

Department of the Army
22.4 Small Business Innovation Research (SBIR)
xTech Search 6 Finalists
Proposal Submission Instructions

May 17, 2022: Army begins accepting proposals via DSIP

June 14, 2022: Deadline for receipt of proposals no later than 12:00 p.m. ET

IMPORTANT: A prize competition, xTechSearch 6 Competition, will be used to identify small business concerns that meet the criteria for award. Winners selected from the xTechSearch 6 prize competition will be the only firms eligible to submit a proposal under this topic. All other proposals will not be evaluated. See the full xTechSearch 6 prize competition RFI here: [xTechSearch 6-Competitions - xTechSearch \(army.mil\)](#).

INTRODUCTION

The future Army must be capable of conducting Multi-Domain Operations (MDO) as part of an integrated Joint Force across an array of situations in multiple theaters by 2035. The MDO concept describes how the Army will support the Joint Force in the rapid and continuous integration of all domains of warfare – land, sea, air, and cyberspace – to deter and prevail as we compete short of conflict, and fight and win if deterrence fail. The Army must provide game-changing capabilities to our Soldiers. To capitalize on small business innovation, the Army has implemented an approach to advertise SBIR funding opportunities through the Department of Defense (DoD) Annual BAA process, outside of the three pre-determined BAA cycles. This approach also strives to create a more rapid award time from solicitation to closing.

Topics released under this BAA deviate from the traditional Army SBIR period of performance, contract award guidelines, and other proposal instructions. Please take note of the contents of the DoD Program BAA instructions, supplemented herein, when preparing proposals. Proposals will only be evaluated in response to an active corresponding Army topic.

This BAA must follow all general instructions provided in the Department of Defense (DoD) SBIR Program BAA. The Department of the Army requirements in addition to or deviating from the DoD Program BAA are provided in the instructions below.

Specific questions pertaining to the administration of the Army SBIR/xTech Program and these proposal preparation instructions should be directed to: Army Applied SBIR Team at usarmy.pentagon.hqda-asalt.mbx.army-applied-sbir-program@army.mil.

ELIGIBILITY

The eligibility requirements for the SBIR/STTR programs are unique and do not correspond to those of other small business programs. Please refer to Section 3.1, Eligible Applicants, of BAA 22.4 for full eligibility requirements.

A prize competition, xTechSearch 6, will be used to identify small business concerns that meet the criteria for award of a Phase I SBIR contract under 10 U.S.C. §2374a. Winners selected from the xTechSearch 6 prize competition will be the only firms eligible to submit a Phase I proposal under this announcement. The xTechSearch 6 prize competition announcement can be found at:

<https://www.arl.army.mil/xtechsearch/competitions/xtechsearch6.html>

Anticipated Structure/Award Information

For this topic, Department of the Army will accept Phase I proposals for the cost of up to \$250,000 for up to 6-month period of performance. Eligible firms will be notified to submit a Phase I proposal following completion of the xTechSearch 6 prize competition, executed in accordance with 10 U.S.C. Section 2374a.

Proposals that do not comply with the requirements detailed in BAA 22.4 and the research objectives of these Component Instructions are considered non-conforming and therefore are not evaluated nor considered for award.

Phase I proposals in response to this BAA include the following:

- Volume 1: Proposal Cover Sheet
- Volume 2: Technical Volume
 - Part 1: Justification Documentation (1 page maximum) that will be provided by the Army Applied SBIR Office after selection as a winner of the xTechSearch 6 prize competition
 - Part 2: Technical Objectives and Approach (15 slides maximum) that will be provided by the Army Applied SBIR Office and Army xTech Program after selection as a winner of the xTechSearch 6 prize competition
- Volume 3: Cost Volume
- Volume 4: Company Commercialization Report (REQUIRED)
- Volume 5: Supporting Documents
 - Contractor Certification Regarding Provision of Prohibited Video Surveillance and Telecommunications Services and Equipment (REQUIRED)
 - Foreign Ownership or Control Disclosure (Proposers must review Attachment 2: Foreign Ownership or Control Disclosure to determine applicability.)
 - Other supporting documentation (if applicable)
- Volume 6: Fraud, Waste and Abuse Training (REQUIRED)

PHASE I PROPOSAL GUIDELINES

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

Technical Volume (Volume 2)

The technical volume is not to exceed 15 slides and must follow the template and formatting requirements provided to the xTechSearch 6 Finalists. Any proposals submitted in a format other than what has been provided by the Army SBIR/xTech program or in excess of the page limit will not be reviewed.

Content of the Technical Volume

The Technical Volume will contain three key sections – Potential for Impact/Revolutionary for the Army, Army Transition Plan, and Commercialization and Potential. The technical volume should include Part 1: Justification Documentation (1 page maximum) that will be provided by the Army Applied SBIR Office after selection as a winner of the xTechSearch 6 Competition; Part 2: Technical Objectives and approach (15 slides maximum) that will be provided by the Army Applied SBIR and xTech Program Offices to the Finalists of the xTechSearch 6

Competition. These instructions supersede those stated in section 5.3.c of the DoD Program BAA.

Cost Volume (Volume 3)

Unless otherwise noted in the topic, the Phase I Base amount must not exceed \$250,000 for a 6-month period of performance. Phase I Options are not anticipated at this time. If an option is identified in the topic posting, costs for the Base and Option must be separated and clearly identified on the Proposal Cover Sheet (Volume 1) and in Volume 3.

For pricing purposes, offerors should assume a contract or agreement start date of approximately ninety (90) days after submission of the proposal. For this BAA, adequate price competition (APC), as defined in FAR 15.403-1(c), is anticipated. In the event that adequate price competition is not realized (i.e. only one proposal is received for a given topic), the Government may choose to conduct additional proposal analysis, in accordance with the techniques identified at FAR 15.404-1. Additionally, offerors are to provide any current Forward Pricing Rate Agreements (FPRA) in effect at time of proposal submission.

Content of the Cost Volume (Volume 3)

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

If a DCAA Audit has been conducted within the last five (5) years, include the audit compliance documentation in the cost proposal documents. The documentation should also include the offeror's DCAA Point of Contact (if applicable).

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.

Company Commercialization Report (CCR) (Volume 4)

Completion of the CCR as Volume 4 of the proposal submission in DSIP is required. Please refer to the DoD SBIR Program BAA for full details on this requirement. Information contained in the CCR will be considered by the Department of the Army during proposal evaluations.

Supporting Documents (Volume 5)

Volume 5 is provided for proposers to submit additional documentation to support the Cover Sheet (Volume 1), Technical Volume (Volume 2), and the Cost Volume (Volume 3). In addition to the Volume 5 requirements outlined in the DoD Program BAA, the Department of the Army may accept the following documents in Volume 5:

- Additional Cost Information
- Funding Agreement Certification
- Technical Data Rights (Assertions)
- Lifecycle Certification

- Allocation of Rights
- Other (only as specified in the topic)

Please only submit documents that are identified in the topic instructions. All other submissions will be disregarded.

DISCRETIONARY TECHNICAL AND BUSINESS ASSISTANCE (TABA)

The Army, at its discretion, may provide Technical and Business Assistance (TABA). The Army will select a preferred vendor(s) for the Army SBIR TABA program through a competitive process. Alternately, a small business concern may, by contract or otherwise, select one or more vendors to assist the firm in meeting the TABA goals. The Applicant must request the authority to select its own TABA provider in the Army SBIR proposal, demonstrating that the vendor is uniquely postured to provide the specific technical and business services required.

Participation in the Army SBIR TABA program is voluntary for each Army SBIR awardee. Services provided to Army SBIR firms under the auspices of the TABA program may include, but are not limited to:

1. Access to a network of scientists, engineers, and technologists focused on commercialization and transition considerations such as protected supply chain management, advanced manufacturing, process/product/production scaling, etc;
2. Assistance with intellectual property protections, such as legal considerations, intellectual property rights, patent filing, patent fees, licensing considerations, etc;
3. Commercialization and technology transition support such as market research, market validation, development of regulatory or manufacturing plans, brand development;
4. Regulatory support such as product domain regulatory considerations, regulatory planning, and regulatory strategy development.

The Army SBIR program sponsors participation in the TABA program. The resource limitation for each firm is:

- Phase I Firms: Up to \$6,500 per project per year (in addition to the base SBIR award amount);
- Phase II Firms: Up to \$50,000 per project;
 - Army-Preferred Vendor: In addition to the base SBIR award amount;
 - Firm-Selected Vendor: Included in the base SBIR award amount and must be included in Phase II proposal.

PHASE II PROPOSAL GUIDELINES

Phase II proposals may only be submitted by Phase I awardees. Phase II proposal submission window, notification process, expected budget/duration structure and additional instructions will be provided in the Phase I contract or by subsequent notification.

EVALUATION AND SELECTION

All proposals will be evaluated during the xTechSearch 6 Finals in accordance with the evaluation criteria that has been provided to the xTechSearch 6 Finalists. It is the policy of the Army to ensure equitable and comprehensive proposal evaluations based on the evaluation criteria provided to the finalists 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. The Army 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 opportunity are considered non-conforming and therefore will not be evaluated nor considered for award.

During the xTechSearch 6 competition finals, 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 the xTechSearch 6 prize competition.

Awards will be made to proposers whose proposals are determined to be the most advantageous to the Government, consistent with instructions and evaluation criteria provided to the xTechSearch 6 finalists, subsequent opportunities issued, and availability of funding. Given the limited funding available for each opportunity, 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 provided to the xTechSearch 6 Finalists, and the strengths of the overall proposal outweighs its weaknesses. Additionally, there are no accumulated weaknesses that would require extensive negotiations and/or a revised 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 provided to the xTechSearch 6 Finalists and the strengths of the overall proposal do not outweigh its weaknesses.

Proposing firms will be notified via email of selection or non-selection status for a Phase I award within 90 days of the closing date of this announcement. The notification will come from the Army SBIR Program Office PoC mailbox sent to the Corporate Official listed on the proposal cover sheet. The Army promotes transparency regarding the technical evaluation for all Army SBIR proposals. The Army 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.

A Contracting Officer (KO) may contact applicants, when the Army SBIR Office has recommended a proposal for award, in order to discuss additional information required for award. This may include representations and certifications, revised budgets or budget explanations, certificate of current cost or pricing data, subcontracting plan for small businesses, and/or other information as applicable to the proposed award. The anticipated start date will be determined at that time.

Proposers must not regard the notification email as an authorization to commit or expend funds. Until a Government KO signs the award document (i.e. contract), no obligations to provide funding are made. The award document signed by the Government KO is the official and authorizing award instrument (i.e. contract). The KO will email the signed, authorizing award instrument to the principal investigator (PI) and/or an authorized organization representative.

Refer to the DoD SBIR Program BAA for procedures to protest the Announcement.

As further prescribed in FAR 33.106(b), FAR 52.233-3, Protests after Award should be submitted to the Point of Contract identified in the topic solicitation:

Email: usarmy.pentagon.hqda-asa-alt.mbx.army-applied-sbir-program@army.mil

Mailing Address:

Army Applied SBIR Office
2800 Crystal Dr; Ste 11252
Arlington, VA 22201

AWARD AND CONTRACT INFORMATION

Only proposers who are winners in xTechSearch 6 Finals and follow the evaluation criteria provided to them will be during their pitch will considered for this topic. If you are NOT a winner as a result of the xTechSearch 6 finals, please do not submit proposals for this topic as they will be automatically disqualified.

Army SBIR 22.4 Topic Index
Release 9

A224-017

xTech Search 6 SBIR Finalist Open Topic Competition

A224-016 xTech Search 6 SBIR Finalist Open Topic Competition

OUSD (R&E) MODERNIZATION PRIORITY: GWR; AI/ML; Autonomy

TECHNOLOGY AREA(S): Electronics; Human Systems; Materials

OBJECTIVE: xTechSearch is seeking novel, disruptive concepts and technology solutions with dual-use capabilities that can assist in tackling the Army's current needs and be applied to current Army concepts. The intent is to provide the Army with transformative technology solutions while enabling cost savings throughout the Army systems' life cycle.

Critical technology focus areas include Artificial Intelligence / Machine Learning (AI/ML); Advanced Materials; Advanced Manufacturing; Autonomy; Cyber; Electronics; Human Performance; Immersive; Network Technologies; Position, Navigation and Timing (PNT); Power; Software Modernization; and Sensors. See attached document on the Valid Eval registration page for a list of the top Army Modernization Priorities and other critical Army Focus Areas.

DESCRIPTION:

The xTechSearch competition strives to integrate small businesses into the Army's S&T ecosystem by providing research opportunities with Army labs, including authorized access to the Army's organic intellectual and technical capital. Participants will receive detailed feedback from Army and Department of Defense (DoD) stakeholders. Participants will have access to training, mentorship and other support infrastructure as they progress through the contest to determine how best to align their technology solutions with real users and buyers within the Army. Finalists will be entered into the xTech Accelerator to receive intensive mentorship and access to networking events to help grow their companies for Army and commercial users. xTechSearch is an opportunity for eligible participants to pitch novel technology solutions – a new application for an existing technology or an entirely new technology concept – to the Army.

PHASE I: Companies will complete a feasibility study that demonstrates the firm's competitive technical advantage relative to other commercial products (if other products exist) and develop concept plans for how the company's technology can be applied to Army modernization priority areas. Studies should clearly detail and identify a firm's technology at both the individual component and system levels, provide supporting literature for technical feasibility, highlight existing performance data, showcase the technology's application opportunities to a broad base of customers outside the defense space, a market strategy for the commercial space, how the technology directly addresses the Army's modernization area as well as include a technology development roadmap to demonstrate scientific and engineering viability.

At the end of Phase I, the company will be required to provide a concept demonstration of their technology to demonstrate a high probability that continued design and development will result in a Phase II mature product.

PHASE II: Produce prototype solutions that will be easy to operate by a Soldier. These products will be provided to select Army units for further evaluation by the soldiers. In addition, companies will provide a technology transition and commercialization plan for DOD and commercial markets.

PHASE III DUAL USE APPLICATIONS: Complete the maturation of the company's technology developed in Phase II to TRL 6/7 and produce prototypes to support further development and commercialization. The Army will evaluate each product in a realistic field environment and provide small solutions to stakeholders for further evaluation. Based on soldier evaluations in the field,

companies will be requested to update the previously delivered prototypes to meet final design configuration.

REFERENCES: <https://www.arl.army.mil/xttechsearch/competitions/xttechsearch6.html>

KEYWORDS: AI/ML; Electronics; Human performance; open topic; prize competition; dual-use