Program Announcement

Crystal Palace

Microsystems Technology Office

DARPA-PA-26-03

December 4, 2025

OVERVIEW INFORMATION:

- **Federal Agency Name:** Defense Advanced Research Projects Agency (DARPA), Microsystems Technology Office (MTO)
- **Funding Opportunity Title:** Crystal Palace
- **Announcement Type:** Initial announcement
- **Funding Opportunity Number:** DARPA-PA-26-03
- **Assistance Listing Number:** Not applicable
- **Dates/Time: All Times are Eastern Time Zone (ET)**
  - Posting Date: December 4, 2025
  - Proposers Day: December 5, 2025
  - Proposal Abstract Due Date: December 19, 2025, at 1:00 p.m.
  - Question Submittal Closed: January 16, 2026, at 5:00 p.m.
  - Intent to Propose Deadline: January 16, 2026, at 5:00 p.m.
  - Proposal Due Date: January 30, 2026, at 1:00 p.m.
  - Estimated Oral Presentation Dates: February 23 – February 27, 2026
- **Anticipated Individual Awards:** Multiple awards are anticipated
- **Types of Instruments That May Be Awarded:** Other Transaction for Research under 10 U.S.C. § 4021
- **NAICS Code:** 541713
- **Agency Contact:**

  The PA Coordinator for this effort may be reached at:

  Crystal_Palace@darpa.mil
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  ATTN: DARPA-PA-26-03
  675 North Randolph Street
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Program Announcement
DARPA-PA-26-03

Crystal Palace
Defense Advanced Research Projects Agency (DARPA)
Microsystems Technology Office (MTO)

Section I: Funding Opportunity Description

The Defense Advanced Research Projects Agency (DARPA) is soliciting innovative proposals in the area of revolutionizing single crystal inorganic material growth for microsystems. Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

A. Background

Advanced inorganic materials in microsystem devices enable critical capabilities such as next-generation radar and autonomous aerial vehicles. These devices depend on the precise growth of inorganic materials, including silicon, gallium arsenide, gallium nitride, and other specialized compounds. Silicon is a relatively simple material, composed of a single element type with a single crystal structure. Commercial silicon today achieves extremely high purity, with atoms perfectly arranged in a single crystal structure over a large area. Today's tools can control composition and crystallinity in simple material systems like silicon and gallium nitride. However, the trend over the last 20 years has shifted towards materials with increasing complexity, characterized by a greater variety of elements at higher percentages and more crystal structures.

This trend is driven by the fact that elemental composition and crystal structure determine material properties. Incorporating more elements into a material at high percentages in combination with new crystal structures provides additional control over the design of material properties. Furthermore, artificial intelligence (AI) and machine learning (ML) have accelerated the pace of complex material discovery and created an explosion of complex material designs. Using deep-learning models, AI/ML can predict numerous complex materials that are theoretically stable and possess desirable properties. However, these materials might remain unrealized at scale due to the significant challenges posed by their increased complexity. This is largely because increased complexity also poses significant material growth challenges, as more degrees of structural and compositional freedom must be precisely controlled. A challenge with today's growth tools is that they are limited to global parameter control, such as adjusting temperature, pressure, and flow rate in a macroscale reaction chamber (10s to 100s cm dimensions), while the processes that drive material growth happen locally at the nanoscale (~1 nm). With increasing material complexity, the need for precise control of these local processes becomes even more critical, and today's tools with global controls drive increasingly long timelines for the realization of uniform complex materials. The inability to produce high-quality, single crystal complex materials at a relevant scale can significantly delay future microsystem innovations.

Crystal Palace aims to accelerate microsystem innovation and create new tools and techniques to enable the rapid development of single crystal complex inorganic materials at scale, ensuring that we meet the demands of future DoW systems. The future of material growth capabilities must evolve in tandem with advancements in AI's ability to design increasingly complex materials. The Crystal Palace program is

designed to serve as a foundation for this evolution, bridging the gap between AI-driven material design and the ability to grow any combination of inorganic materials from the periodic table.

B. Program Description

The objective of Crystal Palace is to develop new tools and techniques with controls that are local and generalizable, enabling the rapid development of new complex inorganic materials at single crystal quality and at a relevant scale. It is anticipated that these tools and techniques will be able to locally control transport and reaction for material growth. Through novel local control, Crystal Palace will make new complex inorganic single crystal materials with breakthrough properties for the DoW. Materials to be grown in this program will be proposer defined, but proposers are expected to justify their choices based upon anticipated substantial improvement over state-of-the-art material properties and DoW usefulness. Crystal Palace is not focused on computationally discovering materials nor integrating materials into devices. Crystal Palace is specifically focused on direct growth methods for single crystal materials on a relevant substrate for microsystems, i.e., no metal substrates, no material transfer techniques, and no bulk growth. Proposals that fail to outline how all program goals and objectives as described herein will be achieved by the program milestones are not of interest.

C. Program Structure

Crystal Palace is a 36-month program with an 18-month Phase 1 and an 18-month Phase 2.

Phase 1

In Phase 1 (base), performers will prove the feasibility of controlling composition, structure, and single crystal uniformity of a complex material over a large area. Challenges in single crystal growth will be addressed through precise local control of the material growth process, while scaling up this precision over the entire substrate. This will enable the development of new high-quality complex materials at scale.

Phase 2

In Phase 2 (option), performers will demonstrate the generalizability of their controlled growth technique to rapidly synthesize multiple materials with increasing complexity. Performers will demonstrate a variety of material types and classes to ensure the generalizability of their technique. This phase requires a rapid development timeline for new high-quality complex materials at scale.

Independent Verification and Validation (IV&V)

To ensure objective assessment and reliable program execution, DARPA will utilize an Independent Verification and Validation (IV&V) team. The IV&V team, comprised of subject matter experts, will assess the program deliverables throughout the program and advise DARPA on down-select decisions and overall program progress. The IV&V team will collaborate with DARPA and performers to validate that key milestones are achieved, determine appropriate testing methods, measure key metrics, and engage with stakeholders at meetings. Performers will provide appropriate deliverables per the program schedule to the IV&V team and DARPA.

Challenge Materials

Due to the continuous discovery of new materials, DARPA may provide optional challenge opportunities in Phase 2 for performers to grow additional emerging complex materials. Specific details about these

opportunities will be shared with Phase 2 performers, as they become available. *Please note:* This information is provided for awareness only and does not constitute a solicitation for activities or associated costs under this PA.

Transition Opportunities

DARPA will host End-of-Phase events to facilitate potential technology transition. At the end of Phase 1, a Materials Fair will be held where performers will present their developed growth techniques and sample material demonstrations to DARPA and invited potential transition partners. This will provide an opportunity for performers to partner with companies interested in their technology and/or the specific materials they have grown in the program. At the end of Phase 2, a Transition Tank will be held where both performers and transition partners are once again invited for an opportunity to collaborate and solidify future partnerships beyond the Crystal Palace program.

Deliverables

By the end of Phase 1, performers will deliver:

- one new complex material uniformly fabricated at minimum 2-inch scale,
- three new complex materials demonstrated with projections on how to achieve growth at 2 inches minimum,
- a report detailing the physics, design, and operation of the tool; growth methodologies, control algorithms, and experimental data; and models, simulations, and characterization data of materials and growth, and
- a commercialization plan that outlines the transition path to mature the material growth technology into rapid adoption by the government, defense industrial base (DIB), and/or industry.

By the end of Phase 2, performers will deliver:

- four new complex materials uniformly fabricated at minimum 2-inch scale,
- an updated report including all Phase 1 items, and
- an updated commercialization plan that includes any outputs from the Materials Fair and Transition Tank events.

Metrics and Material Constraints

The program metrics and material constraints are summarized in Table 1 and Table 2 below.

Table 1. Material Constraints

New complex material (CM) [1]		**CM 1 (Phase 1)**	**CM 2 (Phase 2.1)**	**CM 3 (Phase 2.2)**	**CM 4 (Phase 2.3)**
Material complexity [2]	Elemental complexity	≥ 2 elements	≥ 3 elements	≥ 3 elements	≥ 4 elements
	Structural complexity	≥ 4 possible crystal structures	≥ 5 possible crystal structures	≥ 6 possible crystal structures	≥ 6 possible crystal structures
Material type (property) [3]		Examples: semiconductors, magnetics, piezoelectrics, dielectrics, ferroelectrics, or superconductors			
Material class (chemistry) [3]		Examples: oxides, nitrides, chalcogenides, or metals			
Material thickness [4]		≥ 20 nm			≥ 20 nm and ~ 0.5 µm [5]
Growth rate		≥ 0.1 nm/min			

1. Proposer-defined CM that has **not been previously grown as a single crystal on a ≥ 2-inch scale, has a clear target application, and is stable at room temperature**. Desired material composition and crystal structure must be pre-defined.
2. Either elemental **OR** structural complexity constraints must be met.
3. Performers must select at least two different material types and classes. Proposers may propose other material types or classes with justification.
4. Unless the desired material property can only be exhibited outside of this thickness range; in which case, performers must provide justification.
5. At the end of Phase 2, at least one CM must be demonstrated at both the thin (~ 20 nm) and thick (~ 0.5 µm) limit.

Table 2. Program Metrics

Metrics	**Phase 1 (18 months)**		**Phase 2.1 (6 months)**	**Phase 2.2 (6 months)**	**Phase 2.3 (6 months)**
Complex materials (CM)	CM 1 at ≥ 2-inch scale	CM 2,3,4 at sample scale [1]	CM 2 at ≥ 2-inch scale	CM 3 at ≥ 2-inch scale	CM 4 at ≥ 2-inch scale
Single crystal quality [2,3]	≤ 0.3°	≤ 1°	≤ 0.3°	≤ 0.3°	≤ 0.3°
Material non-uniformity [4]	± 5%	N/A	± 5%	± 5%	± 5%
Process reproducibility [5]	≥ 3	N/A	≥ 3	≥ 3	≥ 3
Material property	Proposer-defined properties [6]				

1. The CM sample-scale is 1 cm minimum to characterize structure. Sample-scale CM must be demonstrated at ≥ 2-inch scale in succeeding program phases.

2. Full width at half maximum (FWHM) of a specific X-ray diffraction (XRD) peak over a sampling point.
3. Cross-sectional transmission electron microscopy (TEM) is required to validate that the desired single crystalline structure was achieved for each CM.
4. Non-uniformity of the measured XRD peak FWHM using at least nine evenly distributed points across the sample (ratio of standard deviation to mean).
5. Number of repeated growth runs on 2-inch scale samples meeting single crystal quality and material non-uniformity metrics.
6. Based on the proposed material types at each phase, measured key material property (e.g., carrier mobility, optical bandgap, magnetic permeability, or piezoelectric coefficient) is required.

Single crystal quality from XRD is a key program metric, as indicated above; however, additional characterization, specifically to measure material composition and thickness, will be required from performers for each CM synthesized. For example, verification that the desired composition/stoichiometry was achieved must be done using techniques such as X-ray photoelectron spectroscopy (XPS), energy-dispersive X-ray spectroscopy (EDS), electron energy loss spectroscopy (EELS), or time-of-flight secondary ion mass spectroscopy (ToF-SIMS), among others. Performers are also required to report the thickness of each CM analyzed with XRD for the program metrics. Example measurement techniques that will be accepted for thickness verification include spectroscopic ellipsometry, X-ray reflectivity (XRR), profilometry techniques (i.e., across a step edge), or microscopy techniques (i.e., cross-sectional electron microscopy). In addition, optical images of the synthesized ≥ 2-inch scale samples will be required to clearly show uniformity at scale.

D. Schedule, Milestones, and Deliverables

A summary of the program schedule is presented in Figure 1. For planning and budgetary purposes, proposers should assume a program start date of June 15, 2026.

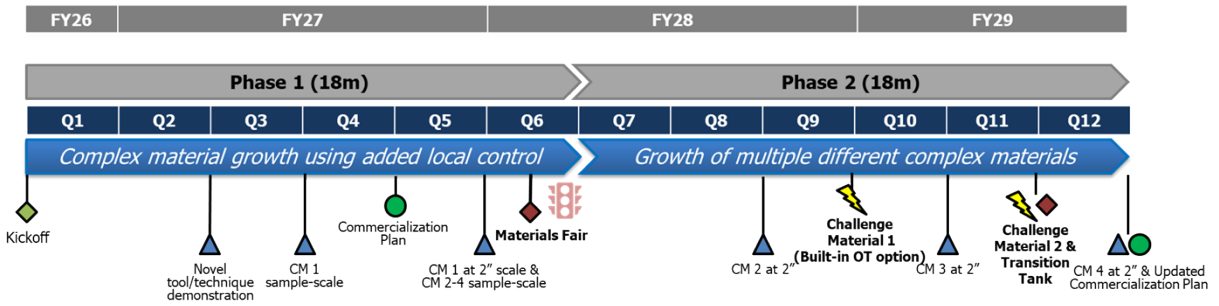

Figure 1. Program schedule

All proposals must include the following meetings and travel in the proposed schedule and costs:

- Two-day Principal Investigator (PI) meetings will be held approximately every 12 months, with locations split between the East and West Coasts of the United States. For budgeting purposes, proposers should plan for five 2-day meetings over the course of 36 months: two meetings in the Washington, D.C., area and three meetings in the San Francisco, CA, area. These meetings are the Program Kickoff, in-person PI meeting during Phase 1, End-of-Phase 1 meeting (Materials Fair), in-person PI meeting during Phase 2, and the End-of-Phase 2 meeting (Transition Tank).
- Quarterly teleconference meetings will be scheduled with the Government team for progress reporting as well as problem identification and mitigation. Proposers should also anticipate at least one site visit per phase by the DARPA Program Manager, during which they will have the opportunity to demonstrate progress towards agreed-upon milestones.

A summary of the program milestones and deliverables is presented in Table 3. Downselections may be made at any milestone.

Table 3. Program Milestones and Deliverables

Milestone		Deliverables	Month	Milestone Payment Allocation (%)
Phase 1				
1	Kickoff Meeting and Program Execution Plan	• Kickoff slide package • Detailed program execution plan	0	7.5
2	Novel tool/technique demonstration	• Demonstration report • Design review of growth tools and techniques used • Raw data and analysis illustrating appropriate material properties	6	20
3	First complex material (CM) produced at sample scale	• Raw data, analysis, and report of CM 1 at sample scale	9	20
4	Initial commercialization plan	• Report detailing specific transition path for technology maturation and government and/or industry adoption • Report clearly identifying specific issues and a plan of action to successfully demonstrate Phase 1 metrics	12	10
5	First CM produced at minimum 2-inch scale and second, third, and fourth CMs produced at sample scale	• Raw data, analysis, and report of CM 1 at 2-inch scale • Raw data, analysis, and report of CM 2-4 at sample scale • CM 1 at 2-inch scale delivered to IV&V team	15	25
6	Materials Fair	• Analysis of materials developed in Phase 1 including relevant metrics • Materials Fair presentation	16	10
7	Phase 1 final technical report	• Draft final report detailing technical progress, achievements, and lessons learned throughout Phase 1	18	7.5
Phase 2				
8	Second CM produced at minimum 2-inch scale	• Raw data, analysis, and report of CM 2 at 2-inch scale • CM 2 at 2-inch scale delivered to IV&V team	24	25

9	Third CM produced at minimum 2-inch scale	• Raw data, analysis, and report of CM 3 at 2-inch scale • CM 3 at 2-inch scale delivered to IV&V team	30	25
10	Transition Tank	• Transition Tank presentation	33	15
11	Fourth CM produced at minimum 2-inch scale and updated commercialization plan	• Raw data, analysis, and report of CM 4 at 2-inch scale • CM 4 at 2-inch scale delivered to IV&V team • Updated report detailing technology transition path, incorporating any outputs from Materials Fair and Transition Tank events	36	25
12	End of program final technical report	• Draft final report detailing technical progress, achievements, and lessons learned throughout the program	36	10

E. Government Furnished Equipment/Property/Information

No government furnished equipment, property, nor information will be provided.

F. Intellectual Property (IP)

Potential performers must outline IP assertions in the full proposal.

Section II: Evaluation Criteria

- Proposals will be evaluated using the following criteria listed in ***descending order of importance***: Overall Scientific and Technical Merit; Potential Contribution and Relevance to the DARPA Mission; and Budget and Price.
    - **Overall Scientific and Technical Merit**: The proposed technical approach is innovative, feasible, achievable, and complete. The proposed technical team has the expertise and experience to accomplish the proposed tasks. Task descriptions and associated technical elements provided are complete and in a logical sequence with all proposed deliverables clearly defined such that a final outcome that achieves the goal can be expected as a result of award. The proposal identifies major technical risks, and planned mitigation efforts are clearly defined and feasible. The advancement in material properties metrics over the state-of-the-art must justify the selection of proposed complex materials.
    - **Potential Contribution and Relevance to the DARPA Mission**: The potential contributions of the proposed effort bolster the national security technology base and support DARPA's mission to make pivotal early technology investments that create or prevent technological surprise. The proposed intellectual property restrictions (if any) will not significantly impact the Government's ability to transition the technology. Proposals directly illustrate the DARPA relevance of the proposed complex materials. Plans and capabilities to transition proposed technologies to U.S. national security applications and U.S. industry are described.
    - **Budget and Price**: The proposed solution is realistic and affordable. The budget is realistic and accurately reflects the technical goals and objectives of the solicitation and reflects a sufficient understanding of the level of effort and staffing needed to successfully accomplish the proposed technical approach. It is expected that the effort will leverage all available relevant prior research in order to obtain the maximum benefit from the available funding. For proposals that contain resource share, the proposer has provided sufficient rationale as to the appropriateness of the resource share arrangement relative to the objectives of the proposed solution (e.g., high likelihood of commercial application).
- Unless otherwise specified in this solicitation, for additional information on how DARPA reviews and evaluates proposals through the Scientific Review Process, please visit: Proposer Instructions and General Terms and Conditions.

Section III: Program Announcement Authority

- Given the program focus on dual-use technology development and commercialization, this Program Announcement (PA) will result in the award of Other Transaction (OT) for Research agreements. In alignment with 10 U.S.C. § 4021, and in consideration for Intellectual Property rights and mutually beneficial capability development, the government will consider resource share commensurate with the proposed approach for both Phase 1 and Phase 2. To the maximum extent practicable, proposers are encouraged to consider resource sharing, which generally consists of labor, materials, equipment, software, and facilities costs directly related to the project. The final amount of any proposed and recognized resource share will be based on full consideration of factors such as the team's existing tools, equipment, and staff; prior investment in the technology; commercial versus military relevance; and unusual performance risk.

- DARPA will consider a variety of proposed resource contributions to include cash and in-kind contributions, provided they are allowable, allocable, reasonable, and consistently accounted for by the Performer. The proposed resource sharing should be 1) straightforward and clearly described; and 2) include assets that will be used in the performance of the program, not just items of inherent value. It is the responsibility of the proposer to provide detailed justification for any proposed resource sharing to include **value assessments and determinations, rationale as to the relevance to the proposed scope of work, and a commitment schedule.**

- DARPA will not consider foregone profit or fee on this resultant award or other awards, previously funded government research, pre-existing IP, Internal Research and Development (IR&D) conducted prior to the OT award, or cost of money as resource share.

- Regardless of the type of resource-shared asset offered, **any resource-shared Research OT will not include payment of profit or fee to the performer.** Such a payment would skew the share ratio and would be contrary to the principles behind the purpose of resource sharing.

- To enable the rapid transition of emerging technologies, performers demonstrating successful technology under this agreement may be considered for follow-on agreements under the authority of 10 U.S.C. § 4023, Procurement for Experimental Purposes. This authority allows the government to acquire quantities of the Phase 2 integrated systems on a non-competitive basis, when necessary for (1) continued experimentation and technical evaluation; (2) assessment of operational utility in realistic environments; or (3) maintaining a limited residual operational capability for assessment purposes. The government's decision to exercise this authority will be based on demonstrated technical capability and performance of the integrated systems, feedback from transition partners and potential end-users regarding operational suitability, and availability of funding to support experimentation and evaluation. Selection for a follow-on agreement under 10 U.S.C. § 4023 is at the sole discretion of the government and is not guaranteed by successful performance under this initial agreement.

Section IV: Submission Information

- **Notification of Intent to Propose:** Proposers must provide a notification of their intent to propose no later than the due date and time stated in the Overview section, to aid in scheduling Proposal Oral Presentations. Submit your notification by email to Crystal_Palace@darpa.mil.

- **Proposer Instructions and General Terms and Conditions**: Proposer Instructions and General Terms and Conditions

- **Other Transaction agreements**: Proposer Instructions: Other Transactions

- This solicitation contains an abstract phase. Abstracts are strongly encouraged but not required. Abstracts are due no later than the due date and time stated in the Overview section. Additional instructions for abstract submission are contained within **Attachment A**.

- Full proposals include a written and an oral presentation and are due no later than the due date and time stated in the Overview section. **Attachments C, D, E, F, G, and H** contain specific instructions and templates and constitute a full proposal submission. Oral presentations will be held during the time window specified in the Overview section. Please visit Proposer Instructions and General Terms and Conditions for specific information regarding submission methods through the Broad Agency Announcement Tool (BAAT).

- DARPA is interested in whether, and to what extent, proposers are using artificial intelligence (AI) tools to contribute to Volume 1 of proposals submitted in response to DARPA solicitations. Therefore, proposers must answer the following questions on the cover sheet of Volume 1 of this solicitation:
  - Did you use AI tools to assist in preparing this proposal?
  - If yes, what tools did you employ?

  Any content in Volume 1 that utilized an AI tool to generate information, assist in technical understanding, or guide the technical work should have a citation and a corresponding reference in the Bibliography section of Volume 1. The citation should specify the tool, content, and purpose. For example, "[AI tool] was used to understand existing state of the art in manufacturing."

  NOTE – THIS INFORMATION WILL NOT BE USED FOR EVALUATION PURPOSES. Proposals will be evaluated in accordance with the Evaluation Criteria outlined in the solicitation regardless of whether AI tools were employed.

- **PA Attachments**:
  - **Attachment A**: Abstract Instructions and Template
  - **Attachment B:** Proposal Summary Slide Template
  - **Attachment C**: Proposal Instructions and Volume I Template (Technical and Management)
  - **Attachment D**: Proposal Instructions and Volume II Template (Cost)
  - **Attachment E**: Price Summary Spreadsheet
  - **Attachment F**: Other Transaction Certification Template
  - **Attachment G**: Task Description Document (TDD) Template
  - **Attachment H**: Schedule of Milestones and Payments
  - **(informational) Attachment I**: Model Other Transaction for Research

- **(informational) Attachment J**: Crystal Palace Controlled Unclassified Information (CUI) Guide signed November 25, 2025

- All technical, contractual, and administrative questions regarding this notice must be emailed to Crystal_Palace@darpa.mil. Emails sent directly to the Program Manager or any other address may result in delayed or no response. All questions must be in English and must include the name, email address, and telephone number of a point of contact. DARPA will attempt to answer all questions in a timely manner and post an FAQ list on the DARPA/MTO Opportunities page at (http://www.darpa.mil/work-with-us/opportunities). The list will be updated on an ongoing basis until two weeks prior to the proposal due date.

Section V: Special Considerations

- This announcement, stated attachments, and websites incorporated by reference constitute the entire announcement. In the event of a discrepancy between the announcement, attachments, or websites, the announcement shall take precedence.

- All responsible sources capable of satisfying the Government's needs, including both U.S. and non-U.S. sources, may submit a proposal that shall be considered by DARPA. Historically Black Colleges and Universities, Small Businesses, Small Disadvantaged Businesses and Minority Institutions are encouraged to submit proposals and join others in submitting proposals; however, no portion of this announcement will be set aside for these organizations' participation due to the impracticality of reserving discrete or severable areas of this research for exclusive competition among these entities. Non-U.S. organizations and/or individuals may participate to the extent that such participants comply with any necessary nondisclosure agreements, security regulations, export control laws, and other governing statutes applicable under the circumstances.

- As of the time of publication of this announcement, all proposal submissions are anticipated to be unclassified.

- This program is subject to **Attachment J: Crystal Palace Controlled Unclassified Information (CUI) Guide** signed November 25, 2025. All individuals accessing CUI agree to protect CUI in accordance with *DoD Instruction 5200.48 CONTROLLED UNCLASSIFIED INFORMATION (CUI)* and *NIST Special Publication 800-171 Protecting Controlled Unclassified Information in Nonfederal Systems and Organizations*.

- DARPA encourages technical solutions from all responsible sources capable of satisfying the Government's needs. To ensure fair competition across the ecosystem, DARPA prohibits contractors/performers from concurrently providing Systems Engineering Technical Assistance (SETA), Advisory and Assistance Services (A&AS), or similar support services and being a technical performer, unless the DARPA Deputy Director grants a written waiver. DARPA extends this prohibition to University-Affiliated Research Centers (UARC), Federally Funded Research and Development Centers (FFRDC), and government laboratories including National Laboratories.

- UARCs, FFRDCs, and government laboratories are prohibited from proposing as performers. UARCs, FFRDCs, and government laboratories interested in this solicitation must contact the Agency Point of Contact (POC) listed in the Overview section to discuss potential participation as part of the government team. Please note that this paragraph supersedes the "Special Eligibility Considerations for Federally Funded Research and Development Centers (FFRDCs) and Government Entities" section found at Proposer Instructions and General Terms and Conditions.

- As of the date of publication of this announcement, the Government expects that program goals as described herein either cannot be met by proposers intending to perform fundamental research. Therefore, the Government anticipates restrictions on the resultant research that will require the awardee to seek DARPA permission before publishing any information or results relative to the program. For additional information on fundamental research, please visit Proposer Instructions and General Terms and Conditions.

Proposers should indicate in their proposal whether they believe the scope of the research included in their proposal is fundamental or not. While proposers should clearly explain the intended results of their research, the Government shall have sole discretion to determine whether the proposed research shall be considered fundamental and to select the award instrument type. Appropriate language will be included in resultant awards for non-fundamental research to prescribe publication requirements and other restrictions, as appropriate. This language can be found at Proposer Instructions and General Terms and Conditions.

For certain research projects, it may be possible that although the research to be performed by a potential awardee is non-fundamental research, its proposed subawardee's effort may be fundamental research. It is also possible that the research performed by a potential awardee is fundamental research while its proposed subawardee's effort may be non-fundamental research. In all cases, it is the potential awardee's responsibility to explain in its proposal which proposed efforts are fundamental research and why the proposed efforts should be considered fundamental research.

- Effective June 30, 2025, the DARPA Fundamental Research Risk-Based Security Review (FRRBS) will be conducted on all fundamental research awards executed through non-FAR-based instruments. FRRBS is an adaptive risk management security program designed to help protect the critical technology and performer intellectual property associated with DARPA's research projects by identifying the possible vectors of undue foreign influence. The DARPA team will create risk assessments of all proposed Senior/Key Personnel selected for negotiation of a fundamental research award. The DARPA risk assessment process will be conducted separately from the DARPA scientific review process and adjudicated prior to final award. **For any proposal where fundamental research is included, proposers must submit the (1) Common Form for Biographical Sketch, and (2) Common Form for Current and Pending (Other) Support Information form for all covered individuals, in addition to the volumes and required attachments specified elsewhere in this Program Announcement. Both forms are available via the NSF website -** NSPM-33 Implementation Guidance. Please review the DARPA Fundamental Research Risk-Based Security Review Process detailed at Proposer Instructions: Other Transactions.

- The APEX Accelerators program, formerly known as the Procurement Technical Assistance Program (PTAP), focuses on building a strong, sustainable, and resilient U.S. supply chains by assisting a wide range of businesses that pursue and perform under contracts with the DoW, other federal agencies, state and local governments and with government prime contractors. See https://www.apexaccelerators.us/ for more information. APEX Accelerators helps businesses:
  - Complete registration with a wide range of databases necessary for them to participate in the government marketplace (e.g., SAM)
  - Identify which agencies and offices may need their products or services and how connect with buying agencies and offices
  - Determine whether they are ready for government opportunities and how to position themselves to succeed
  - Navigate solicitations and potential funding opportunities
  - Receive notifications of government contract opportunities on a regular basis
  - Network with buying officers, prime contractors, and other businesses
  - Resolve performance issues and prepare for audit, only if the service is needed, after receiving an award

- Project Spectrum is a nonprofit effort funded by the DoW Office of Small Business Programs to help educate the Defense Industrial Base (DIB) on compliance. Project Spectrum is vendor-neutral and available to assist businesses with their cybersecurity and compliance needs. Their mission is to improve cybersecurity readiness, resilience, and compliance for small/medium-sized businesses and the federal manufacturing supply chain. Project Spectrum events and programs will enhance awareness of cybersecurity threats within the manufacturing, research, and development, as well as knowledge-based services sectors of the industrial base. Project Spectrum will leverage strategic partnerships within and outside of the DoW to accelerate the overall cybersecurity compliance of the DIB. www.Projectspectrum.io is a web portal that will provide resources such as individualized dashboards, a marketplace, and Pilot Program to help accelerate cybersecurity compliance.

- DARPAConnect offers free resources to potential performers to help them navigate DARPA, including "Understanding DARPA Award Vehicles and Solicitations," "Making the Most of Proposers Days," and "Tips for DARPA Proposal Success." Join DARPAConnect at https://www.darpaconnect.us to leverage on-demand learning and networking resources.

- DARPA has streamlined our Announcements and is interested in your feedback on this new format. Please send any comments to DARPAsolicitations@darpa.mil.