



PRECISION LAUNCHED

Spc. Collin Petrillo, 87th Combat Sustainment Support Battalion, fires an M320 grenade launcher during a qualification event at Fort Stewart, Georgia, Nov. 8, 2023. The Precision Grenadier System is intended to give Soldiers the capability to destroy targets with increased lethality and precision compared with legacy grenade launchers. (Photo by Spc. Duke Edwards, 50th Public Affairs Detachment)

SHAKING THE TREE

After other methods fail, xTech helps PM Soldier Lethality find potential industry partners for the Precision Grenadier System.

by Andrew H. Cline, Maj. Eric B. Forsgren and Travis T. James

In the dynamic landscape of defense innovation, bridging the divide between government requirements and industry's readiness to invest can be a Herculean task. This challenge becomes particularly pronounced when dealing with weapon systems lacking commercial market application or appeal, and when small businesses grapple with financial constraints despite their innovative potential.

Program Manager Soldier Lethality (PM SL), within the Program Executive Office for Soldier, has not been immune to this dilemma. The Precision Grenadier System (PGS) program, which lacks commercial market opportunities and has yet to secure congressional budget approval, faced disinterest from industry. Year after year, market surveys yielded the same results: limited defense industry partners offering untested solutions to address some of the program's requirements.

However, PM SL was determined to kindle industry interest, solicit invaluable insights on PGS requirements, and foster robust competition for fiscal year 2026. To turn this vision into a reality, PM SL recognized the imperative of initiating research and development efforts in fiscal year 2023, positioning the government for a genuine competition by fiscal year 2026.

The solution lay in the prize authority outlined in 10 U.S.C. § 4025, which would offset contractors' investment risks in the PGS program by progressively awarding prize money for each successful phase—phase one, white papers; phase two, technical presentations; and phase three, demonstrations. Notably, the barriers to entry were low, requiring only a five-page white paper describing the proposed PGS solution.

The government's historical challenge to fund innovative programs, such as the PGS, left industry partners disenchanted and disinclined to invest further. PM SL sought to rekindle industry enthusiasm and trust and to foster stronger relationships to overcome this impediment. The team faced resource constraints and needed more time for major capability acquisition- or middle-tier authority-based development efforts. Nevertheless, they were steadfast in their commitment to persuade the industry to invest in and develop PGS prototypes, ensuring readiness for a robust PGS competition by fiscal year 2026. Despite limited initial funds, PM SL was eager to compensate vendors for demonstrations, through traditional procurement mechanisms, based on the Federal Acquisition Regulation (FAR), other transaction authority or Procurement for Experimental Purposes (10 U.S.C. § 4023), were akin to product delivery to the government rather than a mere demonstration.

PM SL ventured into unfamiliar territory by delving into its acquisition resources and authorities. Discovering the prize authority under 10 U.S.C. § 4025, which recognizes outstanding achievements in basic, advanced and applied research, technology development and prototype development for DOD, became a catalyst for the PGS program. PM SL joined forces with xTech to navigate this transformative journey.

XTech is a platform shepherded by Matthew Willis, Ph.D., director of the Army Applied Small Business Innovative Research (SBIR) and prize competitions in the Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology. XTech was eager to partner with PM SL to transition competitions into real programs that could enhance defense capabilities, and swiftly became an essential collaborator in this innovation journey.

CATALYZING INNOVATION

The PM SL team's journey toward revitalizing the PGS program started with an initial meeting with the xTech team on April 19, 2023. On June 14, 2023, xTech officially announced the PGS competition. Proposals were due by July 12, 2023. To disseminate the competition announcements, the xTech team adopted both traditional and nontraditional methods. In addition to the conventional announcements on SAM.gov, xTech leveraged the power of social media platforms like Facebook, custom YouTube videos and LinkedIn.

The results were nothing short of extraordinary. The competition announcement resonated with industry stakeholders, as 15 vendors enthusiastically responded to the call. The team quickly selected the first five winners, each receiving \$15,000, on Aug. 14, 2023. One of the most remarkable aspects of the xTech approach was its ability to minimize entry barriers, making it a welcoming environment for vendors unfamiliar with government business intricacies. Unlike traditional processes with voluminous solicitations, complex evaluation criteria and numerous FAR and Defense Federal Acquisition Regulation Supplement (DFARS) requirements, the xTech process was expedited through the guidance and resources it provided. A diverse and efficient evaluation team boasting multidisciplinary backgrounds (engineers for weapons, fire control, ammunition and representatives from the requirements community) determined and announced the awardees in just 33 days. In contrast, a traditional approach would have taken an estimated eight months or longer, involving a significant amount of paperwork, reviews and approvals from legal and management experts.

Furthermore, the xTech competition process did not necessitate contract vehicles for awarding prize money. Awardees needed an active commercial and government entity code and a valid checking account. Upon submitting their invoices for the prize money, funds were directly deposited into their accounts immediately obligating and dispersing funds, facilitating a seamless progression in the competition.

PROGRESSING IN PHASES

The initial five awardees accepted the invitation to participate in Phase 2 of the competition. Phase 2 required vendors to verbally present their proposed PGS solutions, showcasing how they intended to develop their systems. On Aug. 29-30, 2023, the five companies presented their PGS solutions. Once again, xTech's expertise and tools played a pivotal role as the panel of judges efficiently evaluated the presentations, enabling them to select

LESSONS LEARNED

As the partnership between PM SL and xTech continues to evolve, several critical lessons have emerged:

- **Swift competition:** The xTech competition process is markedly quicker than traditional acquisition methods, enabling rapid progress through phases.
- **Level playing field:** The xTech approach creates a level playing field, permitting small vendors to compete on equal footing alongside larger vendors for the prize money.
- **Vendor investment:** It's important to note that vendors must allocate resources to participate in the competition and develop prototypes for the final demonstration. The prize money, while a significant incentive, only covers some of the associated costs.
- **Disadvantaged small vendors:** Small vendors, often constrained by limited internal funding, may require additional support to fully unleash their innovation potential.
- **Prize authority:** The 10 U.S.C. § 4025 prize authority, in collaboration with xTech, has emerged as a powerful tool for promoting innovation and collaboration within DOD.
- **Utilizing nontraditional methods:** XTech's innovative use of social media and other nontraditional platforms has proven effective in reaching a more comprehensive array of vendors and attracting their attention.
- **Objective evaluation:** XTech's proprietary software has demonstrated its value by removing biases and normalizing results, providing an objective assessment process that expedites decision-making.

the Phase 2 awardees on Aug. 30, 2023, following the final presentation.

XTech employed proprietary software to ensure fairness and transparency in the evaluation process. This streamlined approach, which could eliminate biases and normalize results, rendered the competition process as objective and efficient. In addition, the vendors received feedback from the judges, as part of the evaluation process, to help them improve future proposal submissions.

The winners of Phase 2, each receiving a \$300,000 prize, were announced on Sept. 7, 2023, marking yet another milestone in this transformative journey.

For Phase 3, the winners from Phase 2 will get an opportunity to demonstrate their PGS final proof-of-concept solution to the government. The winner of Phase 3 potentially could be awarded up to \$2 million in a follow-on contract or agreement.

Vendors answered the request for feedback regarding the xTech PGS competition. This was especially true for small businesses, which enthusiastically encouraged the Army to continue leveraging this authority. The xTech platform allowed and incentivized them to invest in technologies, aligning with PM SL's original goals. Moreover, vendors praised the competition's ease of entry, relieving them of the need to invest in specialized proposal-writing teams familiar with navigating the complex FAR and DFARS requirements and procedures.

The results were nothing short of extraordinary.

CONCLUSION

The partnership between PM SL and xTech has ushered in a new era of innovation within DOD. By harnessing the power of the 10 U.S.C. § 4025 prize authority and working closely with xTech, PM SL has successfully ignited industry interest in the PGS program, breaking down the barriers that often stifle innovation in the defense sector.

This collaboration has streamlined the competition process, as well as advancements in unique technologies, allowing small vendors to compete alongside their larger counterparts and fostering an environment where groundbreaking technologies can thrive. As the partnership between PM SL and xTech continues to evolve, it stands as a model for future defense innovation efforts. By embracing nontraditional methods, eliminating biases and simplifying the entry process, this partnership promises a brighter, more collaborative future for the defense industry.

As the defense community looks toward the future, the success of the PM SL-xTech collaboration serves as a testament to what can be achieved when government entities and innovative platforms join forces. The lessons learned from this partnership will undoubtedly inform best practices for future endeavors, guiding program executive offices and their workforces toward more efficient, innovative and collaborative approaches to meeting DOD's evolving needs.

In an era marked by rapidly advancing technology and complex security challenges, leveraging innovative approaches and fostering collaboration with industry partners is critical. Through the xTech Competitive Platform and the 10 U.S.C. § 4025 prize authority, PM SL has connected with nontraditional defense industry and

laid the groundwork for a more resilient and responsive defense ecosystem. This, in turn, will play a pivotal role in ensuring the readiness and effectiveness of our armed forces, both now and in the future.

For more information, go to <https://www.xtech.army.mil/competition/xtechsoldier-lethality>.

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