

NSF AI Opportunities

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Unlocking Dataset Value for AI-Enabled Scientific Discovery (AI Datasets)

- NSF-wide solicitation published July 21, 2026
- **\$60M - \$100M to be made available**
- **NSF Events page:** [NSF AI Datasets Webinar Events Page](#)
(webinar held 9 Sept, recording not available yet)
- [Slides from the 9 Sept. webinar.](#)

Unlocking Dataset Value for AI-Enabled Scientific Discovery (AI Datasets)

[View guidelines](#)

NSF 26-512

Objective: Advance **scientific community datasets** to enable scientific discovery and innovation using AI and other methods

Goals: Enable the use of **existing** scientific datasets in

- New AI-driven inquiries, or
- Interdisciplinary research, or
- Investigations outside of the original scope of data collection or analysis



The Program Seeks to

- Apply AI-based capabilities to feature extraction and metadata generation, and the integration of multiple datasets.
- Develop robust data pipelines necessary for automated analysis of existing datasets and similar use-cases by AI tools and systems.
- Augment and/or harmonize existing datasets to better enable use by AI data pipelines and automated analysis.
- Research to collect *de novo* datasets is out of scope and remains in the

Note on De Nova datasets:

Recognizing that existing datasets may contain gaps that limit their effective use by AI methods, limited supplementary data collections may be included when it is well justified as necessary to enhance the utility of an existing dataset. Such activities should remain ancillary.

Proposers should ensure that the project narrative remains centered on the NSF merit review and solicitation-specific review criteria.



Award Information

Anticipated funding amount: \$60 M to \$100 M

Impact

- Up to 3 years
- Maximum \$2,000,000 per award
- Approximately 10 to 20 awards

Planning

- Up to 2 years
- Maximum \$200,000 per award
- Approximately 10 to 20 awards
- Address early-stage issues that may lead to stronger full proposals
- **Must** contact aidatasets@nsf.gov for guidance and approval

Flagship

- Up to 3 years
- Maximum \$5,000,000 per award
- Approximately 5 to 10 awards
- Address more complex challenges that are not achievable without more substantial resources
- Encouraged to contact aidatasets@nsf.gov to discuss project scope and concept early



Connection to the Genesis Mission

NSF issued a Dear Colleague Letter (DCL) on 22 July, 2026:

- [Unleashing a new age of AI-enabled scientific discovery through the Genesis Mission](#)
 1. **Leveraging and Building AI for Science.**
 2. **Building Foundations for S&T Challenges.**
 3. **Growing Workforce and Capacity in AI for Science.**

Proposals will be submitted to existing solicitations with “Genesis Mission:” prefix in the title. Hopefully, these OAC solicitations will accept these Genesis Mission proposals:

Cyberinfrastructure Systems for Scientific Innovation (CSSI)
+others

Generic links of use to NSF Proposal Writers

Information for prospective New Awardees:

- <https://www.nsf.gov/awards/first-time-awardees>

NSF's guidelines on use of Generative AI in proposal development and merit review:

- <https://www.nsf.gov/policies/ai/merit-review>

NSF PAPPG document:

- [**Proposal & Award Policies & Procedures Guide \(PAPPG\) \(NSF 24-1\)**](#)

In particular, the Proposal Preparation Instructions:

- <https://www.nsf.gov/policies/pappg/24-1/ch-2-proposal-preparation#ch2F1>
- and PAPPG supplement 1:
 - <https://www.nsf.gov/policies/document/pappg24-1-supplement-1#revision-thresholds>.

[NSF Review Criteria](#): Intellectual Merit and Broader Impacts.

- What are [Broader Impacts](#)?
- Individual NSF solicitations often have additional review criteria