W911NF-23-S-0010

SOURCES SOUGHT NOTICE

REQUEST FOR WHITE PAPERS

BAA TOPIC II A.2.d: ASSESSING AND DEVELOPING TECHNOLOGICAL FLUENCY FOR THE FUTURE FORCE

"Information Management Assessment for Personnel (IMAP)"

INTRODUCTION

Broad Agency Announcement (BAA) W911NF-23-S-0010 was publicized on SAM.gov and Grants.gov on 01 May 2023. This Sources Sought Notice calls for White Paper submissions in reference to the BAA Topic II A.2.d: ASSESSING AND DEVELOPING TECHNOLOGICAL FLUENCY FOR THE FUTURE FORCE. The United States Army Research Institute for the Behavioral and Social Sciences (ARI) Broad Agency announcement W911NF-23-S-0010, issued under the provisions of paragraph 6.102(d)(2) of the Federal Acquisition Regulation, provides for the competitive selection of basic and applied research and that part of development not related to the development of a specific system or hardware procurement. A Proposal submitted in response to this BAA and selected for award is considered to be the result of full and open competition and in full compliance with the provisions of Public Law 98-369, "The Competition in Contracting Act of 1984," and subsequent amendments. Funding of research and development (R&D) within ARI areas of interest will be determined by funding constraints and priorities set during each budget cycle. Any award related to the submission of a White Paper and subsequent Proposal requested by this Notice is subject to funds availability and priorities. ARI may choose not to select any new award due to unavailability of funds or other factors.

The sequence of steps leading to an award is:

1) Request for White Paper initiated by ARI through this Sources Sought Notice

2) Submission of a timely White Paper **no more than six pages in length (one page is the cover page)** to the POC for the U.S. Army Contracting Command, megan.a.deluca.civ@army.mil, and copy furnish (CC) the ARI Technical Point of Contact (TPOC), nina.j.rothstein.civ@army.mil.
3) The ARI will provide written or telephonic feedback for whitepapers submitted and will provide a response with either "encouraged to submit a proposal" or "not encouraged to submit a proposal". as per established criteria presented in Part III.

4) If the White Paper merits it, a request of a formal proposal initiated by ARI

5) Submission of a timely, formal proposal

6) Evaluation of the formal proposal as per established criteria presented in Part III

7) Award for selected proposal based on availability of funds or other factors

This sequence allows earliest determination of the potential for funding and minimizes the labor and cost associated with submission of a full proposal that has minimal probability of being selected for funding. Note that an interested Applicant **must** submit a White Paper electronically in order to be eligible to submit a formal proposal under this Notice. This Notice requires that a White Paper be submitted

electronically no later than **3 July 2025, 5:00 PM Eastern Daylight Time**. See Part V, Deadlines, for additional details. BAA W911NF-23-S-0010 allows several potential instrument types (e.g., contract, grant, cooperative agreement) to result from a successful proposal. For this Notice, the intention of the Government is to award a contract.

THOSE SUBMITTING A WHITE PAPER/PROPOSAL ARE CAUTIONED THAT ONLY A GOVERNMENT CONTRACTING OR GRANTS OFFICER CAN OBLIGATE THE GOVERNMENT THROUGH AWARD OF A LEGAL INSTRUMENT INVOLVING EXPENDITURE OF GOVERNMENT FUNDS.

This Sources Sought Notice for a Requested White Paper consists of seven parts as follows:

- Part I: Research and Development Interests of the Requested White Paper
- Part II: Preparation and Submission
- Part III: Evaluation Criteria
- Part IV: Feedback
- Part V: Deadlines
- Part VI: Inquiries
- Part VII: References

ACC (APG) RTP Agency Point of Contact:

The POC for the US Army Contracting Command (Aberdeen Proving Ground) Research Triangle Park Division is: Ms. Megan Deluca, (919) 541-4682, megan.a.deluca.civ@army.mil.

ARI Agency Point of Contact:

The ARI POC for technical matters for this White Paper topic is: Dr. Nina Rothstein, (703) 383-4874, nina.j.rothstein.civ@army.mil.

I. RESEARCH AND DEVELOPMENT INTERESTS OF THE REQUESTED WHITE PAPER:
The United States Army Research Institute for the Behavioral and Social Sciences is the Army's lead agency for the conduct of research, development, and analyses for Army readiness and performance via research advances and applications of the behavioral and social sciences that address personnel, organization, training, and leader development issues. ARI contracts with educational institutions, non-profit organizations, and private industry for research and development (R&D) in different areas, including the areas specifically identified in Section II - A W911NF-23-S-0010. Efforts funded under this White Paper request will only include Applied Research and/or Advanced Technology Development. Applied Research provides a systematic expansion and application of knowledge to design and develop useful strategies, techniques, methods, tests, or measures that provide the means to meet a recognized and specific Army need. Applied Research precedes system specific technology investigations or development, but it should have a high potential to transition into the Advanced Technology Development (ATD) Program.

The ARI ATD Program includes the development of technologies, components, or prototypes that can be tested in field experiments and/or simulated environments. Projects in this category have a direct relevance to identified military needs. These projects should demonstrate the general military utility or cost reduction potential of technology in the areas of personnel selection, assignment, and retention; training strategies and techniques; leader education and development; performance measurement; and team and inter-organizational mission effectiveness. These projects should be focused on a more direct operational benefit and if successful, the technology should be available for transition.

This Sources Sought Notice specifically addresses the following research area:

WHITE PAPER TOPIC: Information Management Assessment for Personnel (IMAP)

The modern operational environment is characterized by an unprecedented volume of information. Soldiers are constantly bombarded with data from diverse sources, ranging from traditional intelligence reports to social media feeds and sensor networks. The ability to effectively acquire, organize, and evaluate this information is a critical requirement for achieving mission success (Endsley & Jones, 1997). In this environment, information is a key weapon (Endsley & Jones, 1997), and the ability to manage information is critical. The U.S. Army must transform its personnel to be more effective and make better decisions in the Information Age (General McConville, as cited in Fogarty & Sparling, 2020). This means a force equipped with the ability to utilize technology and to seek out new information sources, critically evaluate and prioritize information, and exploit novel opportunities (Turulja & Bajgorić, 2016). To achieve that transformation, the development of assessments and training must be at the forefront.

The increasing pace of technological advancement further exacerbates this challenge. As new technologies emerge, Soldiers must rapidly adapt their information management skills to leverage these tools effectively. This requires not only technical proficiency but also a deep understanding of information principles, analytical techniques, and the ability to discern truth from falsehood in a complex and contested information landscape. Failure to develop these competencies can lead to information overload, cognitive biases, flawed decision-making, and ultimately, strategic disadvantage (Teska & Pac, 2020). A key factor in this process is that as the number of sources and volume of information increase, the ability to adapt to novel situations decreases (Endsley & Jones, 1997).

To address this challenge, the U.S. Army Research Institute (ARI) is seeking innovative solutions to assess Soldiers' information management capabilities. This Sources Sought Notice focuses on the Information Management Assessment for Personnel (IMAP), which aims to develop a reliable and valid instrument for measuring key information management competencies within the Technological Fluency (TF) model previously developed by ARI. The assessment will be used to inform Soldier selection, assignment, and training decisions and contribute to the development of an effective and resilient Force capable of navigating the complexities of the modern information environment.

This project adopts an approach recognizing that effective information management requires integration of individual skills. These processes include:

- *Information Acquisition*: the ability to gather information from various sources; identifying information that is useful and pertinent to fill knowledge gaps.
- *Information Organization*: the ability to structure and categorize information in a way that facilitates efficient retrieval, analysis, and sharing.
- *Information Evaluation*: the ability to evaluate the reliability of information as well as the sources of information; using information to conduct analyses, identify patterns, and draw inferences.

- **Requested Input and Characteristics of a Successful White Paper:**

To meet the research objectives under this request:

1. The Offeror shall describe the methods that they will use to answer the following questions:

    a. What content should be included in the measure?
    b. What type of framework should be used for the IMAP (e.g., cognitive, personality-based, domain-specific, and information-focused)?

c. What method of assessment (e.g., Situational Judgment Test (SJT) involving information management scenarios, simulated task performance within information systems) should be used and whether or not it should be computerized, considering factors such as feasibility, reliability, validity, and relevance to real-world information management tasks? (Note that self-report inventory approaches are not preferred.)

A successful White Paper will:

a. Be designed and scalable for use in specialty occupations and General Purpose Forces.
b. Apply to multiple MOSs.
c. Apply to deployment and garrison settings.
d. Consider novel hardware and software technologies in the FOE.
e. Be informed by existing military-oriented information management research efforts (e.g., Dickinson, 2025) in scoping project tasks.

2. The Offeror shall describe the method that they will use to develop the IMAP including:

a. Specific strategies for identifying and incorporating relevant technological contexts and tools.
b. Techniques for eliciting and evaluating construct-relevant responses within the chosen technological environment.
c. A validation plan that will work within the confines of data collection with a Soldier population.
d. A plan for iteratively refining the measure based on pilot testing and feedback.

A successful White Paper will:

a. Describe how the items will be refined to improve reliability and validity, including plans for statistical analysis and expert review.
b. Outline the method used to develop a product that is scalable to General Purpose Forces, considering factors such as administration time, resource requirements, and ease of interpretation.
c. Describe a plan for validation of the measure to include:

- Evidence of discriminant validity, demonstrating that the measure is distinct from other unrelated constructs.
- Evidence of predictive validity, demonstrating the ability of the measure to predict future job performance or other relevant outcomes (e.g., success in training programs).

The award will be a 24-month period of performance (Base, 12 months, not to exceed $450,000; Option 1, 12 months, not to exceed $150,000) with a total budget not to exceed $600,000.

The Army Contracting Command- Aberdeen Proving Ground, RTP Division has the authority to award a variety of instruments, to include contracts, grants, and cooperative agreements. The ACC (APG) RTP Division reserves the right to use the type of instrument most appropriate for the effort proposed (contract, cooperative, or grant).

II. PREPARATION AND SUBMISSION OF A WHITE PAPER:

Preparation of White Paper

A White Paper should focus on describing details of the proposed research for both the base and if applicable, option (s) approach, including how it is innovative and how it could substantially advance the state of the science. Army relevance and potential impact should also be described, as well as an estimate of total cost for both the base and option approach. White Papers should present the effort in sufficient detail to allow evaluation of the concept's technical merit and its potential contributions to the Army mission.

A White Paper must be limited to six (6) pages (page one is the cover page) and an addendum in which the Applicant must include a biographical sketch (up to 300 words per individual) of all key personnel (i.e., Principal Investigators and Co-Principal Investigators) who will perform the research, highlighting their qualifications and experience as discussed below. All files and forms must be compiled into a single PDF file or MS Word document before submitting. Reviewers will be advised that they are only to review the cover page and up to five pages plus the addendum. Any pages submitted in excess of the six (6) page limit will not be reviewed or evaluated.

TECHNICAL INFORMATION FOR A WHITE PAPERS:

1. Technical Approach: A detailed discussion of the effort's scientific research objectives, approach, relationship to similar research, level of effort, and estimated total cost; include the nature and extent of the anticipated results, and if known, the manner in which the work will contribute to the accomplishment of the Army's mission related to this request and how this would be demonstrated.

2. Requests for Government Support: The type of support, if any that the Applicant requests of the Government (such as facilities, equipment, demonstration sites, test ranges, software, personnel or materials) shall be identified as Government Furnished Equipment (GFE), Government Furnished Information (GFI), Government Furnished Property (GFP), or Government Furnished Data (GFD). The Applicant shall indicate any Government coordination that may be required for obtaining equipment or facilities necessary to perform any simulations or exercises that would demonstrate the proposed capability.

3. The cost portion of the whitepaper shall contain a brief cost estimate including research hours, burden, material costs, travel, etc.

4. Key Personnel Biographical Information: As an addendum to the White Paper, the Applicant must include a biographical sketch (up to 300 words per individual) of all key personnel (i.e., Principal Investigators and Co-Principal Investigators) who will perform the research, highlighting their qualifications and experience.

RESTRICTIVE MARKINGS ON WHITE PAPERS:

1. The Applicant must identify any proprietary data the Applicant intends to be used only by the Government. The Applicant must also identify any technical data or computer software contained in the White Paper that is to be treated by the Government as limited rights or restricted rights respectively. In the absence of such identification, the Government will assume to have unlimited rights to all technical data or computer software presented in the White Paper. Records or data bearing a restrictive legend may be included in the White Paper, but must be clearly marked. It is the intent of the Army to treat all White Papers as procurement sensitive information before the award and to disclose their contents only to Government employees or designated

support contractors for the purpose of procurement related activities only. Classified, sensitive, or critical information on technologies should not be included in a White Paper.

2. An Applicant is cautioned that portions of White Papers may be subject to release under terms of the Freedom of Information Act, 5 U.S.C. 552, as amended.

Submission of White Paper

White Papers must be submitted by e-mail to the POC for the U.S. Army Contracting Command, megan.a.deluca.civ@army.mil, and cc'd to the ARI Point of Contact (POC), Dr. Nina Rothstein, nina.j.rothstein.civ@army.mil, in electronic MS Word document format or PDF file format. **Cite "ARI BAA W911NF-23-S-0010, Information Management Assessment for Personnel (IMAP)" in the e-mail subject line.**

III. EVALUATION CRITERIA:

A White Papers and full Proposals received in response to this request will be evaluated by the ARI designated point of contact identified in this request using the following factors/criteria:

1. Scientific and Technical Merit- The overall scientific and/or technical merits of the proposed research.

2. Potential Contribution- The potential contributions to ARI's mission.

3. Qualifications/Capabilities- Proposed principal investigator and key personnel qualifications, capabilities, related experience, and techniques and also institutional resources and facilities.

4. Cost- Addresses the level of support requested. Will be considered for realism, affordability, and appropriateness, and may be grounds for rejection independent of evaluation on other factors

The request for a proposal will be made based on the overall evaluation of a White Paper using the four criteria listed above. The overall scientific and/or technical merit of the proposed approach will be weighted more strongly than all of the other non-cost factors combined. All evaluation factors/criteria other than cost, when combined, are significantly more important than cost or price. A request for proposal may not necessarily be made to the lowest proposed price. During the evaluation of White Papers, ARI's POC for technical matters may request a telecon with an Applicant, but telecons are not guaranteed nor required for competition and award purposes. ARI's POC for technical matters reserves the right to evaluate a White Paper and request a proposal without discussions. The Applicant's initial submission should contain the Applicant's best terms from a technical and price standpoint. Once a full proposal has been requested, all communications must go through the POC for the U.S. Army Contracting Command.

If the White Paper evaluation results in the request and submission of a full proposal, the proposal will be evaluated by a panel of scientific peers using the same factors/criteria as those listed above under Evaluation Criteria. A request for a full proposal does not guarantee an award. The decision to award will be based on feedback from the panel, considerations presented by ARI's POC for technical matters identified in this document, and other factors like budgetary constraints. ARI may choose not to select any award due to unavailability of funds or other factors.

IV. FEEDBACK:

Written or telephonic feedback will be provided to the Applicant regarding the White Paper's scientific merit and potential contributions to the ARI's mission. If the Government decides to request a full proposal, a written request will be sent to the Applicant. The Written Request will, at a minimum, invite a full proposal. The request may also include feedback intended to improve the proposal's potential for award.

V. DEADLINES:

Electronic versions of the White Paper must be received by the POC for the U.S. Army Contracting Command and the ARI POC, with e-mail subject line **"ARI BAA W911NF-23-S-0010, Information Management Assessment for Personnel (IMAP)"** by e-mail no later than **5:00 PM Eastern Daylight Time on 3 July 2025.** Any extension to the White Paper submission deadline will be posted to SAM.gov and Grants.gov as an amendment to this Notice. Note that a White Paper received within the deadline will be evaluated to be determined if a proposal request will be issued.

Please refer to the BAA, W911NF-23-S-0010 for instructions for the submission of a full Proposal.

An Applicant is responsible for submitting an electronic White Paper or full proposal so as to be received and accepted at the Government site indicated in this Notice no later than the date and time specified above. When sending electronic files, an Applicant shall account for potential delays in file transfer from the originator's computer to the Government website/computer server. An Applicant is encouraged to submit their response early (48 hours if possible) to avoid potential file transfer delays due to high demand or problems encountered in the course of submission.

An Applicant should receive confirmation of delivery at the Government site, not just successful relay from the Applicant's system. Acceptable evidence to establish the time of receipt at the Government site includes documentary and electronic evidence of receipt maintained by the Government site. All submissions shall be submitted before the deadline identified above in order to be considered – no exceptions.

If an emergency or unanticipated event interrupts normal Government processes so that a White Paper or full proposal cannot be received at the site designated for receipt by the date and time specified above, then the date and time specified for receipt will be deemed to be extended to the same day and time specified in this Notice on the first work day on which normal Government processes resume.

An Applicant agrees to hold the terms of their White Paper and any subsequent proposal valid for 180 calendar days from the date of submission.

VI. INQUIRIES:

ACC (APG) RTP Agency Point of Contact (Contractual Questions)

The POC for the US Army Contracting Command (Aberdeen Proving Ground) Research Triangle Park Division is: Ms. Megan Deluca, (919) 541-4682, megan.a.deluca.civ@army.mil.

ARI Agency Point of Contact (Technical Questions)

The ARI POC for technical matters for this White Paper topic is: Dr. Nina Rothstein, (703) 383-4874, nina.j.rothstein.civ@army.mil.

VII. REFERENCES:

Castillo-de-León, M. A., Méndez-Hinojosa, L. M., & Cárdenas-Rodríguez, M. (2024). Development and psychometric validation of an information competency assessment: The information management brief scale. *European Journal of Educational Research, 13*(2), 619-630. https://doi.org/10.12973/eu-jer.13.2.619

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Endsley, M. R., & Jones, W. M. (1997). *Situation awareness information dominance & information warfare*. (Report No. AL/CF-TR-1997-0156). U.S. Air Force Armstrong Laboratory, Human Engineering Division.

Fogarty, S. G., & Sparling, B. N. (2020). Enabling the Army in an era of information warfare. *The Cyber Defense Review*, *5*(2), 17-25.

Gordon, S. R., & Tarafdar, M. (2007). How do a company's information technology competences influence its ability to innovate? *Journal of Enterprise Information Management, 20*(3), 271-290. https://doi.org/10.1108/17410390710740736

Irwin, D., & Mandel, D. R. (Forthcoming). Improving information evaluation for intelligence production. *Intelligence and National Security.*

Libicki, M. C. (1995). *What is information warfare?* Institute for National Strategic Studies, National Defense University.

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Turulja, L., & Bajgorić, N. (2016). Innovation and information technology capability as antecedents of firms' success. *Economic and Business Review, 14*(2), 149-160. https://doi.org/10.7906/indecs.14.2.4