



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 20-096

Frequently Asked Questions (FAQs) on [NSF 20-553](#) Solicitation

Please read the following important aspects of [NSF 20-553](#) solicitation

1. Disclaimer: The guidance included in the ERC 20-553 solicitation overrides any conflicting information included in ERC materials located elsewhere, including this FAQ
2. Webinar: slides and other materials are posted on the ERC program website
3. ERC PD Consultation: A limited number of consultation time slots are available with ERC program officers. Once the time slots expire, they will not be replenished.
4. To volunteer as an ERC Reviewer, please send an email to: nsferc@nsf.gov with "Reviewer" as the Subject.
5. The ERC Planning Grant competition is a separate competition, which should not be construed as a step towards an ERC proposal, and is not required to submit a proposal to the 20-553 competition.

GENERAL

1. [When is the ERC solicitation webinar scheduled?](#)
2. [When will the awards announcement for ERC 19-503 and feedback for those proposals in the current competition be made?](#)
3. [Is it possible to schedule a consultation with one of the ERC program directors?](#)
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6. [Are there any targeted research areas of interest to the NSF in this solicitation?](#)
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20. Can you explain the ERC 3-plane strategic diagram?
21. How should we incorporate societal impacts into the 3-plane-diagram?
22. Does the workforce development component have to have an entrepreneurship program, or can this be defined by the PIs?
23. Should the workforce development evaluation include evidence of expanding the workforce, upskilling, or both?
24. Is there a benefit to include workforce development that includes well positioned and qualified tech colleges?
25. How important is it for the workforce development to span from K-12 through continuing education or can it be more focused on certain educational stage?
26. What is the ideal TRL range for ERCs?
27. Does the ERC program have common templates for partnership (university and/or industry) agreements, outlining policy/legal rights/responsibilities or does each center define its own agreement?

28. Do we need to submit a post-doc training plan?
29. Is the diagram in the Flexibility in Management slide only meant as an example, or should the management structure follow the outline in the diagram?
30. Will resources be provided for evaluators?
31. Do we need to submit letters of support from deans of institutions of non-lead PIs? Is there a limitation to the number of these letters?
32. Are there any defined documents (like the ones published by NAE) that provide definition of high risk/high payoff research approach that is acceptable to ERC?

ELIGIBILITY

33. Can an Authorized Organizational Representative (AOR) from a university submit a Letter of Intent (and subsequent preliminary proposal) from more than one PI at that university? Additionally, can a PI submit multiple Letters of Intent or preliminary proposals?
34. Can industry representatives serve as a Non-Lead PI?
35. Are there any limits on the number of preliminary proposals per PI and co-PI?
36. The solicitation states "Only U.S. universities that grant engineering degrees at the undergraduate, masters, and doctoral engineering level may submit proposals as the lead university." Does this requirement apply to partner universities?
37. Are there restrictions on number of partners such as universities and industry members?
38. With regards to the requirement that each ERC core partner institution have at least three faculty participating in the ERC, are there any requirements on the type of faculty appointment, e.g., tenure track faculty?
39. What qualifies as a minority-serving institution for the Gen-4 ERCs?
40. How does the Gen-4 ERC distinguish between the role of the ERC Lead PI and role of the ERC Center Director?
41. Can an institution with a current ERC apply for the Gen-4 ERC grant?
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44. Can the lead PI be an Adjunct Faculty at the lead institution?

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56. What is the ideal number of partner universities on a center proposal?
57. Can the title of the ERC be changed after the LOI is submitted, at the time of the preliminary submission?
58. Do previous planning grants preclude you from applying in this cycle?
59. If we are a finalist in the current competition, how will this impact our proposal in the next competition, particularly the preproposal phase?

AWARD INFORMATION

60. What is the duration of an ERC award?
61. What is the estimated number of awards?
62. Can the contribution of the core universities be monetary and/or in-kind too?
63. For the cost share, what is the % for cash and in-kind?
64. Is cost share required for Years 6-10 of the ERC life? It seems that the solicitation does not explicitly address that.
65. How does EPSCOR fit into this program?
66. What is the anticipated start date of the ERC?

PROPOSALS AND PROPOSAL SUBMISSION

67. Can I use either FastLane or Grants.gov for my proposal submission?
68. If companies and federal laboratories collaborate on the proposal, would their monetary contribution have to be included in the budget of the full proposal or should it be enumerated separately?
69. For preliminary proposals, where should the committed Senior Personnel be listed?
70. What supplementary documentation is required to submit in an ERC Preliminary proposal?
71. What level of technical detail is expected in the 10-page project description for the preliminary proposal? A 30,000- foot view of the center or more detailed description?
72. Should we be writing the preliminary proposal as if the ERC will last for 10 years, or for the first 5-year period only? I understand that the cost share needs to be for 10 years but what about the vision?
73. What is the rationale behind not including the industry in the preliminary proposal, especially one is developing the ERC idea closely with the industry?
74. Should the project description for the preliminary proposal contain the Results from Prior NSF Support?
75. Will separately submitted collaborative proposals be accepted for this competition?
76. Is the submission deadline flexible?

REVIEW PROCESS

77. Who will review the preliminary proposals? Will it be panels of our peers, or will it be managed by NSF itself?
78. How will the review panels be organized, give the broad spectrum of potential topics?
79. In your review process, how are you planning to balance between honoring COIs and getting the most qualified reviewers? Because of the reputation of this ERC program, almost all research-active universities would probably submit a proposal or be part of a proposal.
80. During the review of preliminary proposals are the reviewers all engineers or will the panels be composed of interdisciplinary reviewers for example engineers, sociologist, biologist, economist, etc.?
81. Do you anticipate conducting site visits and then the "Blue Ribbon Panel" review based on the top Full proposals before making a funding decision?

82. What is the anticipated timeline for announcement of decisions from Preliminary Proposal reviews?
 83. How are reviewers being prepared so that those who are familiar with pre-Gen-4 (as PIs and/or reviewers) are not evaluating new proposals according to the old standards/points of view? For example, I can imagine some pre-Gen-4 PIs will struggle with the culture of inclusion piece or the fact that a PI can be non-engineering or non-tenure track.
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GENERAL

1. When is the ERC solicitation webinar scheduled?

The ERC team held a webinar on April 29, 2020 at 1:00 pm. The webinar reviewed the solicitation and addressed questions from potential ERC PIs. Further information on the webinar and the slide deck are posted on the ERC program:

https://www.nsf.gov/events/event_summ.jsp?cntn_id=300422&org=ENG

2. When will the awards announcement for ERC 19-503 and feedback for those proposals in the current competition be made?

The plan is to release the information within the current federal fiscal year.

3. Is it possible to schedule a consultation with one of the ERC program directors?

Yes, the ERC Program is offering the opportunity for a 30-minute teleconference (via Zoom) to discuss any specific ideas and questions from individual Principal Investigators (PIs). You will be asked to provide in advance (two days please) of the teleconference:

- a. An ERC 3-Plane Strategic Planning Chart for your proposed engineered system concept;
- b. A short description (approximately two pages) of the proposed ERC in response to the solicitation requirements.

In order to be fair and consistent to all the potential ERC teams, we plan to offer the same opportunities to all prospective PIs. We will be happy to review your concept and give you feedback on how well it fits the ERC Program.

Please follow the office hours link on the landing page of the Gen-4 ERC solicitation (https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505599) to schedule a 30-minute teleconference with one of the ERC Program Directors.

4. How do I sign up for ERC Program Director's office hours?

Please follow the link to sign up for ERC Program Director's office hours, which can be accessed from the landing page of the Gen-4 ERC solicitation (https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505599) and sign up: <https://my.timetrade.com/book/JPKQC>

5. Must the Lead PI of a preliminary proposal eventually be the Lead PI of the ERC full proposal?

Not necessarily. It is the lead university that is required to be in binding commitment throughout the ERC competition process and cannot be changed. It is up to the lead university's discretion to select the lead PI.

6. Are there any targeted research areas of interest to the NSF in this solicitation?

No, there are no priority areas established for the Gen-4 ERC solicitation. However, the ERC program is placing greater emphasis on high-risk/high-payoff research that leads to societal impact, including convergent approaches, engaging stakeholder communities, and strengthening team formation, in response to the National Academies of Sciences, Engineering, and Medicine (NASEM) 2017 study recommendations.

7. What are some of the lessons learned from the current competition that could be used as guidance for this round of Gen-4 ERC proposals? Are there specific issues/weaknesses that you would recommend to the community to pay specific attention to?

The major lesson is that the PIs should pay close attention to the solicitation. More specifically, those PIs that are familiar with the the Gen-3 ERC program need to take the time to understand the differences in the Gen-4 ERC.

8. Is there any priority to COVID-19 research topics?

The ERC solicitation is completely open to topical areas and has no set priorities in that regard.

9. To what extent are you looking for prior collaboration among team members?

Prior collaborations may indicate credible team appropriateness for the proposed project, but should not be used as a substitute for the deep expertise necessary for achieving the convergence goals.

10. What are the chief differences between ERCs and STCs or IUCRCs?

Appropriate solicitations such as [NSF 20-553](#) (for ERC), [NSF NSF 19-567](#) (for STC) and web-site (<https://iucrc.nsf.gov>) explain the important features of each program.

11. Should the ERC theme be driven by a major societal need or by a technology challenge or opportunity?

As stated in the solicitation, it should be driven by a significant societal need.

12. Can societal impact be global or only US?

The ERC vision guides discovery and technology to uniquely transform US prosperity, health, and/or security in 10 years. The vision should describe the compelling new idea and how it relates to national needs. In this context, the vision can be either US-only or global if the best way to solve the problem is to address it from the context of the global community.

13. How is convergence different from transdisciplinary or interdisciplinary approach?

Convergence implies deep integration of disciplines, and the notion overlaps with transdisciplinary research approach. As stated in the solicitation: "ERC convergent research is a deeply collaborative and cross/transdisciplinary effort that results in positive societal impact. Convergence blends multiple disciplines in engineering, sciences and social sciences in a coordinated, interdependent way and fosters robust collaborations needed for successful inquiry." Also, the solicitation has a link to more detailed discussion about convergent research approach: "A detailed explanation of the convergence concept can be found in a 2014 National Academies report, ["Convergence: Facilitating Transdisciplinary Integration of Life Sciences, Physical Sciences, Engineering and Beyond"](#). (<https://www.nae.edu/113283.aspx>)"

14. How do you provide evidence of trusted partnerships to NSF and review panel?

The evidence of trusted partnerships among the ERC PI team members comes through in the proposal, in the way the 4 foundational components of GEN-4 ERC and the participation institutions' integration are described in the proposal. Evidence of prior publications and presentations may also indicate prior partnerships. The leadership and management structure, organization and approach are also evidence of partnership, which can be informed by Science and Practice of Team Science.

15. Given that engineering is being redefined on many campuses, how prominent must engineering departments and faculty be in the proposed ERC?

As long as the lead institution can demonstrate that it grants engineering degrees at B.S., M.S., and Ph.D. levels, all proposals compete on equal footing.

16. If a convergent NSF ERC topic requires some minimum level of human/clinical and/or animal testing and validation, then how is that viewed and considered by the NSF ERC review panel?

NSF does not fund projects that fall within NIH's funding mission, for example clinical trials. While NIH does not fund technology development, the NSF review panel will be advised that human/clinical and/or animal testing and validation are important activities in an ERC, if relevant to the basic and translational research of the proposed ERC.

17. Does "diversity and inclusion" mean to involve multiple universities?

No. Diversity means the participation of people with diverse backgrounds including underrepresented groups (race, ethnicity, gender, people with disabilities, as well as first-generation students, rural areas, LGBTQ+, etc.). Culture of Inclusion means a philosophy in the center that stimulates an environment in which all participants are welcome and their voices are heard. The participation of multiple universities is addressed in the solicitation, including the participation of institutions that have a history of graduating underrepresented minorities.

18. Is there an implied value order for the areas of impact? In other words, is the impact on the Engineering Community more important than for the scientific community, and the societal impact the least important of the three.

It is up to the PI team to make the case for the circle of impact of the project.

19. What percentage of effort do you recommend be directed towards non-science and engineering disciplines?

There are no set percentages. It is up to the PI team to make the case in the proposal about how vision and plan for the 4 foundational components of the Gen-4 ERC, and how they will be integrated.

20. Can you explain the ERC 3-plane strategic diagram?

The ERC 3-plane diagram reflects the expectation that the center will be driven by an engineered system based on overarching vision that aims to address a significant societal challenge. The system is represented at the top plane that includes proof-of-concept system level testbeds. To enable the engineered system and the testbeds, technological advances will be required to overcome the barriers, and they are represented in the middle plane. The technological advances will require leading edge use-inspired fundamental research that is represented in the bottom plane (<http://erc-assoc.org/content/three-plane-diagram>).

21. How should we incorporate societal impacts into the 3-plane-diagram?

Given the societal impact motivates the Gen-4 ERC, it is naturally reflected in the top plane. However, elements of the societal impact may appear in the other planes as appropriate. For example, given that the societal impact is a driver, some projects may include ethics, policy, or social science research in the middle or bottom plane.

22. Does the workforce development component have to have an entrepreneurship program, or can this be defined by the PIs?

It can be defined by the PI, consistent with the vision of the center.

23. Should the workforce development evaluation include evidence of expanding the workforce, upskilling, or both?

It should be consistent with the vision of the center.

24. Is there a benefit to include workforce development that includes well positioned and qualified tech colleges?

It should be consistent with the vision of the center.

25. How important is it for the workforce development to span from K-12 through continuing education or can it be more focused on certain educational stage?

It should be consistent with the vision of the center, as long as it is consistent with the goals of the ERC solicitation: "A proposed evidence-based program for human capacity development for the future engineering and technical workforce must be described."

26. What is the ideal TRL range for ERCs?

The ERC's efforts are expected to be use-inspired basic research, rather than prescribed by TRLs.

27. Does the ERC program have common templates for partnership (university and/or industry) agreements, outlining policy/legal rights/responsibilities or does each center define its own agreement?

Each center defines its own.

28. Do we need to submit a post-doc training plan?

If the proposal includes post-docs, the post-doc mentorship plan is required.

29. Is the diagram in the Flexibility in Management slide only meant as an example, or should the management structure follow the outline in the diagram?

The management structure is flexible, but the centers are required to include the

Council of Deans, Student Leadership Council and Advisory Board(s) as appropriate.

30. Will resources be provided for evaluators?

The evaluators should be supported from the ERC's budget.

31. Do we need to submit letters of support from deans of institutions of non-lead PIs? Is there a limitation to the number of these letters?

Letters of commitment should be provided by the lead institution, all core partner institutions and any participating member organizations. See the section "Letters" in the solicitation.

32. Are there any defined documents (like the ones published by NAE) that provide definition of high risk/high payoff research approach that is acceptable to ERC?

NSF has a site that discusses "high-risk/high-payoff" or "potentially transformative" concept - see: https://www.nsf.gov/about/transformative_research/.

ELIGIBILITY

33. Can an Authorized Organizational Representative (AOR) from a university submit a Letter of Intent (and subsequent preliminary proposal) from more than one PI at that university? Additionally, can a PI submit multiple Letters of Intent or preliminary proposals?

Yes, both universities and PIs can submit more than one Letter of Intent (LOI) or preliminary proposal. Note, however, that the lead PI must be a faculty in the lead university.

34. Can industry representatives serve as a Non-Lead PI?

Yes.

35. Are there any limits on the number of preliminary proposals per PI and co-PI?

No. An individual may be listed as a PI or co-PI on multiple preliminary proposals.

36. The solicitation states "Only U.S. universities that grant engineering degrees at the undergraduate, masters, and doctoral engineering level may submit proposals as the lead university." Does this requirement apply to partner universities?

No, partner institutions are not required to grant such engineering degrees.

37. Are there restrictions on number of partners such as universities and industry

members?

No. A proposed ERC must be multi-institutional, with a lead university and additional domestic university core partners. However, there is no limit on the number of partners.

- 38. With regards to the requirement that each ERC core partner institution have at least three faculty participating in the ERC, are there any requirements on the type of faculty appointment, e.g., tenure track faculty?**

No, there are no requirements for the type of faculty appointment for the minimum three faculty members to qualify for a core partner institution.

- 39. What qualifies as a minority-serving institution for the Gen-4 ERCs?**

Minority serving institutions are those that serve historically underrepresented racial or ethnic minority populations. US law under Title III of the Higher Education Act of 1965 defines seven categories of MSI. The proposal should provide evidence that leads to a reasonable determination that an institution meets this requirement.

<https://fas.org/sgp/crs/misc/R43237.pdf>

- 40. How does the Gen-4 ERC distinguish between the role of the ERC Lead PI and role of the ERC Center Director?**

It is up to each ERC team to determine what model of leadership will best meet the goals of the Center. The ERC Lead PI and Center Director may be filled by the same person or split among personnel. In instances where more than one person fill these roles, the ERC PIs will determine the responsibilities of the Center Director.

- 41. Can an institution with a current ERC apply for the Gen-4 ERC grant?**

Yes, a university that leads a single ERC from Classes 2010-2017 is eligible for a Gen-4 ERC.

- 42. Are there any restrictions on the number of proposals one can submit as the lead institution?**

There is no restriction.

- 43. Can ERC PIs be research professors?**

The Lead PI must be a faculty member at the lead university. It is up to the university to decide whether a research professor can serve as a PI in an ERC proposal.

- 44. Can the lead PI be an Adjunct Faculty at the lead institution?**

See previous response.

45. Can there be two equal lead PIs?

There is no specific recommendation. It is up to the ERC to define its management structure. NSF systems allow proposers to identify one PI and up to four co-PIs. Per the NSF PAPPG, NSF does not infer any distinction in scientific stature among multiple PIs, whether referred to as PI or co-PI. If more than one, the first one listed will serve as the contact PI, with whom all communications between NSF program officials and the project relating to the scientific, technical, and budgetary aspects of the project should take place.

46. Is it preferred that the lead PI be a full professor?

There is no specific requirement. It is up to the ERC to make that decision.

47. Is it necessary that the ERC Director and/or Lead PI be from an Engineering School?

No, they are required to be from lead university but no requirement to be from an engineering school.

48. Does the ERC Director have to hold a terminal degree?

There is no specific requirement.

49. Can the ERC Director be hired specifically for that purpose, so would not be identified on the proposal?

The proposal only needs to clearly indicate the name of the Lead PI. The solicitation does not prescribe the leadership and management structure for the proposed ERC.

50. Is there a difference between the ERC Director and ERC Administrative Director?

Yes. The role of the ERC Administrative Director is stated in the solicitation. The role of ERC director is up to the proposing ERC PI team to define.

51. Does the Administrative Director need to be a faculty member?

No. The Administrative Director does not have to be a faculty member.

52. Does everyone involved in the proposal have to be from a BS/MS/PhD institution?

If "Everyone" is narrowly interpreted as a faculty member, they can be from any eligible university as stated in the solicitation.

53. Is there a limit on the number of PIs, or the number of PIs who are in engineering departments?

NSF systems allow proposers to identify 1 PI and up to 4 Co-PIs. There is no stipulation regarding the number of PIs who are in engineering departments or any disciplinary limitations.

54. **While multiple letters of intent can be submitted from the same institution, can there be multiple full proposal submissions from that same institution?**

Yes. It is allowed.

55. **What are the limits on international academic partner institutions?**

There is no limit.

56. **What is the ideal number of partner universities on a center proposal?**

There is no prescribed number of partner universities.

57. **Can the title of the ERC be changed after the LOI is submitted, at the time of the preliminary submission?**

Yes.

58. **Do previous planning grants preclude you from applying in this cycle?**

No. This ERC competition and the planning grants are completely independent activities.

59. **If we are a finalist in the current competition, how will this impact our proposal in the next competition, particularly the preproposal phase?**

There is absolutely no impact. These are independent competitions.

AWARD INFORMATION

60. **What is the duration of an ERC award?**

ERCs generally operate for ten years, with an initial award for the first five years and a second award based on performance and satisfactory review of a renewal proposal.

61. **What is the estimated number of awards?**

The ERC program plans to award up to 5 ERCs in the current competition [NSF 20-553](#), subject to the availability of funds.

62. **Can the contribution of the core universities be monetary and/or in-kind too?**

Yes. Cost share of lead and core partner institutions can be monetary or in-kind.

63. For the cost share, what is the % for cash and in-kind?

There is no prescribed split between cash and in-kind contributions to the cost-share.

64. Is cost share required for Years 6-10 of the ERC life? It seems that the solicitation does not explicitly address that.

Yes. Cost sharing is required for the entire duration of the ERC. It is understood that the availability of financial resources may present significant challenges for committing to ERC cost sharing for some smaller universities and colleges and universities that do not have a high level of research activity. Therefore, the ERC cost sharing requirements are graduated and vary by the basic classification categories of universities and colleges defined by the "Carnegie Foundation's Classification of Institutions of Higher Education" as described in the solicitation.

If the university is classified in more than one Carnegie category, it must cost share at the highest cost sharing category as described above. In addition, the Carnegie classification that is to be used is the classification in place at the LOI submission deadline and **will remain throughout the duration** of the competition and a subsequent award. Source: <http://carnegieclassifications.iu.edu/>

65. How does EPSCoR fit into this program?

The EPSCoR status doesn't affect the review of the ERC proposals.

66. What is the anticipated start date of the ERC?

NSF expects to make the ERC awards in the summer of 2022 with an anticipated start date of September 1, 2022.

PROPOSALS AND PROPOSAL SUBMISSION

67. Can I use either FastLane or Grants.gov for my proposal submission?

The letter of intent and preliminary proposals must be submitted via FastLane. Full proposals can be submitted through either FastLane or Grants.gov. The policy and procedural guidance contained in the *NSF Grants.gov Application Guide* should be followed when preparing and submitting full proposals to NSF via Grants.gov.

68. If companies and federal laboratories collaborate on the proposal, would their monetary contribution have to be included in the budget of the full proposal or should it be enumerated separately?

No, the ERC full proposal budget is only for the NSF funding. Note, however that

inclusion of voluntary committed cost sharing is prohibited. See cost sharing section in the solicitation.

69. For preliminary proposals, where should the committed Senior Personnel be listed?

The project description section of the preliminary proposal must start with a table that includes all committed ERC personnel: (1) Name of the Lead PI (and ERC Director, if different from the Lead PI) and Non-Lead PIs, (2) Institution(s), (3) Department(s), and (4) Most Relevant Field(s) of Expertise. In addition, please list all committed senior personnel. Do not identify members of advisory boards. The team table in the supplemental documents should include only those personnel who would receive NSF funds. This table is used to identify potential reviewer conflicts of interest.

70. What supplementary documentation is required to submit in an ERC Preliminary proposal?

The following proposal sections are required by the PAPPG and FastLane but not allowed in ERC preliminary proposals. Please insert the text "Not Applicable" into each of these sections so that FastLane will allow submission of the preliminary proposal: Current and Pending Support; Facilities, Equipment and Other Resources; Data Management Plan; Postdoctoral Mentoring Plan; and Budget Justification. The Budget should include only the necessary \$2 amount to allow proper FastLane processing.

DO NOT SUBMIT other documents, including Letters of Commitment or Collaboration from the domestic partner universities, prospective industrial members, or other future partners. The only allowed supplementary document is the required letter from the Dean of Engineering at the Lead Institution.

71. What level of technical detail is expected in the 10-page project description for the preliminary proposal? A 30,000- foot view of the center or more detailed description?

There is no *a-priori* expectation or recommendation on amount of technical detail in the preliminary proposal: the proposal should include enough information to convey the overall vision of the center while providing enough technical detail to allow the reviewers to evaluate how scientifically and technically sound the proposed center is.

72. Should we be writing the preliminary proposal as if the ERC will last for 10 years, or for the first 5-year period only? I understand that the cost share needs to be for 10 years but what about the vision?

The preliminary proposal should provide the vision for the entire 10 years of the center.

73. What is the rationale behind not including the industry in the preliminary proposal, especially one is developing the ERC idea closely with the industry?

The preliminary proposal, given that it is limited to only 10 pages, should focus on the overall vision and plan. Details such as stakeholders, including industries, are required in the full proposal.

74. Should the project description for the preliminary proposal contain the Results from Prior NSF Support?

"Results from Prior Support" is NOT a required section of the preliminary proposal. It is a required section for the full proposal and should follow the formatting in the NSF PAPPG Chapter II.C.2.d.iii.

75. Will separately submitted collaborative proposals be accepted for this competition?

No, separately submitted collaborative proposals will not be accepted for this competition. For each proposed ERC, only one submission can be made by the lead institution.

76. Is the submission deadline flexible?

No.

REVIEW PROCESS

77. Who will review the preliminary proposals? Will it be panels of our peers, or will it be managed by NSF itself?

All proposals will be reviewed according to NSF's merit review process. In particular, all proposals will be reviewed by panels of experts. The members of a specific panel will be researchers, educators, and practitioners from the community outside the NSF, with relevant knowledge to evaluate the proposals assigned to that panel.

78. How will the review panels be organized, give the broad spectrum of potential topics?

The proposals are clustered in groups (panels) with related topics, so that panel members can be brought in for a specific panel focused around thematic topic(s).

79. In your review process, how are you planning to balance between honoring COIs and getting the most qualified reviewers? Because of the reputation of this ERC program, almost all research-active universities would probably submit a proposal or be part of a proposal.

NSF has been successful in recruiting qualified reviewers who are not conflicted. One may be surprised that in every competition many research-intensive universities choose not to submit proposal(s) for a given competition. In addition, reviewers are tapped from government and industry research labs. Finally, international reviewers may be brought in as necessary.

80. **During the review of preliminary proposals are the reviewers all engineers or will the panels be composed of interdisciplinary reviewers for example engineers, sociologist, biologist, economist, etc.?**

All appropriate and necessary experts are brought in reviewing all aspects of the proposal. One should not assume that only engineers will be reviewing the proposals.

81. **Do you anticipate conducting site visits and then the "Blue Ribbon Panel" review based on the top Full proposals before making a funding decision?**

As indicated in the solicitation, the overall review process anticipates three different panel reviews and potential site visits.

82. **What is the anticipated timeline for announcement of decisions from Preliminary Proposal reviews?**

There is no set date to release the result of preliminary proposal reviews, but the NSF ERC program will ensure to provide adequate time to prepare full proposals.

83. **How are reviewers being prepared so that those who are familiar with pre-Gen-4 (as PIs and/or reviewers) are not evaluating new proposals according to the old standards/points of view? For example, I can imagine some pre-Gen-4 PIs will struggle with the culture of inclusion piece or the fact that a PI can be non-engineering or non-tenure track.**

The reviewers are prepared through webinars and explicit instructions so that they are in-tune with the expectations of Gen-4 ERC program (as reflected in the solicitation).