DEPARTMENT OF ENERGY

Request for Information (RFI) on Partnerships for Transformational Artificial Intelligence Models

THIS IS A REQUEST FOR INFORMATION (RFI) ONLY for the purpose of conducting market research and does not constitute a solicitation or a promise to issue a solicitation. Responses are voluntary and will be used to inform strategic planning, program design, and future funding mechanisms.

AGENCY: Advanced Scientific Computing Research (ASCR), Department of Energy.

RFI Number: DE-ASCR-26-0001

Issue Date: November 13, 2025

Response Due: January 14, 2026

SUMMARY: In accordance with Section 50404 of Public Law 119-21, the Department of Energy (DOE) intends to establish a public-private consortium to curate DOE scientific data across the National Laboratory complex for use in artificial intelligence (AI) models and to develop self-improving AI models for science and engineering using this data. These models must be provided to the scientific community through a system of United States government, academic, and private-sector programs and infrastructure which includes the use of cloud technologies. This historic mobilization of DOE, the National Laboratories[1], and private partners will serve as a force multiplier in executing America's AI Action Plan[2] to achieve global dominance in AI, and to advance scientific discovery, energy, and national security.

DOE seeks input from:

- Institutions, including businesses of all sizes, developing leading-edge AI models and interested in leveraging DOE data, facilities, and/or expertise.
- Institutions, including businesses of all sizes, interested in partnering with DOE and the National Laboratories, potentially in combination with AI developers, to develop AI models with enhanced capabilities.
- Think tanks, investors, and research organizations.
- And other interested entities.

Questions:

1. How should DOE best mobilize National Laboratories to partner with industry sectors within the United States to form a public-private consortium to curate the scientific data of the DOE across the National Laboratory complex so that the data is structured, cleaned, and preprocessed in a way that makes it suitable for use in AI models? How can

[1] For more information on DOE National Laboratories, see: https://www.energy.gov/us-department-energy-national-laboratories.

[2] Winning the Race: America's AI Action Plan. July 2025. https://www.whitehouse.gov/wp-content/uploads/2025/07/Americas-AI-Action-Plan.pdf.

DOE anonymize and desensitize data and/or make use of privacy-preserving AI training methods to enable AI model development using sensitive or proprietary data?

2. How should DOE best structure the public-private consortium to enable activities across a range of scientific and technical disciplines, including partnerships with industry, to develop self-improving AI models for science and engineering using DOE's data, potentially in combination with data from other partners? Specific, related questions for consideration include but are not limited to:
    a. Would custom general-purpose AI models, for example those focused on language and reasoning capabilities, be fine-tuned using data provided by DOE and/or other partners? If so, could such fine-tuning be accomplished using existing or already-planned Application Programming Interfaces (APIs)? Alternatively, would the general-purpose AI models be improved such that custom, fine-tuned versions will be unnecessary?
    b. How should DOE best combine general-purpose AI models, for example those focused on language and reasoning capabilities, with AI models trained on scientific and engineering data? For example, would tool-calling or other APIs be used? Would models be combined by joint training or fine tuning?
    c. What areas of science and engineering are priorities for the development of the self-improving AI models? What classes and modalities of data are likely needed to address these priorities? To what extent can addressing these priorities rely on preexisting data versus depending on the collection or generation of new data?
    d. What are the best use cases for such models, and what are the best ways for such models to be evaluated to demonstrate their improved capabilities?
3. How should DOE best provide AI models to the scientific community through programs and infrastructure making use of cloud technologies to accelerate innovation in discovery science and engineering for new energy technologies?

For the questions above, please consider:

1. How can DOE best structure and incentivize partnerships between DOE National Laboratories and other partners, including through a public-private consortium?
2. How can DOE best develop governance models for shared data, AI models, and computing infrastructure and ensure compliance with applicable legal, regulatory, and privacy standards consistent with Pub. L. 119-21?
3. How can DOE best prepare and curate scientific data at scale for AI training using existing scientific data sets and developing approaches to building and maintaining Findable, Accessible, Interoperable, and Reusable (FAIR), AI-ready data repositories?
4. How can DOE best balance the benefits and challenges of using federated or distributed verses centralized data repositories?
5. How can DOE's development of AI models best drive the curation of existing DOE data and the generation of new data?
6. How can DOE best leverage its Other Transaction Authority (OTA) under 42 U.S.C. §7256(a), (g)?
    a. What intellectual property rights, e.g., invention and data, for the Government, National Laboratories, and partners and developers would best promote AI dominance and enable, not hinder, innovation? What are any potential barriers to AI innovation in the standard DOE data rights in Rights in Data—Programs

Covered Under Special Protected Data Statutes in Appendix A to Subpart D of Part 910 and standard patent rights in 37 CFR 401.14 for DOE to address using OTA flexibilities including at 2 CFR Part 930? How can DOE leverage OTA and its statutory cooperative research and development agreement (CRADA) authority to overcome any potential barriers to using a model CRADA (as defined in DOE O 483.1B) for collaborative R&D between industry and the National Laboratories?

b. How can DOE best protect U.S. research and technology security interests and U.S. manufacturing and competitive interests? For example, a requirement that the deployment of new models be first in the U.S. and shared with U.S. allies and partners. Note that Appendix I lists a subset of DOE's Research, Technology and Economic Security (RTES) Requirements.

7. What lessons learned from existing AI consortia or other public-private consortia can DOE incorporate into this consortium effort?
8. What advantages or disadvantages might incorporated consortia, Focused Research Organizations, or other less-traditional awardee structures have in the context of this consortium effort? In addition to DOE, what kinds of entities might provide investment in such awardees, and what kinds of consideration might such investors receive?

Confidential Business Information

Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: one copy of the document marked "confidential" including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act or otherwise. The U.S. Government is not liable for the disclosure or use of unmarked information and may use or disclose such information for any purpose. If your response contains confidential, proprietary, or privileged information, you must include a cover sheet marked as follows identifying the specific pages containing confidential, proprietary, or privileged information:

Notice of Restriction on Disclosure and Use of Data

Pages [list applicable pages] of this response may contain confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed by the Government and its contractors (including DOE's contractor operated laboratories) only for the purposes described in RFI DE-ASCR-26-0001. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.

In addition, (1) the header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: "Contains, Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure" and (2) every line and paragraph containing proprietary, privileged, or trade secret information must be clearly marked with [[double brackets]] or highlighting.

Please be aware that DOE may make available for public inspection all other comments, in their entirety, submitted by organizations and businesses (except as provided above for proprietary

information) or by individuals identifying themselves as representatives of organizations or businesses.

Submission Instructions: Responses should not exceed 5 pages, including attachments or cover letters, except as noted below. Please include:

- Organization name and point of contact.
- Optionally, responses may include an appendix providing feedback or changes to specific terms and conditions or DOE policy, including to DOE's standard patent and data rights as noted above or to the RTES requirements in Appendix I. Providing alternate wording, along with a rationale for that wording, addressing the purpose of each provision that would not impede quickly and effectively establishing AI partnerships is encouraged. This appendix is not included in the page-count limit noted above.
- Responses should be submitted electronically to AICommunityInput@science.doe.gov and include "Transformational Artificial Intelligence Models" in the subject line of the email.

FOR FURTHER INFORMATION CONTACT: Questions may be addressed to the DOE Office of Science AI Team through AICommunityInput@science.doe.gov.

Appendix I: Research, Technology and Economic Security (RTES) Requirements

No Entity of Concern as defined in Section 10114 of Public Law 117-167 (42 USC 18912) may participate in the Project.

The Project is subject to an ongoing research, technology, and economic security risk review and monitoring to identify potential risks of undue foreign influence. As part of the review, DOE may require the Selectee and/or Project team members to provide additional information to inform the review.

DOE may share information regarding the risks identified as part of the RTES due diligence review process or monitoring with other Federal agencies.

In the event an RTES risk is identified, DOE may require risk mitigation measures, including but not limited to, requiring that an individual or entity not participate in the Project. If significant risks are identified and cannot be sufficiently mitigated, DOE may terminate the Project

DOE's decision regarding a due diligence review is not appealable.

The Selectee and Project team members must make reasonable efforts to ensure that DOE has up to date Transparency of Foreign Connections disclosures. If circumstances change which impact the accuracy of the disclosures, the Selectee must submit updated disclosures to DOE within fifteen (15) business days of learning of the changed circumstances. The updated disclosure must be provided to [CONTACT INFORMATION WILL BE PROVIDED IN THE AWARD TERMS].

The Selectee must provide DOE with advance notice of the following events, as they relate to the Selectee, Project partners, or Project:

1. Change in ownership or control of the Selectee or Project team members that increases foreign ownership related to a foreign country of concern;
2. Any new or pending parent company, joint venture, or subsidiary, of entity that is based in or receives funding from any foreign country of concern;
3. Any new or pending contractual or financial obligation or other agreement specific to a business arrangement, or joint venture-like arrangement with an entity based in, or funded by, any foreign country of concern;
4. Any new or pending venture capital or institutional investment by an entity that has a general partner or other individual holding a leadership role who has a foreign affiliation with any foreign country of concern;
5. Any new or pending technology licensing or intellectual property sales or transfers to a foreign country of concern where the underlying technology is in the same technology area as the Project;
6. Any new or pending foreign business entity, offshore entity, or entity outside the United States that is based in, or funded by, any foreign country of concern;
7. Any changes to the Selectee or Project partners' board of directors, including additions to the number of directors and the identity of new directors. Each notification shall include a complete up-to-date list of all directors (and board observers), including their full name, shareholder affiliation, date of appointment,

voting rights, citizenship, duration of term, as well as a description of observer rights as applicable;

8. Any new or pending indebtedness, liabilities, or obligations to an entity based in, or funded by, any foreign country of concern (whether the Selectee or Project partner is borrower, surety, guarantor, or other);

9. Any of the following changes to the equipment proposed for use on the Project:
    i. Unmanned aircraft, control, and communication components originally made or manufactured in a foreign country of concern (including relabeled or rebranded equipment);
    ii. Coded equipment where the source code is written in a foreign country of concern;
    iii. Equipment from a foreign country of concern that will be connected to the internet or other remote communication system;
    iv. Any entity from a foreign country of concern that will have physical or remote access to any part of the equipment used on the Project after delivery.

DOE may require mitigation to address increased risks of undue foreign influence or if the risks cannot be sufficiently mitigated, DOE may terminate the Project.