



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 22-086

Dear Colleague Letter: Announcing Collaboration Opportunities in Responsible and Equitable AI under the U.S. National Science Foundation (NSF) and the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO)

June 3, 2022

Dear Colleagues:

NSF and CSIRO welcome proposals from joint teams of U.S. and Australian researchers on responsible and equitable artificial intelligence (AI).

Responsible AI concerns the ethical development of AI to benefit individuals, society, and the environment, including adherence to AI Ethical Principles such as those defined by [Australia's AI Ethics Framework](#) and the [US National AI Research and Development Strategic Plan: 2019 Update](#). It should be interpreted broadly to include the design, data, and algorithmic aspects of AI systems as they relate to ethical principles (such as fairness, accountability, transparency, inclusion, promotion of the general welfare, and sustainability), as well as the systems and software engineering aspects (such as auditing and monitoring, privacy considerations, and impact of deployments) of responsibility in AI systems.

Equitable AI refers to eliminating discrimination, avoiding misuse, preventing unintentional harm, and protecting individual rights. The involvement of those potentially affected by AI systems in the creation of those systems in order to ensure the sensitivity of those systems to varying cultural norms and expectations, and efforts to increase the number of people from disadvantaged and under-represented groups in AI research development, are means to achieve the aims of Equitable AI.

Proposals should be submitted to [National Science Foundation Core Programs in Computer and Information Science and Engineering \(NSF 22-631\)](#) in the Small category for [Information & Intelligence Systems/ Human-Centered Computing \(IIS/HCC\)](#). The proposal should include separate budgets for the U.S. and Australian researchers (see Guidelines, below). Budgets for U.S. researchers may be up to \$600,000 USD over a 3-year period. Proposals with

budgets at, or near, this cap should be commensurate with the size of the project and the team, most likely for projects with established collaborations with Australian researchers. The budget for the Australian researchers should be expressed in AUD and has an upper limit of \$850,000 AUD total, over 3 years.

Proposals for smaller projects and teams, likely those forming new collaborations, should have U.S. budgets up to \$300,000 over 3 years. The Australian researcher budget for these projects should be expressed in AUD with an upper limit of \$425,000 AUD total over 3 years. We expect the effort of the US and Australian team members to be comparable, but do not require the budget to be split.

Proposals must present a unified research program collaboratively pursued by the U.S. and Australian team members. A description of the research team including both the U.S. and Australian researchers and their contributions to the project must be discussed in the Project Description in a section entitled "US-Australian Team" (see Guidelines item 1 below). The research agenda must focus on new approaches to equitable and responsible AI and be aligned with one or more of the strategic priorities listed in the [CSIRO Missions](#) program. Alignment to the CSIRO Missions is defined loosely but could include addressing one of the areas as a case study or as part of the evaluation. Alignment with CSIRO missions must be addressed in a section of the Project Description with the heading "Alignment with CSIRO Missions". Further guidance on this aspect is available by contacting csiroenquiries@csiro.au.

Proposals will be reviewed by NSF using NSF's merit review process as described in the *NSF Proposal and Award Policies and Procedures Guide (PAPPG)* and will include CSIRO representatives as observers. Prior to submission to NSF, proposals will be checked for alignment with the CSIRO Missions. All proposals must be submitted to CSIRO for compliance checking with the CSIRO missions no later than close of business on September 1, 2022. CSIRO will respond to teams about whether the proposal aligns with the CSIRO missions areas and approval to submit to NSF no later than September 23, 2022 (**see Guidelines item 2 below**). Awards for successful proposals will be made by NSF to the U.S. portion of the team and by CSIRO to the Australian portion of the team.

Proposals submitted in response to this DCL should include the prefix "NSF-CSIRO:" in their titles (see Guidelines below). They must be received by NSF by **October 17, 2022** after which reviewing will begin. (Note that this is a firm deadline for this opportunity even though the general CISE Core program has no deadlines for the Small category.)

GUIDELINES

1. The proposed work submitted under an NSF-CSIRO collaboration must be an integrated collaborative effort aligned with one of the CSIRO mission areas as

discussed above. The Project Summary and Project Description must include a description of the collaboration, including an explanation of the roles and research activities of both the U.S. researchers and the Australian collaborators, and an explanation of how the team will work together. In the Project Description this information should be set off in a section entitled "US-Australian Team".

2. Alignment with one or more of CSIRO missions must be discussed in a section of the Project Description with heading "Alignment with CSIRO Missions." Prior to submission to NSF, CSIRO will review proposals for alignment with its [missions](#). The submitting organization must send the completed Cover Page (with finalized title and U.S. PI and co-PIs), Project Summary, Project Description, References Cited, list of PIs, co-PIs and all Senior Personnel, and the Australia Budget and Justification via email to Aapplications@csiro.au by close of business **September 1, 2022**.

CSIRO will review the proposal for alignment with its missions and reply to the U.S. PI with a letter indicating whether the proposal is, in that respect, acceptable or not. **Only those proposals affirmed by CSIRO to align with their missions should be submitted to NSF.** The CSIRO letter affirming the mission alignment must be uploaded with the proposal as a **Supplementary Document**. Proposals submitted to NSF without this letter will be returned without review.

3. Proposals must describe the Intellectual Merit and Broader Impacts of the project in accordance with standard NSF proposal preparation instructions contained in the [PAPPG](#). Broader Impacts can include societal benefits to the U.S. and Australia.
4. Proposals should describe the complete US-Australia collaborative research program, including the total U.S. and Australian resources that will be part of the project. Only the U.S. expenses should be entered on the NSF budget form. Australian proposers should provide only the Australian research expenses in both U.S. dollars and Australian dollars and justification on a separate document **included in the NSF proposal as a Supplementary Document**. See Guidelines and a budget template for Australian proposers at this [link](#).
5. The Budget Justification section of the NSF proposal should clearly differentiate the activities under the U.S. budget from activities under the Australian budget, and it must justify the full U.S. project budget. Similarly, the Budget Justification section of the Australian budget documentation (submitted as a Supplementary Document, as per item 4 above) should clearly differentiate the activities under the U.S. budget from activities under the Australian budget, and it must justify the full Australian budget. Proposals that request funding for activities duplicated by the U.S. and Australian teams may be returned without review.
6. Proposals must be submitted by a U.S. organization to the Computer and Information Science and Engineering: Core Programs in the Small project class for Information and Intelligent Systems / Human-Centered Computing (IIS/HCC). Proposers may submit

their proposals using either Research.gov (<https://www.research.gov>) or Grants.gov (<https://www.grants.gov>). Proposals must be submitted according to the standard requirements of the NSF PAPPG following the additional requirements and guidelines expressed in the CISE Core Program solicitation (NSF 22-631).

7. Involvement in a joint international proposal will count towards the limit on the number of submissions in which an individual may participate as PI, Co-PI, or senior personnel of a proposal submitted to the CISE Core Program solicitation (NSF 22-631).
8. The title for the proposals submitted by a single U.S. organization should carry the prefix "NSF-CSIRO:". If the proposal is submitted as part of a set of collaborative proposals from multiple U.S. organizations, the title should begin with "Collaborative Research: NSF-CSIRO:". Please note that if submitting via Research.gov, the system will automatically insert the prepended title "Collaborative Research" when the collaborative set of proposals is created. Do **NOT** choose "Separately submitted collaborative proposal" in Research.gov unless more than one U.S. organization will be submitting the same proposal for separate funding.
9. Australian investigators should NOT be listed as co-PIs on the NSF Cover Sheet. Instead, they should be listed as **Senior Personnel**. This will help ensure that the NSF systems will request any additional documents that are required. Information for "Current and Pending Support" is required for all personnel listed as "Senior Personnel".
10. Biographical sketches should be provided for both the U.S. and Australian investigators and should be prepared in accordance with the standard biographical sketch format described in the NSF PAPPG.
11. Projects involving human subjects or participants, or vertebrate animals, should follow both the NSF guidelines contained in the PAPPG and the [Australian Code for the Responsible Conduct of Research](#), along with the requirements of the individual's institutions, submitting documentation to each as appropriate.
12. Researchers will be required to acknowledge both NSF and CSIRO in any reports or publications arising from the grant.

ADDITIONAL DOCUMENTS

The NSF proposal must include the documents requested in the CISE Core Program solicitation (NSF 22-631) and as described in the PAPPG.

In addition, the following documents must be included in NSF-CSIRO proposals:

1. Provide as a **Supplementary Document** a copy of the **proposed Australian budget** using Australian Dollars, and a budget justification that explains the request (see guidelines and budget template for Australian applicants at this [link](#)).
2. Provide as a **Supplementary Document** the letter from CSIRO affirming alignment with one or more of their missions. Proposals without this letter will be returned without review (see Guidelines item 2 above).

3. Provide a list, as a **Single Copy Document**, of collaborators and other affiliations for each Senior Personnel included in a proposal, **including Australian partners**. These lists are required so NSF manage reviewer selection. See PAPPG Chapter II.C.1.e.
4. Letters of collaboration (pertaining to collaborations **other** than the US-Australia investigator team) may be included, however they must comply with the requirements in the PAPPG Chapter II.C.2.j.

Sincerely,

Margaret Martonosi
Assistant Director
Directorate for Computer and Information Science and Engineering

Kendra Sharp
Office Head
Office of International Science and Engineering