Engineer Research and Development Center
Geotechnical Structures Laboratory (GSL) Blast Overpressure Protection
Commercial Solutions Openings (CSO)
Solicitation Number: W912HZ26SC001

SECTION A: INTRODUCTION

The Engineer Research and Development Center (ERDC) is issuing a Commercial Solutions Opening (CSO) authorized by the Department of Defense (DoD) Class Deviation 2022-O0007. Under a CSO, the ERDC may competitively award proposals received in response to a general solicitation, similar to a Broad Agency Announcement (BAA), to acquire innovative commercial products, technologies, or services based on a review of solutions by scientific, technological, or other subject matter expert peers within the ERDC. Under this CSO, all products, technologies, and services shall be treated as commercial items; products, technologies, and services do not have to be "commercially available" to be submitted in response to this solicitation. If the solution meets the requirements of the regulation, the solution is *treated* as commercial whereby the Contracting Officer will utilize commercial procedures to develop and execute the resultant award.

Problem Statement:
Military personnel may be exposed to blast overpressure during training and operational activities, particularly within enclosed or semi-enclosed structures. This type of exposure has been associated with both acute and long-term health effects, including traumatic brain injuries (TBI).

Project Objective:
The ERDC seeks to obtain innovative solutions that can reduce the hazards of blast overpressure within buildings and protective structures. The intent is to identify external concepts or technologies with potential for rapid prototyping and evaluation in a blast testing environment. Addressing this enhanced protective infrastructure can help reduce risk and support the long-term health and safety of soldiers.

Background and Operational Scenarios:
Military personnel are routinely exposed to blast overpressure during training and operational activities, which presents serious health and safety risks. The U.S. Army Engineer Research and Development Center, Geotechnical and Structures Laboratory (ERDC GSL), is seeking innovative material and structural retrofit solutions to mitigate blast overpressure effects within enclosed environments such as rooms, facilities, or buildings.

Military training increasingly relies on realistic, immersive scenarios conducted within enclosed or semi-enclosed structures such as training facilities. In operational environments, soldiers shelter from adversary attack within enclosed or semi-enclosed structures such bunkers and buildings. In both training and operational environments, personnel may be exposed to blast overpressure, a rapid rise in air pressure caused by explosive events. Exposure to blast has been associated with both acute and long-term health effects, including traumatic brain injuries (TBI), auditory damage, and cognitive impairment. The relationship between blast exposure and health outcomes is not well understood.

Enclosed and semi-enclosed structures can amplify, reflect, and/or alter blast waves. Blast exposure in enclosed and semi-enclosed structures has been linked to known health outcomes of TBI. The goal is to reduce blast exposure inside structures without compromising mission

realism in training, facility functionality in operations, and logistical burden in operations. Retrofit solutions must therefore balance effectiveness with ease of installation, scalability, and compatibility with existing military construction standards.

This request for solution briefs is a two-step project announcement:

Step 1: This announcement is being issued to solicit solution briefs ONLY. The purpose of the solution brief submissions is to identify potential partners that may have promising solutions relative to the problem statement above. An offeror that describes a promising solution may be asked questions regarding their solution via email or requested to virtually attend a solution pitch with the Government project team. The Government reserves the right to move straight to Request for Proposal (RFP) based on solution brief only. Further, an offeror's inability to accept an invitation to provide a solution pitch does not preclude them from receiving an RFP.

Step 2: If a solution is selected and funding is available, the Government will issue an RFP. If a solution is selected and funding is not available, the Government may request that the solution be maintained in the electronic library for consideration and subsequent funding availability up to three years after submission. If a solution is not selected, the offeror will be notified generally within 30 days of submission.

SECTION B: SOLUTION BRIEF PREPARATION AND SUBMISSION

NOTE: The Government reserves the right to not select a solution if it omits any of the required information below.

DO NOT INCLUDE CLASSIFIED OR PROPRIETARY INFORMATION

1. **GENERAL FORMATTING REQUIREMENTS:** Solution briefs shall be **no more than three pages** and submitted electronically. All submissions must be clear, legible, and conform to the following general formatting guidelines:
   - Paper: Pages shall be 8.5 x 11 inches, single sided, with each page numbered "X of Y pages."
   - Margins: Minimum of 1 inch on all sides.
   - Type Font: 12 point Times New Roman, single spaced.
   - Acronyms: Spell out all acronyms the first time they are used. One page of the proposal body is allocated to spell out acronyms, abbreviations and symbols.
   - Language: English.
   - Electronic file format: PDF, compatible with current Adobe Acrobat Reader. File size less than 20 MB.
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2. **TECHNICAL REQUIREMENTS**:
   - This effort seeks modular, adaptable protective solutions suitable for various operational structures such as bunkers, dug-in fighting positions, trenches, and training environments like shoot houses. Proposed solutions should be flexible enough to perform in a range of scenarios, focusing on survivability, rapid installation, and minimal interference with operational functionality.

   The initial test scenario will involve a basic bunker structure with the following dimensions:
   - 8.5 ft wide x 7 ft high x 15 ft long

- Two functional exits must remain accessible.
- Solutions may be applied to any part of the structure (e.g., inside wall, ceiling, exterior, or around entrances), provided personnel can still enter/exit without obstruction.

At a later stage, submitted prototype solutions will be tested using a standard evaluation approach aligned to each scenario. Solutions that demonstrate versatility, modularity, and protective performance across multiple environments will be prioritized.

- The proposed solution shall not simply repeat the problem statement but rather provide convincing evidence that the proposed solution or potential capability fulfill a Government requirement, close capability gaps, or provide technological advancements. The following examples of convincing evidence are strongly encouraged –
  - Authentic company URL or web address. Note: The Government may elect to use the information provided as part of its continuous market research. However, the government is not obligated to use the URL or web address as part of its evaluation process to determine the Selectee or Awardee.
  - Summary of product commercialization currently used in the open market.
  - Pictures, diagrams, models, or figures to depict the essence of the proposed solution.
- Describe how the proposed solution is "innovative" and the feasibility of the solution solving an agency challenge, including examples demonstrating possible application of the proposed innovation or existing use of the solution in the commercial marketplace. "Innovative" is defined as any technology, process, or method, including research and development, that is new as of the date of submission of a proposal, or any application that is new as of the date of submission of a proposal of a technology, process, or method existing as of such date.

3. **ROUGH ORDER MAGNITUDE (ROM)** – Estimated price ONLY. Further details will be requested for full proposal if selected.

4. **SUBMISSION**

SAM Registration: It is critical that offerors are registered in the System for Award Management (SAM), https://sam.gov/ ; offerors will not be eligible for an award if not registered in SAM. Additionally, entities are required to be registered to receive contracts (not just grants) and the address from the solution must match the registration information in SAM.

For a solution to be evaluated for possible selection, it must be submitted via the electronic form; submissions will be accepted through **12PM EST, 22 December 2025.** A hardcopy will not be accepted. Offerors may submit solution amendments any time prior to the deadline. When a submission is made, a confirmation email will be sent by the ERDCWERX portal to the email address supplied in the submission form.

Please ensure that the email address listed in your proposal is current and accurate. Please contact us by emailing info@erdcwerx.org to share details of changed email address and/or company points of contact after proposal submission.

Due to the large amount of expected interest in this CSO, and to maintain a written record of questions, the ERDC will be accepting individual questions through the ERDCWERX portal by using their Question Submission Form. The questions and answers will be published and regularly updated on the ERDCWERX Frequently Asked Questions (FAQ) page.

5. SELECTION

Solutions received in response to this announcement will be selected based upon an initial review of how innovative and feasible the solution is at solving an agency challenge, the potential to enhance the mission effectiveness of the agency, and funding availability.
If a solution is selected and funding is available, an RFP will be issued by the Contracting Officer, which shall include a request for further details or documents prior to award (i.e., contractor self-developed Performance Work Statement (PWS) or Scope of Work (SOW), delivery details… etc.). A PWS is similar to a Service Level Agreement (SLA) used in the commercial marketplace. The PWS shall detail the proposed work to be completed during the period of performance, deliverables, etc. As many solutions will likely be performed/provided at military installations, the Government will provide the applicable security requirements to be included in any award. As appropriate, the Government may engage in a collaborative process to develop the PWS/SOW, deliverables, data rights, and necessary terms and conditions for the award.
Issuance of an RFP does not guarantee award. Award will be made once a proposal is accepted based on the proposal evaluation criteria in SECTION C.
The government reserves the right to select none of the submissions.

SECTION C: PROPOSAL EVALUATION

Proposals received in response to an RFP will be evaluated in accordance with the following evaluation criteria by scientific, technological, and/or other subject matter experts:

- **Technical requirements** will assess how innovative the solution is (as defined in this announcement) and the feasibility of the solution solving the agency's challenges.
- **Importance to agency programs** will assess the solution's potential to enhance the mission effectiveness of the agency.
- **Funds availability** will assess the availability of funding to procure the solution.
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Price Reasonableness Determination: Price shall be considered to the extent appropriate, but at a minimum, the Contracting Officer will use market research as the primary method to determine that the price is fair and reasonable. The Government may elect to use external market research in the evaluation of the proposal. The ERDC must determine the price fair and reasonable prior to award using the procedures at DFARS subpart 212.209. In some circumstances, the Contracting Officer may request information from the offeror regarding recent purchase prices paid by the Government and/or commercial customers for the same or similar commercial items.

SECTION D: AWARD

All resultant contracts will be firm-fixed price. All items, technologies, and services (including research and development) procured via this CSO are treated as commercial. ERDC is conducting this CSO on a full and open basis and intends to award contracts in accordance with FAR part 12 and the FAR part that is deemed most appropriate for the solution proposed (i.e., FAR part 13, 15, and/or 35).

FAR / DFAR clauses will be integrated into contracts on a case-by-case basis based on proposed scope.

Additional terms and conditions may be required as circumstances necessitate; examples of such would be data rights, security, R&D, educational institutions, etc.

The government does not plan to engage in the debrief process outlined in FAR part 15 but will provide feedback to unsuccessful offerors as appropriate and at its discretion.

Award may be made using any appropriate vehicle (e.g., FAR-based contracts and Other Transactions) in accordance with applicable authorities that are effective at the time of the award.