



NATIONAL SCIENCE FOUNDATION  
2415 EISENHOWER AVENUE  
ALEXANDRIA, VIRGINIA 22314

NSF 19-064

## Frequently Asked Questions (FAQs) for Frontier Submissions to NSF 19-553, Cyber-Physical Systems

---

The following questions and answers refer to Frequently Asked Questions (FAQs) about the Cyber-Physical Systems program solicitation (NSF 19-553). They are not intended to be a modification of the program solicitation. If there are any inconsistencies between the CPS program solicitation and these FAQs, the information in the program solicitation prevails.

1. If an individual is part of two proposals submitted in the Small and/or Medium category in April 2019, would that individual be ineligible to participate in a Frontier proposal team in September 2019?
2. How can industry participate in a CPS Frontier proposal beyond their support through a letter of collaboration?
3. What is the relationship between Broader Impacts and Broadening Participation in Computing (BPC) and Engineering (BPE)?
4. Can my proposal fund international collaborators?
5. How does the multi-agency aspect of this program solicitation impact the proposal review process?
6. Do we need permission from NSF in some form to submit a proposal targeted to a specific agency highlighted in the solicitation?
7. My project may require clinical trials for the Transition to Practice (TTP) option. Would this be appropriate if the project is co-funded by the National Institutes of Health (NIH)?

- 
1. **If an individual is part of two proposals submitted in the Small and/or Medium category in April 2019, would that individual be ineligible to participate in a Frontier proposal team in September 2019?**

An individual may participate as PI, co-PI, Senior Personnel, or Consultant in no more

than two proposals of any size submitted in response to this solicitation. The individual's participation as PI, co-PI, Senior Personnel, or Consultant on the Frontier proposal after two other proposals would result in the Frontier proposal (and any other proposals in the collaborative project) being returned without review.

**2. How can industry participate in a CPS Frontier proposal beyond their support through a letter of collaboration?**

Industry can participate in a proposal as a subawardee. Per the eligibility criteria in the CPS solicitation, industry cannot submit a separate proposal. Grant Opportunities for Academic Liaison with Industry (GOALI) proposals are also permitted; see the NSF *Proposal and Award Policies and Procedures Guide (PAPPG) Chapter II.E.4.*

**3. What is the relationship between Broader Impacts and Broadening Participation in Computing (BPC) and Engineering (BPE)?**

Broader Impacts speak to the societal impacts of the proposed research, including how the research will be disseminated to a broad and diverse audience. This should go beyond traditional academic publications and includes education and outreach from the research team spanning multiple levels of engagement.

Broader Impacts encompasses Broadening Participation in Computing and Engineering, which refers to a specific set of activities aimed at enhancing the community's awareness of and overcoming barriers to improving the diversity and/or inclusivity of the research community. These activities may be separate from the research project (but included as part of the CPS Frontier proposal) or may be integrated with it.

A Broadening Participation (BPC/BPE) plan should provide context (namely, the specific problem or need to be addressed), strategy (namely, the specific activities to be undertaken, along with the resources needed), target (the intended population including clear demographic data on that population), and a plan for meaningful assessment to measure progress, including metrics for success. Additional guidance on BPC is available at [https://www.nsf.gov/cise/bpc/White\\_Paper.pdf](https://www.nsf.gov/cise/bpc/White_Paper.pdf).

**4. Can my proposal fund international collaborators?**

Well-justified international collaborations can add significant value and leverage to the proposed research and/or education activities. NSF funds US researchers. International collaborators can be supported by outside means including the collaborator's international funding agency.

Consider the NSF-German Research Foundation (DFG) as an example of a collaboration. In this case, the proposal must highlight the joint nature (US as well as Germany) of the proposed research project, and how the integrated activity will be

conducted. For the NSF/DFG collaboration, proposals will be reviewed both by an NSF panel as well as through regular DFG processes.

**5. How does the multi-agency aspect of this program solicitation impact the proposal review process?**

All proposals must be submitted to NSF and must comply with all NSF CPS program requirements. Agencies may contribute panelists who will participate in the review process. The NSF merit review process will be followed, with focus on NSF's standard merit review criteria, Intellectual Merit and Broader Impact, plus any solicitation-specific review criteria. For additional information, see Section VI of the solicitation.

Note that partnering agencies are typically looking for proposals through the CPS program that they would normally not receive from their own agency-specific solicitations.

**6. Do we need permission from NSF in some form to submit a proposal targeted to a specific agency highlighted in the solicitation?**

No specific permission is required from NSF. If you wish to have the project explicitly considered by a different agency, be sure to speak in advance with the appropriate contact listed in the solicitation. Otherwise, the proposal will be considered by all agencies including NSF. Contact with another agency provides added visibility for both the program and the proposer.

In addition, proposals that are targeting a specific agency sponsorship should indicate so just above the keywords in the Project Summary, e.g., "Requested funding agency:" followed by that agency's abbreviated name, i.e., "NSF," "DHS," "DOT," "NIH," or "NIFA," but only if the proposers have previously communicated with a Program Officer from that agency and received permission or instruction to do so. Those not so designated will be considered for funding by all the joint sponsoring agencies.

**7. My project may require clinical trials for the Transition to Practice (TTP) option. Would this be appropriate if the project is co-funded by the National Institutes of Health (NIH)?**

NSF does not support clinical trials. Proposers interested in human subjects research that is aligned with NIH interests should begin with <https://grants.nih.gov/policy/humansubjects.htm> and <https://grants.nih.gov/policy/clinical-trials/definition.htm> and follow up with an NIH program officer with specifics of the proposal for advice on whether clinical trials would be appropriate.