DoD requires a parallel commercial market. The ultimate objective is to provide a new or greatly improved capability.

DARPA EEI participants will have access to a DARPA commercialization advisor, mentors from industry, as well as connections to DARPA's extensive network. Participants may receive additional funding up to $250,000, to bring an entrepreneur-in-residence onto their team and execute a series of commercial development milestones. The determination for participation in EEI will be made independently following selection for an SBIR award. Selection for award does not imply selection for participation in EEI.

Please see the attachment to this BAA titled "Suggested Milestones for Embedded Entrepreneur Initiative Participants" for suggested EEI milestones. If the proposal varies from these suggested milestones, please explain why alternative proposed milestones are more suitable/better matched for advancing commercial readiness. Milestones can be spread across one year or two years, whatever is deemed most valuable by the proposing company.

Existing Phase II performers will be considered for participation on a case-by-case basis, and should express interest in this opportunity to their Program Manager.

To be considered for participation in the DARPA EEI, Phase II proposers MUST:

1. Submit a compelling Commercialization Strategy (see detailed instructions in Appendix B, section B.3.b(9)), which will be used to determine participation in the DARPA EEI. The determination will be made independently following selection for SBIR award.

2. Include in their Phase II proposal a separately priced option with a set of milestones, aligned with the suggested milestones in the attachment to this BAA, describing plans to build and refine a Go-to Market Strategy. The DARPA EEI option will be exercised at the discretion of the Government and subject to the availability of funding.

3. Describe the type of commercialization support you would find most helpful and why. DARPA EEI funding requests should be consistent with the proposed work scope and timeline, but are anticipated to be in the range of $250,000 per awardee over the duration of the award. It is expected that participation in the DARPA EEI will financially support one entrepreneur-in-residence, or business development lead. This employee should have the skills, experience, and availability to carry out the development of a go to market strategy. This experience should include business experience within the target industries of interest, experience commercializing technology, and the ability to effectively interact with technical and non-technical stakeholders. The entrepreneur-in-residence or business development lead does not need to be identified prior to proposal submission but must be brought on board early in Phase II.

3. Eligibility Information

3.1 Eligible Applicants

a. The eligibility requirements for the SBIR/STTR programs are unique and do not correspond to those of other small business programs. Proposers must qualify as a small business concern (SBC) and meet eligibility requirements for Small Business Ownership and Control at time of award and certify to this on the proposal Cover Sheet (see 13 CFR § 121.702 and as defined below).

   An SBC must satisfy the following conditions on the date of award:

   i. Is organized for profit, with a place of business located in the United States, which operates primarily within the United States or which makes a significant contribution to the United States economy through payment of taxes or use of American products, materials or labor;

   ii. Is in the legal form of an individual proprietorship, partnership, limited liability company, corporation, joint venture, association, trust or cooperative, except that if the concern is a joint venture, each entity to the venture must meet the requirements set forth in paragraph (iii) below;

   iii. Is more than 50% directly owned and controlled by one or more individuals (who are citizens or permanent resident aliens of the United States), other small business concerns (each of which is more than 50% directly owned and controlled by individuals who are citizens or permanent resident aliens of the United States), or any combination of these; and

iv. Has, including its affiliates, not more than 500 employees. (For explanation of affiliate, see www.sba.gov/size.)

Small businesses that are owned in majority part by multiple venture capital operating companies (VCOCs), hedge funds, or private equity funds are ineligible to submit applications or receive awards for opportunities under this BAA.

Joint ventures and limited partnerships are permitted, provided that the entity created qualifies as a small business in accordance with the Small Business Act, 13 U.S.C. § 121.701.

b. For SBIR proposals, a minimum of two-thirds of the research and/or analytical work in Phase I must be carried out by the proposing firm. For Phase II/DP2, a minimum of one-half (50%) of the research and/or analytical work must be performed by the proposing firm. The percentage of work is measured by both direct and indirect costs. The primary employment of the principal investigator (PI) must be with the small business firm at the time of the award and during the conduct of the proposed effort. Primary employment means that more than one-half of the PI's time is spent with the small business. Primary employment with a small business concern precludes full-time employment at another organization.

c. For STTR proposals, a minimum of 40% of the research and/or analytical work in Phase I must be conducted by the small business concern and a minimum of 30% of the effort performed by the single research institution, as defined below. The percentage of work is usually measured by both direct and indirect costs. For both Phase I and II, the PI may be primarily employed with the small business firm OR the research institution. At the time of award of a Phase I or Phase II contract, the small business concern must have at least one employee in a management position whose primary employment is with the small business and who is not also employed by the research institution. Primary employment means that more than one half (50%) of the employee's time is spent with the small business. Primary employment with a small business concern precludes full-time employment at another organization.

i. A research institution is defined as any organization located in the United States that is:
   1) A university.
   2) A nonprofit institution as defined in Section 4(5) of the Stevenson-Wydler Technology Innovation Act of 1980.
   3) A contractor-operated federally funded research and development center, as identified by the National Science Foundation in accordance with the government-wide Federal Acquisition Regulation issued in accordance with Section 35(c)(1) of the Office of Federal Procurement Policy Act. A list of eligible FFRDCs is available at: https://www.nsf.gov/statistics/ffrdclist/. **A waiver is no longer required for the use of federal laboratories and FFRDCs; however, proposers must certify their use of such facilities on the Cover Sheet of the proposal.**

d. For both SBIR and STTR, Phase I and Phase II/DP2 proposals, all research or research and development work must be performed by the small business concern and its subcontractors in the United States.

e. Proposers with prior SBIR/STTR awards must meet two benchmark requirements for Progress towards Commercialization as determined by the Small Business Administration (SBA) on June 1 each year.

   i. For all proposers with greater than 20 Phase I awards over the past five fiscal years excluding the most recent year, the ratio of Phase II/DP2 awards to Phase I awards must be at least 0.25.

   ii. For all proposers with greater than 15 Phase II/DP2 awards over the last ten fiscal years excluding the last two years, the proposer must have received, to date, an average of at least $100,000 of sales and/or investments per Phase II/Direct to Phase II award received, or have received a number of patents resulting from the SBIR work equal to or greater than 15% of the number of Phase II/Direct to Phase II awards received during the period.

Consequence of failure to meet the benchmarks:

- SBA will identify and notify Agencies on June 1st of each year the list of companies which fail to meet minimum performance requirements. These companies will not be eligible to submit a proposal for a Phase I award for a period of one year from that date.
- Because this requirement only affects a company's eligibility for new Phase I awards, a company that fails to meet minimum performance requirements may continue working on its current ongoing SBIR/STTR awards and may apply for and receive new Phase II and Phase III awards.
- To provide companies with advance warning, SBA notifies companies on April 1st if they are failing the benchmarks. If a company believes that the information used was not complete or accurate, it may provide feedback through the SBA Company Registry at www.sbir.gov.
- In addition, SBA has posted a Guide to SBIR/STTR Program Eligibility to help small businesses understand program eligibility requirements, determine if they will be eligible at the time of award, and accurately complete necessary certifications.
- The benchmark information on the companies will not be available to the public.

3.2 Foreign Nationals

Proposers must report any and all individuals expected to be involved on this project that are considered a foreign national as defined below. Proposers may be asked to provide additional information during negotiations in order to verify the foreign citizen's eligibility to participate in the SBIR/STTR award. The Government may withdraw from negotiations at any time for any

reason to include matters of national security (foreign persons, foreign influence or ownership, inability to clear the firm or personnel for security clearances, or other related issues).

Foreign Nationals (also known as Foreign Persons) as defined by 22 CFR 120.16 means any natural person who is not a lawful permanent resident as defined by 8 U.S.C. § 1101(a)(20) or who is not a protected individual as defined by 8 U.S.C. § 1324b(a)(3). It also means any foreign corporation, business association, partnership, trust, society or any other entity or group that is not incorporated or organized to do business in the United States, as well as international organizations, foreign governments and any agency or subdivision of foreign governments (e.g., diplomatic missions).

"Lawfully admitted for permanent residence" means the status of having been lawfully accorded the privilege of residing permanently in the United States as an immigrant in accordance with the immigration laws, such status not having changed.

"Protected individual'' means an individual who (A) is a citizen or national of the United States, or (B) is an alien who is lawfully admitted for permanent residence, is granted the status of an alien lawfully admitted for temporary residence under 8 U.S.C. § 1160(a) or 8 U.S.C. § 1255a(a)(1), is admitted as a refugee under 8 U.S.C. § 1157, or is granted asylum under Section 8 U.S.C. § 1158; but does not include (i) an alien who fails to apply for naturalization within six months of the date the alien first becomes eligible (by virtue of period of lawful permanent residence) to apply for naturalization or, if later, within six months after November 6, 1986, and (ii) an alien who has applied on a timely basis, but has not been naturalized as a citizen within 2 years after the date of the application, unless the alien can establish that the alien is actively pursuing naturalization, except that time consumed in the Service's processing the application shall not be counted toward the 2-year period.

3.3 Organizational Conflicts of Interest

<u>FAR 9.5 Requirements</u>
In accordance with FAR 9.5, proposers are required to identify and disclose all facts relevant to potential OCIs involving the proposer's organization and any proposed team member (subawardee, consultant). Under this Section, the proposer is responsible for providing this disclosure with each proposal submitted to the BAA. The disclosure must include the proposer's, and as applicable, proposed team member's OCI mitigation plan. The OCI mitigation plan must include a description of the actions the proposer has taken, or intends to take, to prevent the existence of conflicting roles that might bias the proposer's judgment and to prevent the proposer from having unfair competitive advantage. The OCI mitigation plan will specifically discuss the disclosed OCI in the context of each of the OCI limitations outlined in FAR 9.505-1 through FAR 9.505-4.

<u>Agency Supplemental OCI Policy</u>
In addition, DARPA has a supplemental OCI policy that prohibits contractors/performers from concurrently providing Scientific Engineering Technical Assistance (SETA), Advisory and Assistance Services (A&AS) or similar support services and being a technical performer. Therefore, as part of the FAR 9.5 disclosure requirement above, a proposer must affirm whether

the proposer or any proposed team member (subawardee, consultant) is providing SETA, A&AS, or similar support to any DARPA office(s) under: (a) a current award or subaward; or (b) a past award or subaward that ended within one calendar year prior to the proposal's submission date.

If SETA, A&AS, or similar support is being or was provided to any DARPA office(s), the proposal must include:

- The name of the DARPA office receiving the support;
- The prime contract number;
- Identification of proposed team member (subawardee, consultant) providing the support; and
- An OCI mitigation plan in accordance with FAR 9.5.

Government Procedures

In accordance with FAR 9.503, 9.504 and 9.506, the Government will evaluate OCI mitigation plans to avoid, neutralize or mitigate potential OCI issues before award and to determine whether it is in the Government's interest to grant a waiver. The Government will only evaluate OCI mitigation plans for proposals that are determined selectable under the BAA evaluation criteria and funding availability.

The Government may require proposers to provide additional information to assist the Government in evaluating the proposer's OCI mitigation plan.

If the Government determines that a proposer failed to fully disclose an OCI; or failed to provide the affirmation of DARPA support as described above; or failed to reasonably provide additional information requested by the Government to assist in evaluating the proposer's OCI mitigation plan, the Government may reject the proposal and withdraw it from consideration for award.

4. Application and Submission Information

4.1 Proposal Preparation Instructions

Each SBO will (1) identify specific details regarding the research topic of interest, and (2) provide proposal content and submission instructions in addition to those outlined in this BAA, including the due date for proposal submissions. Proposals must only be submitted in response to an SBO. **Proposals submitted in response to this BAA without an active, corresponding SBO will not be evaluated.**

Classified proposals are not accepted under the DoD SBIR/STTR Program. If classified work becomes required during Phase II, the proposing firm must have a facility clearance in order to perform the Phase II work. For more information on facility and personnel clearance procedures and requirements, please visit the Defense Counterintelligence and Security Agency website at: https://www.dcsa.mil/mc/ctp/fc/.

Each SBO will identify the project phases (Phase I Feasibility Study/Phase II Proof of Concept/Direct to Phase II), periods of performance, specific technical objectives to be achieved, task descriptions, milestone payment schedule, and deliverables. Generally, the period of

performance for the Phase I base effort will not exceed 12 months, and the period of performance for the Phase II or Direct to Phase II effort will not exceed 36 months. Combined Phase I and Phase II efforts, inclusive of option periods, for any SBO are not anticipated to exceed 48 months.

Each SBO will indicate the type of proposal accepted – Phase I, DP2, or both. **For Phase I Proposal Instructions, see Appendix A. For DP2 Proposal Instructions, see Appendix B.**

4.2 DP2 Requirements

Proposers interested in submitting a DP2 proposal in response to an eligible SBO must 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 describes 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. Work submitted within the feasibility documentation must have been substantially performed by the proposer and/or the PI.

DARPA will not evaluate the proposer's related Phase II proposal if it determines that the proposer has failed to demonstrate that technical merit and feasibility has been established or the proposer has failed to demonstrate that work submitted in the feasibility documentation was substantially performed by the proposer and/or the PI.

Feasibility documentation cannot be based upon any prior or ongoing federally funded SBIR or STTR work and DP2 proposals MUST NOT logically extend from any prior or ongoing federally funded SBIR or STTR work.

4.3 Electronic Submission

Proposers are REQUIRED to submit UNCLASSIFIED proposals via the Defense SBIR/STTR Innovation Portal (DSIP) at https://dodsbirsttr.mil. Firms submitting through this site for the first time will be asked to register. It is recommended that firms register as soon as possible upon identification of a proposal opportunity to avoid delays in the proposal submission process. Submission deadlines are strictly enforced. Proposals submitted by any other means will be disregarded.

Technical support for 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 HR001120S0019@darpa.mil.

4.4 Submission Deadlines

Full proposal packages (Proposal Cover Sheet, Technical Volume, Price/Cost Volume inclusive of supporting documentation, Company Commercialization Report, and supporting documentation as required) must be submitted via the Defense SBIR/STTR Innovation Portal

(DSIP) per the instructions outlined herein no later than the due date and time listed in the SBO to which the proposal is submitted.

It is the proposing firm's responsibility to verify that the Technical Volume does not exceed the page limit after upload to DSIP, that all proposal volumes are complete and that the proposal package is certified. The proposer may add/modify proposal volumes or the Proposal Cover Sheet on DSIP until the due date and time listed in the SBO.

Proposals and proposal modifications, unless requested by the Contracts/Agreements Officer, received after the due date set forth in the SBO will be considered late and will not be evaluated. Proposers are warned that submission deadlines outlined in the SBO to which they are applying will be strictly enforced.

4.5 Communication

DARPA intends to use electronic mail for all correspondence regarding this announcement. Administrative, proposal preparation, and award questions should be emailed to HR001120S0019@darpa.mil. All questions must be in English and must include the name, email address, and the telephone number of a point of contact.

DARPA will post a consolidated Frequently Asked Questions (FAQ) document. To access the posting go to: http://www.darpa.mil/work-with-us/opportunities. Under the HR001120S0019 summary will be a link to the FAQ. The document will be updated on an ongoing basis until the announcement closing date stated in Part I.

Each SBO will include instructions for submitting questions related to the technical aspect of the research objectives. DARPA will attempt to answer questions in a timely manner; however, questions submitted within 7 days of the proposal due date listed in the SBO may not be answered.

4.6 Marking Proprietary Proposal Information

Proposers that include data in their proposals that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall:

(1) Mark the first page of each Volume of the proposal submission with the following legend:

"This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed-in whole or in part-for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this proposer as a result of-or in connection with-the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in pages [insert numbers or other identification of sheets]"; and

(2) Mark each sheet of data it wishes to restrict with the following legend:

"Use or disclosure of data contained on this page is subject to the restriction on the first page of this volume."

The DoD assumes no liability for disclosure or use of unmarked data and may use or disclose such data for any purpose.

Restrictive notices notwithstanding, proposals and final reports submitted through the DoD Submission website may be handled, for administrative purposes only, by support contractors. All support contractors are bound by appropriate non-disclosure agreements.

4.7 Human Subjects Research/Animal Use

Proposers that anticipate involving human subjects or animals in the proposed research must comply with the approval procedures detailed at http://www.darpa.mil/work-with-us/humanresearch to include providing the information specified therein as required for proposal submission.

Human Subject Research
All research involving human subjects shall be conducted in accordance with 32 C.F.R. § 219 "The Common Rule," 10 U.S.C. § 980 "Limitation on Use of Humans as Experimental Subjects," and DoDD 3216.02 "Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research," as well as other applicable federal and state law and regulations, and DoD component guidance. Proposers must be cognizant of and abide by the additional restrictions and limitations imposed on the DoD regarding research involving human subjects, specifically as they regard vulnerable populations (DoDD 3216.02), recruitment of military research subjects (DoDD 3216.02), and informed consent and surrogate consent (10 U.S.C. § 980) and chemical and biological agent research (DoDD 3216.02). Food and Drug Administration regulation and policies may also apply.

"Human use" protocols apply to all research that meets any of the following criteria:

a. Any research involving an intervention or an interaction with a living person that would not be occurring or would be occurring in some other fashion but for this research.
b. Any research involving identifiable private information. This may include data/information/specimens collected originally from living individuals (broadcast video, web-use logs, tissue, blood, medical or personnel records, health data repositories, etc.) in which the identity of the subject is known, or the identity may be readily ascertained by the investigator or associated with the data/information/specimens.

See DoDD 3216.02 for definitions of these terms and more information about the applicability of DoDI 3216.02 to research involving human subjects.

Animal Use

All activities involving animal subjects shall be conducted in accordance with DoDI 3216.01 "Use of Animals in DoD Programs," 9 C.F.R. parts 1-4 "Animal Welfare Regulations," National Academy of Sciences Publication "Guide for the Care & Use of Laboratory Animals," as amended, and the Department of Agriculture rules implementing the Animal Welfare Act (7 U.S.C. §§ 2131-2159), as well as other applicable federal and state law and regulation and DoD instructions.

"Animal use" protocols apply to all activities that meet any of the following criteria:

a. Any research, development, test, evaluation or training, (including experimentation) involving an animal or animals.
b. An animal is defined as any living or dead, vertebrate organism (non-human) that is being used or is intended for use in research, development, test, evaluation or training.
c. A vertebrate is a member of the subphylum Vertebrata (within the phylum Chordata), including birds and cold-blooded animals.

See DoDI 3216.01 for definitions of these terms and more information about the applicability of DoDI 3216.01 to work involving animals.

4.8 Research Involving Recombinant DNA Molecules

Recombinant DNA is defined as (i) molecules that are constructed outside living cells by joining natural or synthetic DNA segments to DNA molecules that can replicate in living cells or (ii) molecules that result from the replication of those described in (i) above. Any recipient performing research involving recombinant DNA molecules and/or organisms and viruses containing recombinant DNA molecules shall comply with the National Institutes of Health Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules, found at: https://osp.od.nih.gov/wp-content/uploads/2016/05/NIH_Guidelines.pdf.

5. Evaluation of Proposals

5.1 Evaluation Criteria for Award

Proposals will be evaluated based on the criteria outlined below in descending order of importance:

a. The soundness, technical merit, and innovation of the proposed approach and its incremental progress toward topic or subtopic solution.
b. The qualifications of the proposed principal/key investigators, supporting staff, and consultants. Qualifications include not only the ability to perform the research and development but also the ability to commercialize the results.
c. The potential for commercial (Government or private sector) application and the benefits expected to accrue from this commercialization.

Cost and/or price reasonableness and realism may also be considered to the extent appropriate.

Evaluators will base their conclusions only on information contained in the proposal. It cannot be assumed that evaluators are acquainted with the firm or key individuals or any referenced experiments. Relevant supporting data such as journal articles, literature, including Government publications, etc., should be contained or referenced in the proposal and will count toward the page limit.

5.2 Evaluation and Selection Process

It is the policy of DARPA to ensure equitable and comprehensive proposal evaluations based on the evaluation criteria listed above and to select the source (or sources) whose offer meets the Government's technical, policy, and programmatic goals.

All proposal evaluations will be based solely on the above evaluation criteria. 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 SBO 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, and, based on these identified strengths and weaknesses, make a determination of the proposal's overall selectability. 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 SBO.

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 BAA herein, subsequent SBOs issued, and availability of funding. Given the limited funding available for each SBO, not all proposals considered selectable will be necessarily selected for funding.

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

> Selectable: A selectable proposal is a proposal that has been evaluated by the Government against the evaluation criteria listed in the BAA and SBO, and the strengths of the overall proposal outweighs 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 proposal has been evaluated by the Government against the evaluation criteria listed in the BAA and SBO, and the strengths of the overall proposal do not outweigh its weaknesses.

5.3 Handling of Source Selection Information

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 non-disclosure requirements. No submissions 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/sbirsearch/award/all).

6. Award Administration Information

6.1 System Requirements

Proposers are required to authenticate into the DARPA SBIR/STTR Information Portal (SSIP), via the DARPA Extranet, to retrieve the selection decision notice and technical evaluation narrative, and to upload reports (for proposals that receive an award). Use of the SSIP is **MANDATORY**.

DARPA SBPO will automatically create an extranet account for new users and send the SSIP URL, authentication credentials, and login instructions with the selection decision notice email. DARPA extranet accounts will ONLY be created for the individual named as the Corporate Official on the Proposal Cover Sheet. Proposers may not request accounts for additional users at this time.

WARNING: The e-mail address of the Corporate Official from the Proposal Cover Sheet will be used to create a DARPA Extranet account. Updates to this e-mail address after proposal submission may cause significant delays to communication retrieval and contract negotiation (if selected).

6.2 Award Notices

The following notices will be provided as applicable:

- Notification of Proposal Receipt. Within 7 business days after the closing date of the SBO to which proposers are applying, the individual named as the Corporate Official on the Proposal Cover Sheet will receive a separate e-mail from sbir@darpa.mil acknowledging receipt for each proposal received. Please make note of the proposal number for your records.

- Request for clarification (if applicable)

- May occur at any time during the evaluation process
- Proposal changes are not permitted

- Request for open communications (if needed)
  - Proposers shall be advised of any deficiencies and/or major weaknesses in their proposals and given an opportunity to respond, to include offering proposal revisions

- Notification of Proposal Status. The selection decision notice will be available no later than 90 days after the closing date of the SBO to which proposers are applying. The individual named as the Corporate Official on the Proposal Cover Sheet will receive an email for each proposal submitted from sbir@darpa.mil with instructions for retrieving their official notification from the DARPA SBIR/STTR Information Portal (SSIP). Please read each notification carefully and note the proposal number referenced.

- Technical Evaluation Narrative. DARPA will provide a technical evaluation narrative to the proposer in accordance with the SBA Policy Directive, Appendix I, paragraph 4. The selection decision notice contains instructions for retrieving the technical evaluation narrative.

Protests regarding the selection decision should be submitted to:

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

6.3 Controlled Unclassified Information on Non-DoD Information Systems

All proposers and awardees will be subject to the DARPA requirements related to Controlled Unclassified Information on Non-DoD Information Systems as detailed at www.darpa.mil/work-with-us/additional-baa.

6.4 Registrations and Certifications

Proposing firms must be registered in the Defense SBIR/STTR Innovation Portal (DSIP) at https://dodsbirsttr.mil in order to prepare and submit proposals.

Before the DARPA Contracting Agents can award a contract, proposing firms must be registered in the System for Award Management (SAM). SAM replaced the Central Contractor Registration (CCR), Online Representations and Certifications Application (ORCA), and the Excluded Parties List System (EPLS). If you were previously registered in CCR, your information has been transferred to SAM. However, it is in the firm's interest to visit SAM and ensure that all of the firm's data is up to date from SAM and other databases to avoid delay in award. SAM allows firms interested in conducting business with the federal government to

provide basic information on business capabilities and financial information. To register, visit http://www.sam.gov/.

Follow instructions found on the SAM website on how to obtain a Commercial and Government Entry (CAGE) code and Data Universal Numbering System (DUNS) number. Once a CAGE code and DUNS number are obtained, update the firm's profile on the Defense SBIR/STTR Innovation Portal (DSIP) at https://dodsbirsttr.mil.

In addition to the standard federal and DoD procurement certifications, the SBA SBIR & STTR Policy Directives require the collection of certain information from firms at time of award and during the award life cycle. Each firm must provide this additional information at the time of the Phase I and Phase II award, prior to final payment on the Phase I award, prior to receiving 50% of the total award amount for a Phase II award, and prior to final payment on the Phase II award.

6.5 Reporting – Final Technical Reports (Phase I through Phase III)

a. Content: A final report is required for each project phase. In addition, monthly status and progress reports may be required. The reports must contain in detail the project objectives, work performed, results obtained, and estimates of technical feasibility. A completed SF 298, "Report Documentation Page," will be used as the first page of the report. (Refer to DTIC (Defense Technical Information Center) submission resources at http://www.dtic.mil/dtic/submit/guidance_on_submitting_docs_to_dtic.html.)

b. SF 298 Form "Report Documentation Page" Preparation:

(1) If desirable, language used by the company in its Phase II proposal to report Phase I progress may also be used in the Phase I final report.

(2) For each unclassified report, the company submitting the report should fill in Block 12 (Distribution/Availability Statement) of the SF 298, "Report Documentation Page," with the following statement: "Distribution authorized to U.S. Government only; Proprietary Information, (Date of Determination). Other requests for this document shall be referred to the Component SBIR Program Office." *Note: Data developed under a SBIR contract is subject to SBIR Data Rights which allow for protection under DFARS 252.227-7018 (see Section 11.5, Technical Data Rights). The sponsoring DoD activity, after reviewing the company's entry in Block 12, has final responsibility for assigning a distribution statement.*

For additional information on distribution statements see the following Defense Technical Information Center (DTIC) website: http://www.dtic.mil/dtic/pdf/distribution_statements_and_reasons.pdf

(3) Block 14 (Abstract) of the SF 298, "Report Documentation Page" must include as the first sentence, "Report developed under SBIR contract for topic [insert BAA SBO topic number. [Follow with the topic title, if possible.]" The abstract must identify the purpose of the work and briefly describe the work conducted, the findings or results and the potential applications of the effort. Since the abstract will be

published by the DoD, **it must not contain any proprietary or classified data and type "UU" in Block 17**.

(4) Block 15 (Subject Terms) of the SF 298 must include the term "SBIR Report".

c. Submission: In accordance with DoD Directive 3200.12 and DFARS clause 252.235-7011, a copy of the final report shall be submitted (electronically or on disc) to:

Defense Technical Information Center
ATTN: DTIC-OA (SBIR)
8725 John J Kingman Road, Suite 0944
Ft. Belvoir, VA 22060-6218

Delivery will normally be within 30 days after completion of the technical effort. Other requirements regarding submission of reports and/or other deliverables will be defined in the Contract Data Requirements List (CDRL), or other appropriate areas, of each contract.

Special instructions for the submission of CLASSIFIED reports will be defined in the delivery schedule of the contract.DO NOT E-MAIL Classified or controlled unclassified reports, or reports containing SBIR Data Rights protected under DFARS 252.227-7018.

6.6 Invention Reporting

SBIR/STTR awardees must report inventions within two months of the inventor's report to the awardee. The award document for each proposal selected for funding will contain a mandatory requirement for patent reports and notifications to be submitted electronically through i-Edison (https://public.era.nih.gov/iedison).

6.7 Technical Data Rights

Rights in technical data, including software, developed under the terms of any contract resulting from proposals submitted in response to this BAA generally remain with the contractor, except that the Government obtains a royalty-free license to use such technical data only for Government purposes during the period commencing with contract award and ending five years after completion of the project under which the data were generated. This data should be marked with the restrictive legend specified in DFARS 252.227-7018. Upon expiration of the five-year restrictive license, the Government has unlimited rights in the SBIR data. During the license period, the Government may not release or disclose SBIR data to any person other than its support services contractors except: (1) For evaluation purposes; (2) As expressly permitted by the contractor; or (3) A use, release, or disclosure that is necessary for emergency repair or overhaul of items operated by the Government. See DFARS clause 252.227-7018, "Rights in Noncommercial Technical Data and Computer Software – Small Business Innovation Research (SBIR) Program."

If a proposer plans to submit assertions in accordance with DFARS 252.227-7017, those assertions must be identified and assertion of use, release, or disclosure restriction MUST be

included with your proposal submission. The contract cannot be awarded until assertions have been approved.

Regardless of the final type of instrument for award (FAR-based contract or OTs for Prototypes agreement as determined by the Contracting Office or Agreements Officer), provide any assertions stated above.

6.8 Electronic Invoicing and Payments

Awardees will be required to submit invoices for payment electronically as indicated in the award instrument, typically using one of the two following systems:

- Wide Area Work Flow (WAWF) – The Contractor must have a designated electronic business point of contact in the System for Award Management (SAM) at https://www.acquisition.gov. WAWF registration and training available at https://wawf.eb.mil.
- IPP Disburser - Firms are enrolled into IPP once selected, an award is progress, and they are set-up/added in the system. The Contractor Government Business Point of Contact (as listed in SAM) will receive enrollment instructions via email from the Federal Reserve Bank of Boston (FRBB), no more than 3 – 5 business days of the contract award date.

6.9 Disclosure of Information and Compliance with Safeguarding Covered Defense Information Controls

The following provisions and clause apply to all solicitations and contracts; however, the definition of "controlled technical information" clearly exempts work considered fundamental research and therefore, even though included in the contract, will not apply if the work is fundamental research.

DFARS 252.204-7000, "Disclosure of Information"
DFARS 252.204-7008, "Compliance with Safeguarding Covered Defense Information Controls"
DFARS 252.204-7012, "Safeguarding Covered Defense Information and Cyber Incident Reporting"

The full text of the above solicitation provision and contract clauses can be found at http://www.darpa.mil/work-with-us/additional-baa#NPRPAC.

Compliance with the above requirements includes the mandate for proposers to implement the security requirements specified by National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations" (see https://doi.org/10.6028/NIST.SP.800-171r1) that are in effect at the time the BAA is issued.

For awards where the work is considered fundamental research, the contractor will not have to implement the aforementioned requirements and safeguards; however, should the nature of the work change during performance of the award, work not considered fundamental research will be subject to these requirements.

APPENDIX A: PHASE I PROPOSAL INSTRUCTIONS

A.1 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 (as required)
Volume 6: Fraud, Waste and Abuse Training (optional)

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 SBO to which they are responding.

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://beta.sam.gov and on DSIP at https://www.dodsbirsttr.mil/submissions/learning-support/firm-templates. Use of these templates is mandatory.

As required, Volume 5: Supporting Documents is provided for small businesses to submit additional documentation to support the Technical Volume (Volume 2) and the Cost Volume (Volume 3).

Volume 6: Fraud, Waste and Abuse Training, is not required by DARPA at this time. Proposers are strongly encouraged to review the Fraud, Waste and Abuse Training materials provided during the proposal submission in DSIP. 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.

A.2 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 section 4.5 regarding marking propriety proposal information.

A.3 Phase I Proposal Instructions

a. **Proposal Cover Sheet (Volume 1)**

The Cover Sheet must include a brief technical abstract of no more than 200 words 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)**

- 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 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.**

- Length: The length of the technical volume will be specified by the corresponding SBO. The Government will not consider pages in excess of the page count limitations.

- 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. Please refer to the attachment titled Phase I Template – Volume 2: Technical Volume for additional details.

c. **Content of the Technical Volume (Volume 2)**

The Technical Volume should cover the following items in the order given below:

1. **Identification and Significance of the Problem or Opportunity.** Define the specific technical problem or opportunity addressed and its importance.

2. **Phase I Technical Objectives.** Enumerate the specific objectives of the Phase I work, including the questions the research and development effort will try to answer to determine the feasibility of the proposed approach.

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

   a) 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. This section should be a substantial portion of the Technical Volume section.

b) The SBO may have been identified by the Program Manager as research or activities involving Human/Animal Subjects and/or Recombinant DNA. In the event that Phase I performance includes performance of these kinds of research or activities, please identify the applicable protocols and how those protocols will be followed during Phase I. Please note that funds cannot be released or used on any portion of the project involving human/animal subjects or recombinant DNA research or activities until all of the proper approvals have been obtained (see Sections 4.7 and 4.8).

4. **Related Work**. Describe significant activities directly related to the proposed effort, including any conducted by the PI, the proposing firm, consultants, or others. Describe how these activities interface with the proposed project and discuss any planned coordination with outside sources. The technical volume 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 I effort in providing a foundation for Phase II research or research and development 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 I effort including information on directly related education and experience. A concise technical resume of the PI, including a list of relevant publications (if any), must be included (Please do not include Privacy Act Information). <u>All resumes will count toward the page limit for Volume 2, as specified in the SBO</u>.

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 section 3.2 of this 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 I effort. Justify equipment purchases in this section and include detailed pricing information in the Cost Volume. 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**. 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 Guidance. Please refer to section 3 of this 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 a corresponding SBO is substantially the same as another proposal that was funded, is now being funded, or is pending with another Federal Agency, or another DoD Component or DARPA, 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. **Commercialization Strategy**. DARPA is equally interested in dual use commercialization of SBIR/STTR project results to the U.S. military, the private sector market, or both, and expects explicit discussion of key activities to achieve this result in the commercialization strategy part of the proposal. Phase I is the time to plan for and begin transition and commercialization activities. The small business must convey an understanding of the preliminary transition path or paths to be established during the Phase I project.

The Phase I commercialization strategy shall not exceed 5 pages. It should be the last section of the technical volume and include the following elements:

a. A summary of transition and commercialization activities conducted during prior SBIR/STTR efforts if applicable, and the Technology Readiness Level (TRL) achieved.
b. Problem or Need Statement. Briefly describe 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.
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?
e. Target Market. Describe the market and customer sets you propose to target, their size, their growth rate, and their key reasons they would consider procuring the technology. Describe competing technologies existent today on the market as well as those being developed in the lab.
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. 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.
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 Commercialization Results. Include a schedule showing the anticipated quantitative 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.

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 Cost Volume (Volume 3)

Proposers are required to use the Phase I – Volume 3: Cost Proposal Template (Excel Spreadsheet) provided on the DSIP submission site.

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 cost to attend a project-related meeting or conference, and used a travel website to compare flight costs, include a screen shot 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 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 for travel funds must be justified and related to the needs of the project.
- 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. Provide detailed substantiation of subcontractor costs in your cost proposal. Enter this information in the Explanatory Material section of the on-line cost proposal form. The Supporting Documents Volume (Volume 5) may be used if additional space is needed.

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

f. Company Commercialization Report (Volume 4)

The Company Commercialization Report is prepared through DSIP. A Company Commercialization Report is required even if the proposing firm has not previously received SBIR or STTR awards. Follow the instructions on DSIP and enter the quantitative commercialization results of your firm's prior SBIR/STTR Phase II projects. Include the items listed below as well as other information relative to your firm's commercialization track record.

(1) Sales revenue from new products and non-R&D services resulting from Phase II technology;

(2) Additional investment from sources other than the federal SBIR/STTR Program in activities that further the development and/or commercialization of Phase II technology;

(3) Whether the Phase II technology has been used in a fielded DoD system or acquisition program and, if so, which system or program;

(4) The number of patents resulting from the contractor's participation in the SBIR/STTR Program;

(5) Growth in number of firm employees; and

(6) Whether the firm has completed an initial public offering of stock (IPO) resulting, in part, from a Phase II project.

All prior DoD and non-DoD Phase II projects must be reported, regardless of whether the project has any commercialization to date.

The website will compare these results to the historical averages for the DoD SBIR/STTR Program to calculate a Commercialization Achievement Index (CAI) value. Only firms with four or more Phase II projects that were awarded at least two years prior to the SBO for this BAA will receive a CAI score; otherwise the CAI is not applicable (see the Company Commercialization Report section of the DoD Submission website for more details). Firms with a CAI at the 20th percentile or below will be rated no higher than "Marginal" for this factor. A report showing that a firm has received no prior Phase II awards will not affect the firm's ability to obtain an SBIR/STTR award.

Additional explanatory material relating to the firm's record of commercializing its prior SBIR or STTR projects may be included in the Commercialization Track Record Narrative section of the Company Commercialization Report. Examples of the additional information include: commercialization successes in government or private sector markets that are not fully captured in the quantitative results (e.g. commercialization resulting from your firm's prior Phase I projects); any mitigating factors that could account for low commercialization; and recent changes in the firm's organization or personnel designed to increase the firm's commercialization success.

APPENDIX B: DP2 PROPOSAL INSTRUCTIONS

B.1 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 (if applicable)
Volume 6: Fraud, Waste and Abuse Training (optional)

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 SBO to which they are responding.

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://beta.sam.gov and on DSIP at https://www.dodsbirsttr.mil/submissions/learning-support/firm-templates. Use of these templates is mandatory.

As required, Volume 5: Supporting Documents is provided for small businesses to submit additional documentation to support the Technical Volume (Volume 2) and the Cost Volume (Volume 3).

Volume 6: Fraud, Waste and Abuse Training, is not required by DARPA at this time. Proposers are strongly encouraged to review the Fraud, Waste and Abuse Training materials provided during the proposal submission in DSIP. 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.

B.2 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 section 4.5 regarding marking propriety proposal information.

B.3 DP2 Proposal Instructions

a. **Proposal Cover Sheet (Volume 1)**

The Cover Sheet must include a brief technical abstract of no more than 200 words 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)**

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

- 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 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.**

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

- 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)**

PART ONE: Feasibility Documentation

- Provide documentation to substantiate that the scientific and technical merit and feasibility described in the Phase I section of the SBO has been met and describes 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.
- Maximum page length for feasibility documentation will be specified by the SBO. If you have references, include a reference list or works cited list as the last page of the feasibility documentation. This will count towards the page limit.
- Work submitted within the feasibility documentation must have been substantially performed by the proposer and/or the PI.
- 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.

- Include a one page summary on Commercialization Potential addressing the following:
  i. Does the company contain marketing expertise and, if not, how will that expertise be brought into the company?
  ii. 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: Technical Proposal

(1) **Significance of the Problem.** Define the specific technical problem or opportunity addressed and its importance.

(2) **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.

(3) **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 in order to avoid potential delay of contract award.

b) Phase II Option Statement of Work (if applicable, specified in the corresponding SBO). 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.

(4) **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.**

i. State the anticipated results of the proposed approach if the project is successful.
ii. Discuss the significance of the Phase II effort in providing a foundation for Phase III research and development or commercialization 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 section 3.2 of this 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**. 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 Guidance. Please refer to section 3 of this 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 an SBO 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) **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 commercialization strategy part of the proposal. **The Technical Volume of each Direct to Phase II proposal must include a commercialization strategy section.** The Phase II commercialization strategy shall not exceed 5 pages, and will NOT count against the proposal page limit.

If the proposer has included a separately priced option and milestones for consideration for the DARPA Embedded Entrepreneur Initiative (EEI), 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 section 2.6 of this BAA for more information on the DARPA EEI and additional proposal requirements.

The 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 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.
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? 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 customer sets you propose to target, their size, their growth rate, and their key reasons they would consider procuring the technology. Describe competing technologies existent today on the market as well as those being developed in the lab.

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) **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.

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 Commercialization Results.** Include a schedule showing the anticipated quantitative 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.

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 Cost Volume (Volume 3)

Proposers are required to use the Direct to Phase II – Volume 3: Cost Proposal Template (Excel Spreadsheet) provided as an attachment to this announcement. The Cost Volume (and supporting documentation) DOES NOT count toward the page limit of the Technical Volume.

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 cost to attend a project-related meeting or conference, and used a travel website to compare flight costs, include a screen shot 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 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 for travel funds must be justified and related to the needs of the project.
- 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. Provide detailed substantiation of subcontractor costs in your cost proposal. Enter this information in the Explanatory Material section of the on-line cost proposal form. The Supporting Documents Volume (Volume 5) may be used if additional space is needed.

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.

f. Company Commercialization Report (Volume 4)

The Company Commercialization Report is prepared through the DoD Submission web site (https://sbir.defensebusiness.org/). A Company Commercialization Report is required even if the proposing firm has not previously received SBIR or STTR awards. Follow the instructions on the SBIR/STTR Submission website and enter the quantitative commercialization results of your firm's prior SBIR/STTR Phase II projects. Include the items listed below as well as other information relative to your firm's commercialization track record.

(1) Sales revenue from new products and non-R&D services resulting from Phase II technology;

(2) Additional investment from sources other than the federal SBIR/STTR Program in activities that further the development and/or commercialization of Phase II technology;

(3) Whether the Phase II technology has been used in a fielded DoD system or acquisition program and, if so, which system or program;

(4) The number of patents resulting from the contractor's participation in the SBIR/STTR Program;

(5) Growth in number of firm employees; and

(6) Whether the firm has completed an initial public offering of stock (IPO) resulting, in part, from a Phase II project.

All prior DoD and non-DoD Phase II projects must be reported, regardless of whether the project has any commercialization to date.

The website will compare these results to the historical averages for the DoD SBIR Program to calculate a Commercialization Achievement Index (CAI) value. Only firms with four or more Phase II projects that were awarded at least two years prior to the SBO close will receive a CAI score; otherwise the CAI is not applicable (see the Company Commercialization Report section of the DoD Submission website for more details). Firms with a CAI at the 20th percentile or below will be rated no higher than "Marginal" for this factor. A report showing that a firm has received no prior Phase II awards will not affect the firm's ability to obtain an SBIR award.

Additional explanatory material relating to the firm's record of commercializing its prior SBIR or STTR projects may be included in the Commercialization Track Record Narrative section of the Company Commercialization Report. Examples of the additional information include: commercialization successes in government or private sector markets that are not fully captured in the quantitative results (e.g. commercialization resulting from your firm's prior Phase I projects); any mitigating factors that could account for low commercialization; and recent changes in the firm's organization or personnel designed to increase the firm's commercialization success.

APPENDIX C: OT AUTHORITY

Other Transactions (OTs) for prototype projects are awarded under the authority of 10 U.S.C. § 2371b. This authority allows DARPA to use OTs for prototype projects directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the Department of Defense (DoD), to the improvement of platforms, systems, components, or materials proposed to be acquired or developed by the DoD, or to the improvement of platforms, systems, components, or materials in use by the Armed Forces. For additional information on DARPA's authority to award OT agreements for prototype projects, please see https://aaf.dau.mil/ot-guide/.

OTs for prototype projects are instruments that are generally not subject to the Federal laws and regulations governing procurement contracts. OTs for prototype projects are not subject to the Federal Acquisition Regulation (FAR) and the DoD supplement (DFARS) or applicable grant and cooperative agreement regulations, and the articles in OT awards can be negotiated between the awardee and the Government. Further, OT awardees are not subject to the FAR cost accounting standards. As a result, the use of OTs should streamline the award process, making it faster than the traditional Government contracting process and more akin to a commercial contract award timeline. Once the selections are made, the negotiation time will vary from contractor to contractor. Quick negotiations between responsive parties will enable fast awards.

With the passing of the National Defense Authorization Act (NDAA) of 2018, an update to the statutory language under 2371b(d)(1) permits DARPA's OT authority to be used only when one of the following conditions are met:

(A) There is at least one nontraditional defense contractor participating to a significant extent in the prototype project;
(B) All significant participants in the transaction other than the Federal Government are small businesses (including small businesses participating in a program described under section H. R. 2810—213 9 of the Small Business Act (15 U.S.C. 638)) or nontraditional defense contractors;
(C) At least one third of the total cost of the prototype project is to be paid out of funds provided by sources other than the Federal Government; or
(D) The senior procurement executive for the agency determines in writing that exceptional circumstances justify the use of a transaction that provides for innovative business arrangements or structures that would not be feasible or appropriate under a contract, or would provide an opportunity to expand the defense supply base in a manner that would not be practical or feasible under a contract.

As defined by 10 U.S.C. § 2302(9), a nontraditional defense contractor, with respect to a procurement or with respect to a transaction authorized under section 2371b of this title, means an entity that is not currently performing and has not performed, for at least the one-year period preceding the announcement of sources by the Department of Defense for the procurement or transaction, any contract or subcontract for the Department of Defense that is subject to full coverage under the cost accounting standards prescribed pursuant to section 1502 of title 41 and the regulations implementing such section. To be considered as participating to a significant

extent, the proposal should substantiate that the effort being performed by the nontraditional defense contractor is critical to the technical success of the project.

If the proposer requests award of an OT as a non-traditional defense contractor, as defined by section 2302 (9) of title 10, United States Code, or as a small business, as defined under section 3 of the Small Business Act (15 U.S.C. § 632), information must be included in the price/cost proposal to support the claim. Additionally, if the proposer requests award of an OT agreement without the required one-third (1/3) cost share, information must be included in the price/cost proposal supporting that there is at least one non-traditional defense contractor or small business participating to a significant extent in the proposed prototype project or that all significant participants in the transaction other than the Federal Government are small businesses or non-traditional defense contractors. Proposers shall provide in their price/cost proposal an explanation of why the proposer believes the non-traditional defense contractor is participating to a significant extent.

Rights in technical data, including software, developed under the terms of any agreement resulting from proposals submitted in response to this BAA generally remain with the contractor, except that the Government obtains a royalty-free license to use such technical data only for Government purposes during the period commencing with award and ending five years after completion of the project under which the data were generated. This data should be marked with the restrictive legend specified in DFARS 252.227-7018. Upon expiration of the five-year restrictive license, the Government has unlimited rights in the SBIR data. During the license period, the Government may not release or disclose SBIR data to any person other than its support services contractors except: (1) For evaluation purposes; (2) As expressly permitted by the contractor; or (3) A use, release, or disclosure that is necessary for emergency repair or overhaul of items operated by the Government. See DFARS clause 252.227-7018, "Rights in Noncommercial Technical Data and Computer Software – Small Business Innovation Research (SBIR) Program."

In accordance with 10 U.S.C. § 2371b(f), the Government may award a follow-on production contract or Other Transaction (OT) for any OT awarded under this BAA if: (1) that participant in the OT, or a recognized successor in interest to the OT, successfully completed the entire prototype project provided for in the OT, as modified; and (2) the OT provides for the award of a follow-on production contract or OT to the participant, or a recognized successor in interest to the OT.

The sample OT agreement provided as an attachment to this BAA is representative of the terms and conditions that DARPA intends to award should an OT be the chosen award mechanism. Proposed milestone plan and schedule, and data rights assertions requested under proposal Volumes 2 and 3 will be included as attachments to the OT agreement upon negotiation and award.

Announcement of an SBIR/STTR Opportunity

Under Broad Agency Announcement (BAA) HR001120S0019

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

March 03, 2020

The DARPA Small Business Programs Office (SBPO) has pre-released the following SBIR/STTR Opportunities (SBOs):

"Programming Language Support for Assured Data Intent", Announcement Number HR001120S0019-01, published at https://sam.gov/search?keywords=HR001120S0019-01

"Rapid, Flexible Manufacturing of DNA Molecules for Synthetic Biology and Therapeutic Applications", Announcement Number HR001120S0019-02, published at https://sam.gov/search?keywords=HR001120S0019-02

"PiezoMEMS PDK", Announcement Number HR001120S0019-03, published at https://sam.gov/search?keywords=HR001120S0019-03

These SBOs will open for proposals on March 18, 2020 and close on April 20, 2020.

Announcement of an SBIR/STTR Opportunity

Under Broad Agency Announcement (BAA) HR001120S0019

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

April 08, 2020

The DARPA Small Business Programs Office (SBPO) has pre-released the following SBIR/STTR Opportunities (SBOs):

"Seabed Simulation Synthesis", Announcement Number HR001120S0019-04, published at https://sam.gov/search?keywords=HR001120S0019-04

"Wearable Laser Detection and Alert System", Announcement Number HR001120S0019-05, published at https://sam.gov/search?keywords=HR001120S0019-05

"Open Source Wide Band Software Defined Acoustic Modem", Announcement Number HR001120S0019-06, published at https://sam.gov/search?keywords=HR001120S0019-06

These SBOs will open for proposals on April 23, 2020 and close on May 26, 2020

Announcement of an SBIR/STTR Opportunity

Under Broad Agency Announcement (BAA) HR001120S0019

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

May 13, 2020

The DARPA Small Business Programs Office (SBPO) has pre-released the following SBIR/STTR Opportunities (SBOs):

"Compact Modular Detector for Water and Food Contaminants", Announcement Number HR001120S0019-07, published at https://sam.gov/search?keywords=HR001120S0019-07

"Near-Term Forecasting of Nonstationary Dynamic Processes", Announcement Number HR001120S0019-08, published at https://sam.gov/search?keywords=HR001120S0019-08

"Organizational Modeling", Announcement Number HR001120S0019-09, published at https://sam.gov/search?keywords=HR001120S0019-09

“Flexible Manufacturing of Fine Chemical Reagents", Announcement Number HR001120S0019-10, published at https://sam.gov/search?keywords=HR001120S0019-10

These SBOs will open for proposals on May 28, 2020 and close on June 29, 2020 at 2:00pm ET

Announcement of an SBIR/STTR Opportunity

Under Broad Agency Announcement (BAA) HR001120S0019

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

June 25, 2020

The DARPA Small Business Programs Office (SBPO) has pre-released the following SBIR/STTR Opportunities (SBOs):

“N-polar GaN mm-wave Power Electronics on Sapphire", Announcement Number HR001120S0019-11, published at https://sam.gov/search?keywords=HR001120S0019-11

"Tough Self-Decontaminating Surfaces (TSDS)", Announcement Number HR001120S0019-12, published at https://sam.gov/search?keywords=HR001120S0019-12

"Field Controllable Modulator Array (FCMA)", Announcement Number HR001120S0019-13, published at https://sam.gov/search?keywords=HR001120S0019-13

These SBOs will open for proposals on July 10, 2020 and close on August 10, 2020 at 2:00pm ET

Announcement of an SBIR/STTR Opportunity

Under Broad Agency Announcement (BAA) HR001120S0019

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

August 06, 2020

The DARPA Small Business Programs Office (SBPO) has pre-released the following SBIR/STTR Opportunities (SBOs):

“AI-accelerated Biosensor Design", Announcement Number HR001120S0019-14, published at https://sam.gov/search?keywords=HR001120S0019-14&sort=-relevance&index=opp&is_active=true&page=1

"Replicating Human Tissue Complexity for High Throughput Testing", Announcement Number HR001120S0019-15, published at https://sam.gov/search?keywords=HR001120S0019-15&sort=-relevance&index=opp&is_active=true&page=1

"Grid Redesign, Integration and Defense by Modeling and Analysis of Power Systems (GRIDMAPS)", Announcement Number HR001120S0019-19, published at https://sam.gov/search?keywords=HR001120S0019-19&sort=-relevance&index=opp&is_active=true&page=1

"High performing soft magnetic material demonstrator for high efficiency power electronics", Announcement Number HR001120S0019-22, published at https://sam.gov/search?keywords=HR001120S0019-22&sort=-relevance&index=opp&is_active=true&page=1

These SBOs will open for proposals on August 21, 2020 and close on September 22, 2020 at 12:00 p.m. ET

Announcement of an SBIR/STTR Opportunity

Under Broad Agency Announcement (BAA) HR001120S0019

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

August 11, 2020

The DARPA Small Business Programs Office (SBPO) has pre-released the following SBIR/STTR Opportunities (SBOs):

"Rapid, flexible de novo manufacturing of DNA molecules for synthetic biology and therapeutic applications", Announcement Number HR001120S0019-16, published at https://beta.sam.gov/search?keywords=HR001120S0019-16&sort=-relevance&index=opp&is_active=true&page=1

"Trust Worthy Information Storage Technology Enhanced Devices (TWISTED)", Announcement Number HR001120S0019-20, published at https://sam.gov/search?keywords=HR001120S0019-20&sort=-relevance&index=opp&is_active=true&page=1

"Cryptography for Hyper-scale Architectures in a Robust Internet Of Things (CHARIOT)", Announcement Number HR001120S0019-21, published at https://sam.gov/search?keywords=HR001120S0019-21&sort=-relevance&index=opp&is_active=true&page=1

These SBOs will open for proposals on August 26, 2020 and close on September 29, 2020 at 12:00 p.m. ET

Announcement of an SBIR/STTR Opportunity

Under Broad Agency Announcement (BAA) HR001120S0019

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

August 19, 2020

The DARPA Small Business Programs Office (SBPO) has pre-released the following SBIR/STTR Opportunities (SBOs):

"Rapid Multi-modal Communications", Announcement Number HR001120S0019-17, published at https://sam.gov/search?keywords=HR001120S0019-17&sort=-relevance&index=opp&is_active=true&page=1

"Impact of Cockpit Electro-Magnetics on Aircrew Neurology (ICEMAN)", Announcement Number HR001120S0019-18, published at https://sam.gov/search?keywords=HR001120S0019-18&sort=-relevance&index=opp&is_active=true&page=1

These SBOs will open for proposals on September 03, 2020 and close on October 05, 2020 at 12:00 p.m. ET

Announcement of an SBIR/STTR Opportunity

Under Broad Agency Announcement (BAA) HR001120S0019

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

November 02, 2020

The DARPA Small Business Programs Office (SBPO) has pre-released the following SBIR/STTR Opportunities (SBOs):

“Next-Generation Approaches to Structural Biology", Announcement Number HR001120S0019-23, published at https://sam.gov/search?keywords=HR001120S0019-23&sort=-relevance&index=opp&is_active=true&page=1

"High-throughput, non-destructive methods for elemental analysis of environmental microbes", Announcement Number HR001120S0019-24, published at https://sam.gov/search?keywords=HR001120S0019-24&sort=-relevance&index=opp&is_active=true&page=1

These SBOs will open for proposals on November 17, 2020 and close on December 17, 2020 at 12:00 p.m. ET

Announcement of an SBIR/STTR Opportunity

Under Broad Agency Announcement (BAA) HR001120S0019

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

November 17, 2020

The DARPA Small Business Programs Office (SBPO) has pre-released the following SBIR/STTR Opportunities (SBOs):

"Thermal Emission Control using Dynamic Structured Materials", Announcement Number HR001120S0019-25, published at https://sam.gov/search?keywords=HR001120S0019-25&sort=-relevance&index=opp&is_active=true&page=1

"Smart Hemorrhage Control and Resuscitation at Point of Injury", Announcement Number HR001120S0019-26, published at https://sam.gov/search?keywords=HR001120S0019-26&sort=-relevance&index=opp&is_active=true&page=1

"Rapid and automated sterility testing of biologics", Announcement Number HR001120S0019-27, published at https://sam.gov/search?keywords=HR001120S0019-27&sort=-relevance&index=opp&is_active=true&page=1

These SBOs will open for proposals on December 03, 2020 and close on January 05, 2021 at 12:00 p.m. ET