

National AI Strategy

- Sustained, long-term support
- Maintain and grow U.S. Leadership in AI
- Core missions:
 1. advance fundamental knowledge of AI;
 2. advance use-inspired work to solve real-world problems of importance to the U.S. economy
 3. grow the U.S. AI workforce and build pathways for students from diverse backgrounds.



National AI R&D Strategic Plan



programs

+ partners

National Artificial Intelligence (AI) Research Institutes

- \$20M (~4M/year) over 5 years
- Foundational and use-inspired AI research
- Innovation in AI education and workforce development
- New partnership development

AI Institutes and Funding Partners



Community Portal



Facilitator and Resource Center

- Directory of Institute contacts
- Advice on partnership inquiries

Learn more about AI Institutes at <https://aiinstitutes.org>



25 Active Institutes

- **2020: First cohort of Institutes (5 NSF, 2 NIFA)**
- **2021: Second cohort of Institutes (9 NSF, 2 NIFA)**
- **2023: Third cohort of Institutes (6 NSF, 1 NIFA)**

AIVO: <https://aainstitutes.org>

Link to all awards: [NSF Award Search](#)



Goals of the ExpandAI Program



ExpandAI Program Overview

- Program Goal: **Diversify participation in AI research, education, and workforce development through (1) Capacity Building and (2) Partnerships with the National AI Research Institutes**
- NSF supports growth of interdisciplinary research by diverse community for advancement of AI-driven innovation
- MSIs are source of untapped talent critical to future AI innovation/responsible AI research
- Many minority-serving institutions (MSIs) are not yet significantly engaged in AI research and education. However, there is enormous potential to develop talent through federally supported AI research that is critical to future AI innovation and responsible AI research
- ExpandAI promotes capacity development for new AI programs at Minority Serving Institutions (MSIs), as well as partnerships between MSIs and AI Institutes



Capacity

Build AI capacity

MSI-specific goals
Institutional Change
Potential Path
to Partnership



Partnership

Leverage AI Institutes

MSI-led awards
AI Institute subawards
Shared vision and goals
Institute integration plans

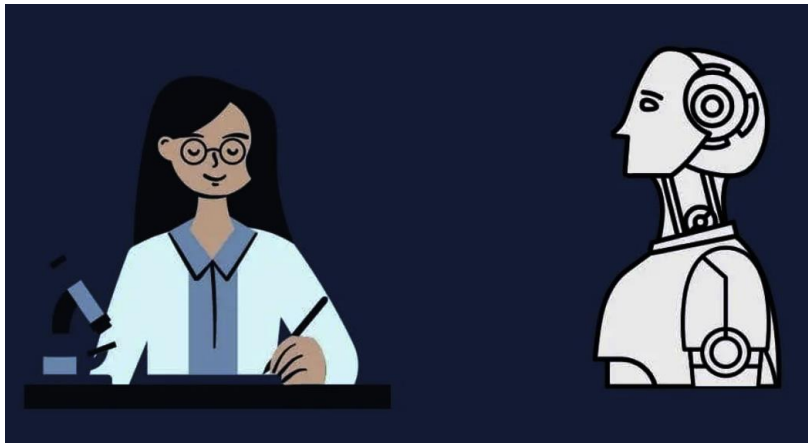


Approach

Lower barriers to success

Concept outlines
Submission windows
Flexible submissions





Track 1 - CAP

CAPACITY BUILDING – INSTITUTIONAL CHANGE

Establishment of new AI research, education, workforce development, and/or infrastructure

Planning and growth efforts focused on establishment of AI activities at MSI and early exploration of future partnerships



Track 2 - PARTNER

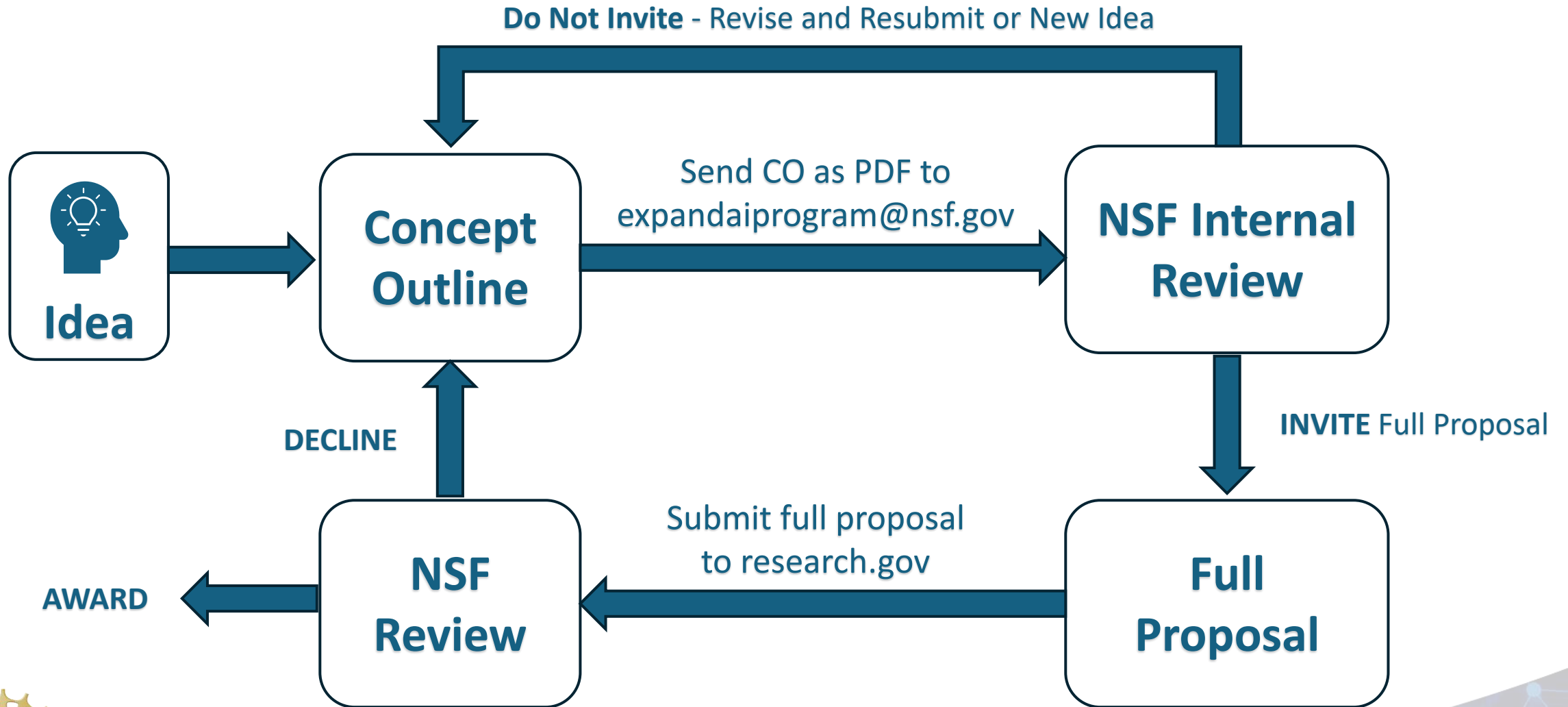
NEW COLLABORATIONS WITH AI INSTITUTES

Leverage AI Institutes as new collaborations for MSIs to scale up established AI research and/or education

Multi-organization collaborations submitted by the MSI with subaward to the AI Institute



ExpandAI Approach



Concept Outlines (CO)



Concept Outlines

- All proposers must receive an official invitation via the Concept Outline (CO) process to submit a full proposal to the solicitation
- **Two-page** concept outline
- NSF will review Concept Outlines on an ongoing basis for potential to be responsive to ExpandAI program objectives
- Ensures proposers do not expend time or resources preparing full proposals that do not have strong potential to be responsive to the program objectives
- COs are required for both tracks (CAP and PARTNER)
- COs must be sent as PDF attachment in an email sent to: expandaiprogram@nsf.gov
- Format SUBJECT line: “CO: [Title as it appears in Concept Outline]”
 - SUBJECT: CO: CAP: AI Capacity Building in XYZ University
- If the Concept Outline is not responsive to ExpandAI program objectives, proposer will receive notice **not** to submit a proposal
- Proposers **not invited to submit** a full proposal in response to a Concept Outline may submit a new Concept Outline after the start of the next submission window (sooner, by exception, if specifically invited by the program)
- Resubmitted COs need to have been substantially revised according to reviewers' comments.



Anatomy of a Concept Outline

TITLE: CAP: Transforming AI Education at This Is My University

PI/Co-PIs:

First	Last Name	Email	Organization	Role
Dillon	Watring	dwatring@timu.edu	This Is My University	PI
James	Donlon	jdonlon@timu.edu	This Is My University	Co-PI

MSI Status: This is My University (TIMU) is a completely made-up University that meets the requirements for Eligible Institutions of Higher Education in this solicitation as a HSI. It is made up solely for purposes of showing formatting of the concept outline ...

Current AI Capacity: An initial assessment of TIMU's current artificial intelligence indicates that there is a lacking in all capacities (e.g., research, instruction, and infrastructure) ...

Capacity Building Goals: The capacity building goals are as follows ...

Partnership Goals: The partnership goals are ...

1. **Title:** [CAP or PARTNER] Concise, descriptive title of project preceded by CAP: or PARTNER: for each respective track.

2. **Name of PI and co-PIs:** List up to 5 personnel. For PARTNER COs, include a co-PI from the partnering AI Institute

3. **MSI Status:** (250 words) Briefly describe the submitting institution's current AI capacity in research, instruction, and infrastructure as it relates to the proposed CO.

CAP Track: Demonstrate a compelling institutional need for capacity building in AI.

PARTNER Track: Describe a suitable foundation for success in collaboration detailed in the CO.

2-page maximum



Anatomy of a Concept Outline

TITLE: CAP: Transforming AI Education at This Is My University

PI/Co-PIs:

First	Last Name	Email	Organization	Role
Dillon	Watring	dwatring@timu.edu	This Is My University	PI
James	Donlon	jdonlon@timu.edu	This Is My University	Co-PI

MSI Status: This is My University (TIMU) is a completely made-up University that meets the requirements for Eligible Institutions of Higher Education in this solicitation as a HSI. It is made up solely for purposes of showing formatting of the concept outline ...

Current AI Capacity: An initial assessment of TIMU's current artificial intelligence indicates that there is a lacking in all capacities (e.g., research, instruction, and infrastructure) ...

Capacity Building Goals: The capacity building goals are as follows ...

Partnership Goals: The partnership goals are ...

4. **Goals:**

CAP Track: (500 words) Describe the outcomes and benefits of capacity building to the MSI. Outline goals and any preliminary plans that will be fully described in the full proposal's Capacity Building Plan.

PARTNER Track: (500 words) Identify the organizations and the prospective collaborative work in a unifying theme or focus. Outline shared goals and identify prospective projects that might be fully described in the Partnership Roadmap in the full proposal. Clearly highlight the mutual benefit and outline the potential benefits of the concept to both the MSI and the AI Institute.

2-page maximum



What needs to be demonstrated for CAP COs and Proposals

- **Concept Outline**

- Demonstrate a compelling institutional need for capacity building in AI
- Articulate clear vision motivating the capacity building activities with a focus on long-term benefits to the MSI

- **Full Proposals**



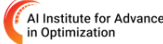





- Same as the concept outline
- Benefits to MSI include enhanced faculty capacity for foundational and/or use-inspired AI research or new effective models for increased education and career pathways in AI.
- Proposals to this track must include a strong *Institutional Need and Support Statement* containing
 - an assessment of the current AI research and instructional capacity and infrastructure, a demonstration of institutional need for capacity building in AI
 - a statement of the commitment of institutional support for the proposed activities.
- Proposals that substantiate a strong case in the need and support statement are likely to be the most competitive.
- Successful proposals will feature a *Capacity Building Plan* that features clear and measurable outcomes/benefits of capacity building.



Finding an AI Institute to PARTNER with

- Subaward may be made to the AI Institute lead organization or any of the sub-awardee organizations in that Institute's award budget
- **Current AI Institutes**
 - AI Institutes Virtual Organization (AIVO) Website
 - Expand AI Page: <https://aiinstitutes.org/expandai/>



AgAID  AI Institute for Transforming Workforce & Decision Support	Jordan Jobe jordan.job@wsu.edu Contact Jordan Website	AI2ES  ARTIFICIAL INTELLIGENCE COMMUNICATION ENVIRONMENTAL SCIENCE	Susan Dubbs contact@ai2es.org Contact Susan Website
AI4OPT  AI Institute for Advances in Optimization	Kevin Dalmeijer Managing Director dalmeijer@gatech.edu Contact Kevin Website	AI-ALOE  AI-ALOE	Chaohua Ou cou@gatech.edu Contact Chaohua Website
AI-CARING  AI CARING	AI-CARING Contact AI-CARING Website	AI-EDGE  EDGE Institute	Yingbin Liang yingbinliang@gmail.com Contact Yingbin Website
AIFARMS  AI Institute for Food Agricultural Resilience, Management, and Sustainability	Jessica Wedow wedow2@illinois.edu Contact Jessica Website	AIFS  AI INSTITUTE FOOD SYSTEMS	Steve Brown sfbrown@ucdavis.edu Contact Steve Website

ETC...
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What needs to be demonstrated for PARTNER COs and Proposals

- **Concept Outline**

- MSI capacity is suitable for the PARTNER track
- Clearly identified and described Partnership goals that demonstrate benefits to both the submitting MSI and the partnering AI Institute

- **Full Proposals**

- MSIs must demonstrate readiness to leverage new partnerships to develop AI capacity
- Benefits of collaboration to the proposing MSI(s) are clearly articulated
- Connections between the identified research efforts and AI institute research are strong
- Compelling Partnership Roadmap - joint strategy for collaborative work clearly laid out
- Arrangements described significantly scale up AI capacity at the proposing MSI (growth in AI capacity is substantial)
- Activities described are AI-related
- PARTNER proposals must feature a compelling **Partnership Roadmap** for collaborative work in some unifying theme or focus
- Proposals to this track must include a strong **Institutional Need and Support Statement** from proposing MSI which demonstrates institutional commitment for proposed activities as well as contain an assessment of
 - current AI research and instructional capacity infrastructure
 - progress in AI capacity development and how that relates to the outlook for partnership development
- PARTNER proposals must include an **Institute Integration Plan** submitted by the collaborating institute demonstrating thoughtful and well-resourced commitment to coordination mechanisms that will bring together the various participants of the project.



Important Dates and contact information

- Full proposal submission windows:
 - March 12, 2024 – June 24, 2024
 - June 25, 2024 – October 18, 2024
 - January 6, 2025 – March 10, 2025
- Office hours:
 - Monday, June 17, 2024, 3-4PM EST

ExpandAI Website



AIVO Website



Contact Information:

- ExpandAI Team
- James Donlon (co-lead)
- Abiodun Ilumoka (co-lead)
- Dillon Watring

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Questions?

