

The Army xTech and SBIR | STTR Programs are designed to empower innovators to partner with the Army.

Jess Stillman Program Manager







# Army xTech and SBIR | STTR fund innovative ideas that solve real-world problems—for commercial use and national defense.



**Discovering novel technology solutions** through prize competitions.



**Transitioning small business innovation** into practical applications for Soldiers.







### **Program Overview**

"The only way of discovering the limits of the possible is to venture a little way past them into the impossible."

– Arthur C. Clarke



# The xTech program works to lower barriers for industry to work with the Army



**Serves as a friendly front door** with low barrier of entry



**Explores innovative industry ideas** to discover what is possible



**Awards 100% expendable cash prizes** to offset participation cost



Provides stakeholder feedback, education, mentorship and networking

Firms that have won an xTech competition have satisfied competition requirements for follow-on contract awards

Target Audience (based on individual competition)

- Academic institutions
- Investors
- Startups and entrepreneurs
- International entities
- > Small and large businesses
- > Anyone but federal employees





## xTech Program Values: Expanding the Funnel of Innovative Ideas into the Army Science and Technology Ecosystem



#### **TIMELINESS**

Maximize initial cashflow for participants; Provide valuable feedback for continuous improvement.



#### **TRANSPARENCY**

Clear alignment with Army and DoD needs; Build confidence in the system.



#### **PARTNERSHIP**

Technology alignment with Army priorities; Integration of all stakeholders into the feedback loop.

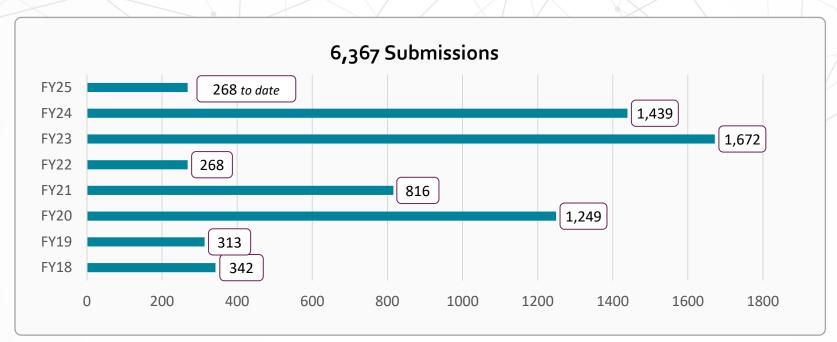


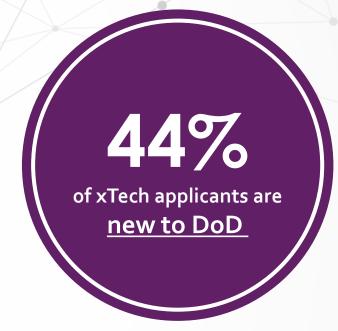
#### **ENGAGEMENT**

Connecting nontraditional entities with Army and DoD experts in their fields.



## xTech has been delivering results since 2018, here is a "by the numbers" showing the Army's commitment to innovation.





- **39** competitions
- **21** accelerator cohorts
- **3,969** evaluator sign ups across competitions
- **15,658** comments provided to applicants
- **41,925** completed evaluations







## xTech benefits include short entry applications and increasing prizes, feedback and exposure as applicants progress

#### Sample Competition Structure

### Part 1: Concept White Paper

Short concept white paper outlining the technology, potential impacts, scientific viability, their approach and dual-use applications.



Up to 50 participants move forward



\$5K cash prize

### Part 2: Technology Pitches

15-minute pitch followed by 10-minute Q&A with Army and DoD experts.



Up to 20 finalists move forward



\$15K cash prize

### Accelerator Programming

The xTech Accelerator provides finalists an opportunity to receive educational programming, mentorship, and strategic exposure.

### Part 3: Finals Event / Demonstration

A live public proof-of-concept demonstration and presentation on their transition plans to a panel of Army experts.



Up to 10 final winners of the competition selected



\$25K cash prize

### Opportunity to submit a SBIR proposal

The 10 winners will have an opportunity to submit Phase I SBIR proposals.



Up to 10 participants selected



Up to \$250K Phase I SBIR or \$2M Direct to Phase II SBIR



xTech competition winners have satisfied competition requirements for followon contract awards.

- Design and structure of competition are based on the overall goals of the partner organization
- Monetary and non-monetary benefits can include:
  - ✓ Cash prizes
  - ✓ Follow-on contracts
  - √ Feedback on the technology

- ✓ Test and evaluation opportunities
- ✓ Commercial and DoD and exposure



## The xTech Accelerator is driving innovation by aligning Army business models with non-traditional industry partners through the five pillars

The accelerator is customized to address the specific needs of the competition, problem statement, and collaborating organizations.



**Educational Programming**Custom virtual weekly or biweekly webinars to fill knowledge gaps.



**Diverse Mentorship** 

2-3 dedicated mentors for each team ranging from DoD and Industry.



Community Building
Relationship building with DoD
stakeholders and other companies.



**Venture Building Consulting** 

1:1 work to identify Army use cases and other key stakeholders.



**Strategic Exposure**DoD, Industry and Investment
Community.



### xTech Accelerators: Supporting Nontraditional Innovators Since 2019

21

**Accelerators** 

331

**Participants** 

300

**Army & Business Mentors** 

2,285

Mentorship hours dedicated to supporting participants

136

Stakeholder interviews conducted by participants

300

DoD proposals submitted during and post accelerators

1,819

Government contracts awarded to companies during and postaccelerator programming including Army SBIR awards \$1.1B

contract awards including follow-on SBIR awards



Metrics as of 21 October 2024



### Current and upcoming xTech opportunities



Topic(s): Various Program Executive Office (PEO) priorities

Audience: U.S. small businesses

Timeline: FEB 05 – MAR 12, 2025

Partner: JPEO A&A, PEO C<sub>3</sub>N, PEO CS&CSS, PEO Enterprise,

PEO GCS and PEO IEW&S

Follow-on: Phase I and Direct to Phase II follow on contracts

**Impact:** The competition will provide cash prizes while providing industry opportunities to engage directly with various program executive offices, gaining a better understanding of how their technology solutions can solve current needs.



Up to \$400,000 in cash prizes



Up to \$27,000,000 in follow contracts

#### Launching this month! xTechSoldier

The U.S. Army invites global businesses to pitch innovative concepts for the Next Generation Squad Weapons Fire Control Module-X. Eligible small and large businesses can earn prize money and the chance for up to \$5M in contract awards.

#### Launching in March! xTechPacific 2025

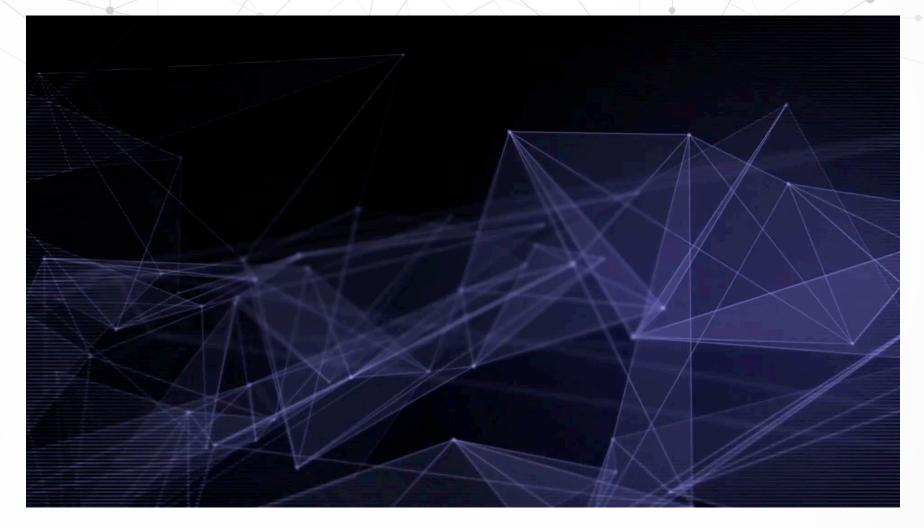
In partnership with U.S. Army Pacific Command and other key organizations, xTechPacific offers small U.S. businesses the opportunity to pitch to the DoD, win prize money, and submit an Army SBIR proposal. Finalists will compete in Hawaii and present to Army and DoD experts.

#### Launching in Spring 2025! xTechSearch 9

xTechSearch aims to integrate disruptive technologies into the Army's ecosystem. Participants receive mentorship and strategic exposure, with finalists invited to networking events to develop their solutions for Army and commercial use.



# Army xTech competition testimonials from past participants: "Integrating Innovation."





### **Program Overview**

"Innovation distinguishes between a leader and a follower." — Steve Jobs



## The Army SBIR | STTR Program works with small businesses to transition capabilities to the Army



Solicits emerging needs from Army partners



Funds research, prototyping and testing



Awards contracts to U.S. small businesses



Supports technology transition

Innovators that complete a SBIR|STTR award satisfy competition requirements for follow-on awards

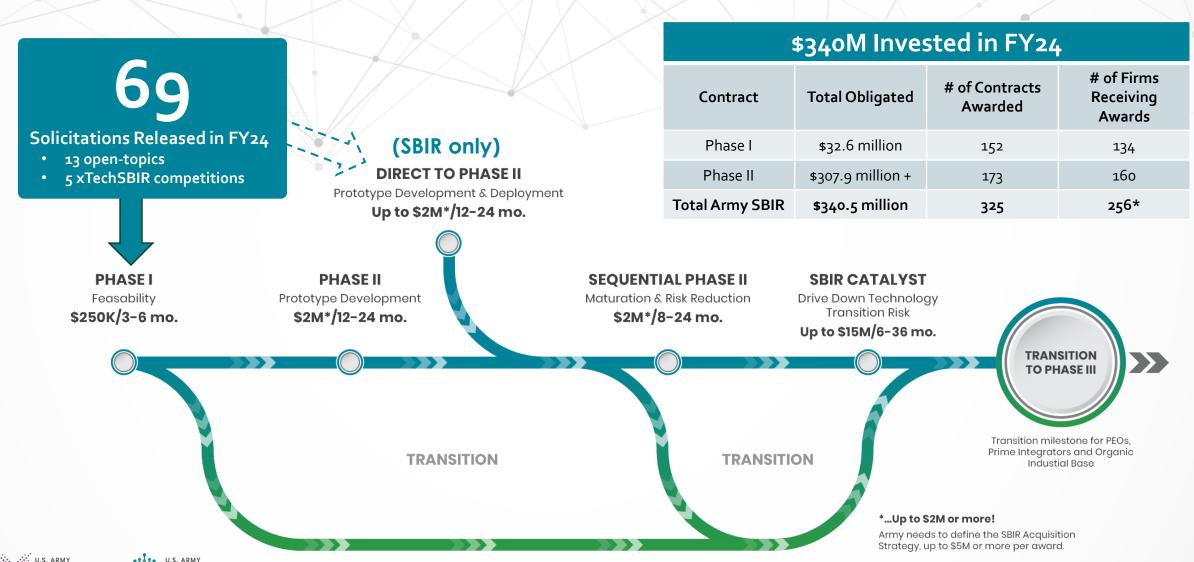
Target Audience

U.S.-based small businesses

Research institutions



## The Army SBIR | STTR Program releases solicitations monthly providing multiple entry points and pathways to transition technology



## Active Portfolio Management by Transition Broker Teams: A Structured Framework for Evaluating and Managing SBIR-Funded R&D Efforts

#### **Active Management Methodology:**

- 1. Prioritize efforts and assess risks
- 2. Regularly engage with Army stakeholders
- 3. Track the overall health of the portfolio

#### **TBT Members**

- ✓ Influence topics
- Review and recommend proposals for award
- ✓ Assist performers in the portfolio

#### **Industry Benefits**

- ✓ Tailored Support and Resources
- Faster Contracting and Funding
- Emphasis on Transition and Commercialization

Five SBIR STTR technology ecosystems identified with rapid innovation and market growth in the private sector:

#### AI/ML



Automated Detection

Biometrics

Synthetic Data

Training Algorithm

#### **Energy Resiliency**



Adv. Energy Generation

Energy Storage

Micro-grid

Transp. Power Systems

Efficient Industry Tech.

### Immersive & Wearables



AR/VR/MR Solutions
Physiological Monitoring
Energy Harvesting
C5ISR

#### Sensors



Detection

Real-Time Data Fusion

Data Distillation

**Targeting** 

## Contested Logistics & Sustainment



Supply Chain
Demand Reduction
Predictive Maintenance

Communications



### Collaborative Innovation: Army STTR Program Partners Small Businesses and Research Institutions to Address Critical Needs

Three Phased Approach with Two Key Differences from SBIR



Requires small businesses to

partner with a federally funded or
qualified non-profit research
institution



Aims to transition technology from research institutions to the marketplace

80

Total Solicitations
Released
(including 13 open-topics)

80

Total New Contracts
Awarded

#### \$47.2M invested in in FY24

Contract	Total Obligated	# of Contracts Awarded	# of Firms Receiving Awards
Phase I	\$9.4 million	48	44
Phase II	\$37.8 million	32	30
Total Army SBIR	\$47.2 million	80	69*



## Army SBIR and Army Programs: "a Win-Win" for Army customers and industry partners.



## Enhancing Collaboration with Small and Nontraditional Businesses: Army xTech & SBIR | STTR Programs



**Improved Processes:** Enhance processes and responsiveness to create a positive user experience.



**Monthly Topic Releases:** Release topics monthly to mirror evolving technology challenges within the Army.



Commercial Success & Government Collaboration: Partner with companies who can succeed in commercial industry as well as with the government.



**SBIR Contracting Center of Excellence (CCoE):** Streamline contracting to increase time to award and create a better experience for small businesses.



Access & Flexibility: Improve access to the Army, problems and data, while reducing restrictive requirements.



Transition to Larger Opportunities: Facilitate smooth transitions to Army programs or additional R&D funding opportunities.

Partner with the Army for innovation and impact in both commercial and government sectors.



### Army innovation requires both novel technologies and transformation of how we do business.

The Army SBIR|STTR Program established the **Army SBIR Contracting Center** of Excellence in 2022 to innovate how we award contracts to industry faster, easier and more agile than ever.



#### **APPROACH**

The Army established the centralized Army SBIR CCoE at Army Headquarters to focus solely on small-business needs, while fully leveraging acquisition reform initiatives.



#### **BENEFITS**

- Maximizes flexibility and agility for a streamlined award process.
- Specializes in small-business contracting needs.
- Consolidates SBIR awards, synchronizing procurement, obligations and metrics.



Reduces R&D contract execution times by an order of magnitude compared to the previous timeline.



Reduces operational complexity and deployment barriers with transition-focused Phase I and Phase II contracts.

The Army is a better business partner by optimizing processes to innovate at the speed of technology, improve responsiveness and create a positive user experience.



## Support Army innovation and join the Army xTech and SBIR | STTR Programs as an innovator, investor or integrator.



#### **Join Competitions**

Showcase innovations in xTech challenges



#### **Apply for Funding**

Compete for SBIR Contracts



#### **Collaborate**

Work with Army mentors and experts



#### Commercialize

Bring technologies to market



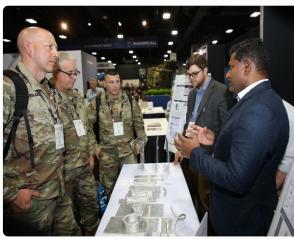
#### **Solve Needs**

Develop solutions for Army challenges











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### Army transition partner testimonials for xTech and SBIR | STTR.

"Blending both prize awards and OTA agreements into a single pitch competition using proven xTech processes gives the Army a novel way to attract new companies, while addressing technology gaps in a mutually beneficial partnership."

#### Mike Karaki

DEVCOM Ground Vehicle Systems Center

Source: xTech Innovation Combine competition

"The Army SBIR portfolios, including AI/ML, enabled us to collaborate over a variety of topics. We have worked together to formulate solicitations, execute programs and leverage technologies from small businesses."

#### Karen Amabile

JPEO A&A Research and Development Program Manager

Source: JPEO A&A's munitions manufacturing efforts drive \$48M in Army SBIR funding

"PEO C<sub>3</sub>T's vision is for these companies to transition their solutions... Success would save the Army customer a tremendous amount of time...and could potentially save the government and taxpayer millions of dollars."

#### Dr. Sayeed Hasan

PEO C<sub>3</sub>T Project Manager Tactical Radios

Source: xTech Program matches small businesses with Army transition partners

