I. Background and Purpose

The U.S. Army is seeking tactical-level artificial intelligence (AI) solutions from eligible small to medium business attending DEF CON 33 in Las Vegas, NV, from August 8-9, 2025, to assist with critical Army priorities through the xTechLive competition. This platform offers participants the opportunity to engage with the U.S. Department of Defense (DoD) and compete for prize money.

The U.S. Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(ALT)) is partnering with the Headquarters Department of Army G2 (HQDA-G2) Intelligence, Surveillance and Reconnaissance (ISR) Task Force to deliver the xTechLive competition at DEF CON. The U.S. Army recognizes that the U.S. DoD must enhance engagements with industry by reaching new audiences through innovative platforms such as live pitch competitions held at venues not traditionally attended by the U.S. Army. This initiative aims to (1) understand the spectrum of 'world-class' technologies being developed commercially that may benefit the U.S. DoD; (2) integrate the sector of non-traditional innovators into the U.S. DoD Science and Technology (S&T) ecosystem; and (3) provide expertise and feedback to accelerate, mature, and transition technologies of interest to the U.S. DoD.

The competition will award up to \$100,000 in cash prizes to selected participants. **Up to 18 applicants will be selected onsite to present their technology concepts to a live panel of U.S. Army and DoD subject matter experts (SMEs) on either August 8 or 9, 2025.** The U.S. Army intends to select up to six (6) winners to receive a cash prize of first and second place: \$25,000; third and fourth place: \$15,000; and fifth and sixth place: \$10,000.

Registration will take place onsite at the Las Vegas Convention Center, West Exhibit Hall W4 in the U.S. Army xTech Program booth **on August 8, 2025, from 10:00 a.m. – 3:30 p.m. PT** *(dates and locations are subject to change without notice)*. To be considered for a live pitch presentation, interested entities must first meet the requirements outlined in Section II. Additionally, eligible entities will be required to fill out a registration form and provide a **60-second elevator pitch** of their technology concept, addressing a solution capable of real-time or near-real-time fusion of noisy, unstructured, and multimodal data sources based on tactical priorities. This is required to ensure alignment with the U.S. Army's objectives. For additional details, please refer to Section IV.

All presentations will be conducted in front of a public audience.

In addition to non-dilutive cash prizes, participants may have the opportunity to engage with U.S. Army and DoD experts attending DEF CON 33, receiving valuable feedback on their innovations.

The efforts described in this notice are being pursued under the authorities of 10 U.S.C. § 4025 to award cash prizes recognizing advanced technology achievements.

While the authority of this program is 10 U.S.C. § 4025, the xTechLive competition may generate interest by another U.S. Army, DoD or United States Government (USG) organization for a funding opportunity outside of this program (e.g., submission of a proposal under a Broad Agency Announcement). The interested organization may contact the participant to provide additional information or ask for a request for proposal in a separate solicitation. Winners of the prize competition may have opportunities to submit a separate proposal for further development of their proposed technology solution based on the needs of the Army. The Army may use a

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contract mechanism of their choice and will notify the participants accordingly.

The xTech Program is conducted in accordance with 10 U.S.C. § 4025, which authorizes the use of prize competitions to stimulate innovation and identify promising technologies for national security applications. As such, this competition serves as a competitive down select mechanism that enables government organizations to engage with winners through a variety of follow-on acquisition pathways, including but not limited to:

- 10 U.S.C. § 4114 Selection of contractors for prototype projects
- 10 U.S.C. § 4022 Prototype projects
- 10 U.S.C. § 4023 Procurement for experimental purposes
- 10 U.S.C. § 4001 Research and development
- 10 U.S.C. § 4021 Other Transaction Authority (OTA)
- 15 U.S.C. § 3703 Technology innovation partnerships

Government organizations are encouraged to consider leveraging these statutory authorities to pursue follow-on awards with companies identified through the xTech competition process. This approach supports rapid technology maturation, accelerates the transition of innovative capabilities to the field, and promotes collaboration with non-traditional and small business performers.

The U.S. Army xTech Program utilizes the online evaluation and feedback tool, Valid Eval, to accept applications and streamline the evaluation and feedback process. xTech will provide a feedback report to participants following the live pitch event that will be accessible through the tool. These reports are intended to support the potential acceleration of technology transition by offering insights into relevant Army applications, recommendations for refinement to better meet Army needs, and suggested next steps for further development. Please note that while this feedback is provided as a resource, the government may not respond to individual questions or inquiries related to the content of the report.

II. Eligibility Requirements

To be eligible for this competition, entities must be a small to medium business attending DEF CON 33 in Las Vegas, NV. A small to medium business is defined as those with <1,500 employees.

Each eligible entity:

- Must be able to obtain a CAGE code (U.S. businesses) and/or NCAGE code (international businesses) to process payments (CAGE codes are not required during registration);
- Shall be incorporated in, and maintain, a primary place of business in the U.S. or a foreign country;
- May not be a U.S. federal or foreign government entity or employ a U.S. federal employee acting within the scope of their employment;
- May not be a company or person controlled by, funded by, or under the jurisdiction or direction of foreign adversaries; and
- Must not be based in a foreign country of concern (FCOC), directly funded by an FCOCgovernment or FCOC-government-subsidized guidance fund or be under the influence of an FCOC-based government in any way. Failure to meet these requirements will result in ineligibility for award.

Companies that have previously received a U.S. Army Small Business Innovation Research (SBIR) award or have been selected as a finalist or winner in an xTech prize competition are not permitted to resubmit the same technology concept that was previously contracted, awarded, or presented. Submissions must represent a materially distinct or significantly advanced iteration of the original concept.

The xTech Program will not provide travel or registration funding for eligible entities to attend DEF CON 33.

III. Topics and Problem Statements

The U.S. Army seeks a software-based AI-powered fusion engine that (1) ingests heterogeneous, disaggregated, noisy data sources (e.g., radar, cell phone activity, full motion video, intercepted radio transmissions, satellite imagery), (2) discovers the most valuable information across multiple data sets in near-real time, and (3) allows for dissemination of outputs in an object-ready format.

The solution should be capable of real-time or near-real-time fusion of noisy, unstructured, and multimodal data sources based on tactical priorities. The solution should enable analysts and decision-makers to take action in a timely manner. Last, the tool should:

- Handle fragmented, incomplete, and competing data streams without prior labeling
- Find pertinent data based on user-defined parameters
- Include source information in the data labels
- Validate the data and communicate a confidence level (high, moderate, low)
- Identify and evaluate data (hallucinations, biases, and inaccuracies)
- Use explainable AI models
- Identify additional information needed to increase confidence levels
- Identify key patterns or correlations
- Highlight anomalous or emergent activity

Topic descriptions can be found in <u>Appendix A</u> of this solicitation.

IV. Program Submission and Competition Structure

The xTechLive competition is voluntary and open to all entities that meet the eligibility requirements, noted in Section II. **Only one pitch per eligible entity is permitted.**

Registration and 60-Second Elevator Pitch

All eligible entities must be able to register onsite at the Las Vegas Convention Center, West Exhibit Hall W4 in the U.S. Army xTech Program booth **on August 8, 2025, from 10:00 a.m. – 3:30 p.m. PT,** during DEF CON 33, and must adhere to the following requirements:

- Complete a registration form using the Valid Eval platform, which includes the following information: company address, primary contact's information, CAGE and/or NCAGE (optional) and previous U.S. Army SBIR awards.
 - New participants must have access to a current, active email address in order to create an account in Valid Eval. Email verification is required during the registration process, and participants must be able to access their email onsite to complete account setup.
- Deliver a **timed 60-second elevator pitch** of their technology concept addressing a solution capable of real-time or near-real-time fusion of noisy, unstructured, and

multimodal data sources based on tactical priorities – to a panel of U.S. Army and DoD technical experts will evaluate the pitch.

• Follow-up questions may be asked, and participants must be prepared to provide a concise 30-second response.

Failure to meet the above requirements may result in disqualification from participation in the pitch event.

Please note: Selection for pitch presentations is at the sole discretion of the U.S. Army. While companies may believe their technology aligns with the stated topic, final determinations will be made exclusively by the Army based on the content and clarity of the 60-second elevator pitch and alignment with the Army's priorities as defined in this RFI.

Elevator pitches will be evaluated and ranked using the following scoring criteria:

		DEFINITION
ONE-MINUTE PITCH	CONCEPT OF OPERATIONS	Deliver a clear, concise description of your solution's concept of operations (CONOPS). Briefly address what problem(s) you will solve and the advantages of your approach.
	TOPIC ALIGNMENT	Argue your solution is aligned with this xTechLive topic – addressing a solution capable of real-time or near-real-time fusion of noisy, unstructured, and multimodal data sources.
weight 100%	ARMY BENEFITS	The Army seeks higher-risk, higher-impact solutions through xTechLive not engineering changes or incremental improvements. Use this section to describe your technology's impact and improvement upon the state of the art. (© 2011 - 2025 Valid Evaluation, Inc. All rights reserved)

The xTech Program will **select up to 18 applicants onsite during registration** to present their technology concepts to a live panel of U.S. Army and DoD SMEs. Selected participants may be scheduled to pitch immediately following registration on August 8, while others will be assigned pitch times on August 9, 2025.

Live Pitch Presentation

All presentations will be conducted in front of a public audience.

Each selected participant will conduct a timed, five (5) minute pitch, followed by a five (5) minute question and answer session with the judging panel. Participants may bring physical prototypes and printed materials to support their presentation. No presentation software/applications may be utilized.

All xTechLive competition pitches will be evaluated solely by government employees or designated support contractors, exclusively for the purposes of evaluation and program support.

Presentations will be evaluated and ranked using the following scoring criteria:

		DEFINITION
SOLUTION	SOLUTION Fully describe what you are offering in your solution. Give the	
	DESCRIPTION	audience a solid technical introduction on how your innovation
		works and what makes it different.
	PRODUCT	Please give the audience a clear understanding of your

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Weight 30%	MATURITY	innovation's technical maturity. Support that claim as best you can.	
COMPETITIVE ADVANTAGE	SOLUTION'S ADVANTAGES	Prove your prospective customers will choose you given limited resources and myriad choices. Have you accounted for indirect substitute products as well as direct competitors?	
Weight 20%	DEGREE OF	Prove that your solution is truly innovative. How big a departure from existing technical and/or operational approaches is your solution?	
COMMERCIAL REWARD VS. RISKS	MARKET SHARE	Define the specific commercial market segment your product addresses. Argue that your innovation will capture significant share within this market segment.	
Weight 15%	COMPANY'S EDGE	Why will you win? Describe your company's Competitive Edge in the marketplace: Something you do better than anyone else. This might be a intellectual property, unmatched relevant expertise, a novel business model, channel partners, network effects, etc.	
POTENTIAL FOR IMPACT	weight 30%	This Dimension is for the Army judges to figure out. It is their job – not yours!–to connect the dots and determine how your innovation can impact the Army. If you have direct knowledge of your potential within DoD, please briefly make your case. Otherwise, don't spend your valuable pitch time on this one.	
PRESENTATION QUALITY	weight 5%	This is a difficult task – presenting with little to no notice. The Army gets it! Please do your best to effectively get your message across.	

The xTech Program will select up to six (6) participants as the final winners of the competition.

Winners will be announced live on the U.S. Army xTech Program booth stage at the Las Vegas Convention Center, West Exhibit Hall W4 on August 9, 2025, at 3:00 p.m. PT and will receive a cash prize of first and second place: \$25,000; third and fourth place: \$15,000; and fifth and sixth place: \$10,000. All competition participants should plan to be present during the winner announcement.

*Dates, times and location are subject to change.

V. Proposed Schedule

The proposed schedule is outlined below and subject to change without notice.

Date	Activity
August 8, 2025	Registration (10:00 a.m. – 3:30 p.m. PT)
	Live Technology Pitches (4:00 p.m. – 6:00 p.m. PT)
August 9, 2025	Live Technology Pitches (10:30 a.m. – 12:15 p.m. PT) Live Winner Announcement (3:00 p.m. – 3:30 p.m. PT)

VI. Prizes and Incentives

Prizes will be offered under 10 U.S.C. §4025 (Prize Competitions). The total prize pool is \$100,000.

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Phase	Winners	Prize
Live Technology Pitches	Up to 6	1 st place: \$25,000
		2 nd place: \$25,000
		3 rd place: \$15,000
		4 th place: \$15,000
		5 th place: \$10,000
		6 th place: \$10,000
	Total	\$100,000

VII. Disclaimers

Registered participants shall be required to assume any and all risks and waive claims against the Federal Government and its related entities, except in the case of willful misconduct, for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from their participation in this prize competition, whether injury, death, damage, or loss arises through negligence or otherwise.

VIII. Intellectual Property

The U.S. Army is a strong proponent of deliberate intellectual property (IP) rights and management by the private sector and U.S. DoD. For the xTechLive competition:

- The U.S. Federal Government may not gain an interest in IP developed by a participant without the written consent of the participant;
- Nothing in this xTechLive prize competition shall diminish the U.S. Government's rights in patents, technical data, technical information, computer software, computer databases, and computer software documentation that the U.S. Government had prior to this xTechLive prize competition, or is entitled to, under any other U.S. Government agreement or contract, or is otherwise entitled to under law; and
- The U.S. Federal Government may negotiate a license for the use of IP developed by a registered participant in the prize competition.

IX. Point of Contact

The U.S. Army xTech Program Office Office of the Deputy Assistant Secretary of the Army, Research and Technology Email: <u>usarmy.xtech@army.mil</u> Website: <u>https://www.xtech.army.mil/</u>

Appendix A – Problem Statement Descriptions

Challenge Summary: A software-based AI-powered fusion engine that (1) ingests heterogeneous, disaggregated, noisy data sources (e.g., radar, cell phone activity, full motion video, intercepted radio transmissions, satellite imagery), (2) discovers the most valuable information across multiple data sets in near-real time, and (3) allows for dissemination of outputs in an object-ready format.

Problem Statement: Modern military operations generate a massive volume of data that is captured through multiple, disparate platforms with varying levels of frequency (from near-real-time feeds to those updated once every 24 hours). Personnel must also make sense of a diverse set of data inputs — from sensor feeds, satellite imagery, and chat logs, to intercepted communications. Meanwhile, U.S. forces operate in environments where speed, scale, and ambiguity define the decision-making space.

Currently, analysts are responsible for the validation, analysis and assessment of this data into actionable insights that are timely, clear, and relevant. The processes are manual, often siloed, and take a significant amount of time to package into a product that can be used by leadership to make informed decisions.

What's needed is a tactical-level AI solution that can identify the most valuable information across these data sets, validate the data based on relevance of the source (situation, time, place, and position), and shorten the overall timeline associated with analysis and assessment. Analysts working in this space need a solution that will enable them to understand the tactical space faster than the adversary and increase the speed and accuracy of Army decision-making.

Solution: A solution capable of real-time or near-real-time fusion of noisy, unstructured, and multimodal data sources based on tactical priorities. The solution should enable analysts and decision-makers to take action in a timely manner. Last, the tool should:

- Handle fragmented, incomplete, and competing data streams without prior labeling
- Find pertinent data based on user-defined parameters
- Include source information in the data labels
- Validate the data and communicate a confidence level (high, moderate, low)
- Identify and evaluate data (hallucinations, biases, and inaccuracies)
- Use explainable AI models
- Identify additional information needed to increase confidence levels
- Identify key patterns or correlations
- Highlight anomalous or emergent activity