



National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230

NSF 14-030

Frequently Asked Questions (FAQs) for NSF 14-516, Exploiting Parallelism and Scalability (XPS)

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1. How can I tell whether my proposed research is a good fit for the XPS program?

The XPS program aims to support groundbreaking research leading to a new era of parallel computing. This program seeks transformative proposals on new and visionary approaches that re-examine the traditional computer hardware and software stack for today's heterogeneous parallel systems and explore new cross-layer approaches. Achieving these breakthroughs will require a collaborative effort among researchers representing different areas, so each full-size (FULL) proposal is required to have two or more Principle Investigators (PIs) providing different and distinct expertise relevant to the program's focus areas.

Exploratory (EXPL) proposals do not require multiple PIs. However, they are required to explain the potential of the project to lead to a larger project suitable for a FULL proposal.

Proposals that focus on the extension of existing approaches; proposals that seek to solve domain science problems; and proposals that seek to build software infrastructure are not appropriate for XPS. Such proposals may be appropriate for other NSF Programs, such as the Computer & Information Science & Engineering (CISE) Core Programs ([CCF](#), [CNS](#), [IIS](#)), Computational and Data-Enabled Science and Engineering ([CDS&E](#)), and Software Infrastructure for Sustained Innovation ([SI2](#)).

2. I work in field A and my co-PI works in field B. Does this count as "different and distinct expertise?"

There is not a hard-and-fast rule about this question. It is up to the proposers to make the argument that the PIs provide different and distinct expertise relevant to the program's focus areas. Each FULL-SIZE proposal is required to have a collaboration plan as a separate supplementary document, which must describe the backgrounds and different expertise of the PIs, how they relate to the proposed work, and how the PIs plan to collaborate. This plan will be evaluated by the panelists or reviewers as part of the proposal review process.

3. Does it matter which focus area I specify for my proposal?

The focus area selected will be used to initially group the proposals for review, but there are no set allocations of funds to focus areas. Also note that the proposal title must indicate the focus area as described in the solicitation's proposal preparation instructions.

4. How do I submit a proposal to this program?

Please carefully read and follow the instructions provided in (i) the solicitation itself (http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf14516) and (ii) the NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) available at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg or the Grants.gov Application Guide available at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide. If you need additional help preparing and submitting your proposal, we recommend that you contact your institution's Sponsored Projects Office or Fastlane User Support (see <https://www.fastlane.nsf.gov/>).

5. Do I need to use Grants.gov or Fastlane to apply?

You may use either Grants.gov or Fastlane.

6. Is my project likely to get funded?

Your proposal will be reviewed using the NSF merit review criteria by panelists or reviewers with expertise in the topics covered in your proposal. As a matter of principle, program directors do not provide proposers with further advice during merit review regarding the likelihood that a specific proposal would receive funding.

7. Can I obtain a postdoctoral fellowship through the XPS program?

An XPS research proposal may request funding for a postdoctoral fellow as part of the project. However, the program does not accept applications for individual postdoctoral traineeships. See http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg_2.jsp for proposal requirements (including the Postdoctoral Mentoring Plan) relating to support for postdoctoral fellows.

8. Can employees of Federal Agencies or Federally Funded Research and Development Centers submit proposals in response to this solicitation?

NSF does not normally support research or education activities by scientists, engineers or educators employed by Federal agencies or Federally Funded Research and Development Centers (FFRDCs). A scientist, engineer or educator who has a joint appointment with a university and a Federal agency (such as a Veterans Administration Hospital, or with a university and a FFRDC) may submit proposals through the university and may receive support if he/she is a bona

fide faculty member of the university, although part of his/her salary may be provided by the Federal agency (See http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg_1.jsp). Furthermore, scientists, engineers, or educators employed by FFRDCs can be sub-awardees on a project led by an entity, e.g., a university, that is eligible to apply for grants from NSF. Such a sub-award typically does not provide funds for salary, but can provide funds for travel to work with their collaborators on the project or for students to work on the project as interns in FFRDC labs.

9. Can for-profit entities apply for funding through this solicitation?

US commercial organizations, especially small businesses with strong capabilities in scientific or engineering research or education, can submit proposals in response to this solicitation. NSF is interested in supporting projects that couple industrial research resources and perspectives with those of universities; therefore, it especially welcomes proposals for cooperative projects involving both universities and the private commercial sector (http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg_1.jsp).

10. What are the intellectual property implications for a for-profit entity that submits a proposal in response to this solicitation?

A plan for management of data and sharing of the products of research is a required element of the proposal. The data management plan should describe how the project would conform to NSF policy on the dissemination and sharing of research results. (See http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg_2.jsp#dmp.) Proposers should note that the NSF data sharing policy requires investigators to share data gathered under an NSF grant with other researchers "within a reasonable time" after the data are generated. The policy also recognizes that investigators and their employers have a legitimate interest in protecting rights to inventions that are developed under an NSF grant. Details about NSF's intellectual property policy can be found at http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/aag_6.jsp#VID. The degree to which the proposed data management plan demonstrates intellectual merit and broader impacts will be considered by the review panel as part of the standard NSF review criteria (http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg_3.jsp).

11. Are duplicate submissions allowed?

No. Proposals submitted in response to this solicitation may not duplicate or be substantially similar to other proposals concurrently under consideration by the NSF, or other agencies' programs or study sections.

12. Should I discuss my proposal with NSF program directors?

Yes, PIs are encouraged to discuss planned proposals with program directors to assist them in determining whether XPS is a suitable program for the work. Please be considerate of program directors' time and refrain from scheduling separate meetings with multiple program directors in the same program. Once submitted, the substance of proposals will not be discussed by NSF program directors, as this would constitute unfair competition, or the perception thereof.

13. Who are the XPS program directors, and which one should I talk with?

The list of current XPS program directors is available on the NSF web pages for the program (http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504842). PIs should discuss potential proposals with the program directors whose areas are closest to that of the proposed research.

14. Do XPS proposals count against the CISE Core program limits on number of proposals

allowable per year?

No. The limits imposed by the CISE Core programs do not apply. No person, however, can be PI, co-PI, or senior personnel on more than two XPS proposals.

15. Will there be future XPS solicitations?

We anticipate that there will be future XPS solicitations, subject to available funds.