

NSF 20-035

Frequently Asked Questions (FAQs) for I-Corps Hubs Solicitation (NSF 20-529)

I-CORPS PROGRAM BASICS

- 1. Why is NSF changing the I-Corps Program?
- 2. What's new in the I-Corps Hub Solicitation (NSF 20-529)?
- 3. What is the difference between I-Corps Hubs and I-Corps Teams?
- 4. What is the National Innovation Network?
- 5. What are the major I-Corps Hub Activities?
- 6. What is the Teams program, and what are the differences between Hub-Connected Teams (HCT), Hub-Mentored Teams (HMT), and Hub-Recommended Teams (HRT)?
- 7. Who may submit a proposal?
- 8. Who may serve as PI?
- 9. Is there a limit on the number of proposals per organization? Per PI, co-PI, and Senior Personnel?
- 10. What are the faculty member requirements for the Principal, Partners, and Affiliates?
- 11. Can existing Nodes and Sites apply to be Hubs?
- 12. Can I include non-academic partners in my proposal?

PREPARING AN I-CORPS HUB PROPOSAL

- 13. Whom should I contact to discuss my ideas for an I-Corps Program proposal?
- 14. When is the proposal submission deadline?
- 15. What are the components of a Hub?
- 16. How do the Principal, Partners, and Affiliates work together?

- 17. Should the Principal, Partners, and Affiliates be located in the same geographic region?
- 18. Is there a limit to the number of Partners or Affiliates?
- 19. Is a signed MOU required at the time of submission of the proposal?
- 20. What should the MOU include?
- 21. What is the Hub Leadership Team?
- 22. What is the difference between the Hub Director, Hub Coordinator, Faculty Leads, Lead Instructor and Research Lead?

GUIDELINES FOR EXISTING NODES AND SITES

- 23. Will NSF release a new Node or Site solicitation in the future?
- 24. What will happen to existing Sites and Nodes?
- 25. What will happen to my existing I-Corps Site or Node funding?

EXPANDING THE POOL OF TEAMS FOR NATIONAL I-CORPS COHORTS

- 26. How does a Hub nominate a Team for a National Cohort?
- 27. Which processes need to be described in the proposal to support the Hub's nomination of a Team for a national cohort?
- 28. How can a Hub provide funding for a National I-Corps Team?

BUDGET PREPARATION

- 29. What is the maximum Hub award amount and duration?
- 30. Is the funding level the same for each year of the award?
- 31. How should the proposal budget be divided among the 4 Hub Activities?

GRANT MANAGEMENT

32. Do I need to submit an annual report?

I-CORPS PROGRAM BASICS

1. Why is NSF changing the I-Corps Program?

In 2017, the American Innovation and Competitiveness Act (AICA, Public Law 114-329,

Sec. 601) formally authorized and directed the expansion of the NSF I-Corps Program. This solicitation is published in support of that expansion. Through it, NSF seeks to evolve the current structure, in which NSF I-Corps Teams, Nodes, and Sites are funded through separate programs, toward a more integrated operational model (I-Corps Hubs) capable of sustained operation at the scope and scale required to support the expansion of the NSF I-Corps Program as directed by the AICA.

2. What's new in the I-Corps Hub Solicitation (NSF 20-529)?

- The I-Corps Hubs program has strengthened the requirement for tracking and assessment into program outcomes to meet the needs of the American Innovation and Competitiveness Act (AICA). Tracking and assessment of regional teams conducted by the Hubs will be incorporated into the NSF reporting requirements under the AICA.
- The I-Corps Hubs program has placed greater emphasis on expansion and development of the National Innovation Network through a new funding model. An I-Corps Hub consists of a Principal, at least two Partners, and at least five Affiliates. The Partners and Affiliates will be funded as sub-awards on Hub awards to the Principal. Memoranda of Understanding with Partners and Affiliates must be included in proposals.
- The I-Corps Hubs program has strengthened the requirement to support a
 diverse and inclusive community of innovators. Teams are encouraged to
 recruit diverse members at all levels, from I-Corps leadership to team composition.
 Hubs are required to submit a Diversity and Inclusion plan.
- The I-Corps Hubs program has new pathways for teams to qualify for participation in the national I-Corps Teams program. I-Corps Hubs serve as a translational channel for deep technologies offering the greatest opportunity for industrial and societal transformation. That channel now incorporates a direct funding pathway for Teams who have not identified Industry Mentors to participate in the national I-Corps Teams program. Supporting teams through this pathway will be included in the proposal through participant support costs.
- The proposal preparation instructions have been revised. Notably, proposers are allowed up to 20 pages for their Project Descriptions.
- The solicitation-specific review criteria have been updated to reflect the new I-Corps emphases.

3. What is the difference between I-Corps Hubs and I-Corps Teams?

An I-Corps Hub consists of a Principal, at least two Partners, and at least five Affiliate collaborating institutions. The Partners and Affiliates will be funded as subawards on the Hub award to the Principal. These collaborating institutions establish consortia spanning distinct geographic regions to facilitate interactions with entrepreneurial stakeholders

(mentors, advisors, investors, and others) in a localized ecosystem. The Hubs are intended to be flexible, with the capability for institutions to evolve in their roles.

I-Corps Teams comprise three individuals, consisting of an Entrepreneurial Lead (EL), an Industry Mentor (IM), and a Technical Lead (TL). Teams receive support in the form of entrepreneurial education, mentoring, and funding to accelerate the translation of knowledge derived from fundamental research into emerging products and services that can attract subsequent third-party funding.

4. What is the National Innovation Network?

The National Innovation Network will be a tightly connected, highly functional network of I-Corps Hubs spanning the Nation. NSF seeks to create the structure required to support the expansion of the NSF I-Corps Program throughout the community of NSF-funded researchers, the local and regional entrepreneurial communities, and other federal agencies. The resulting National Innovation Network will work collaboratively to create and sustain a national innovation ecosystem.

5. What are the major I-Corps Hub Activities?

There are four major activities:

Hub Activity 1 - National Innovation Network training: Deliver and execute regional I-Corps training at Partner and Affiliate institutions, and staff national instructional teams and Hub-mentored Teams.

Hub Activity 2 - Institutional expansion of the National Innovation Network: Deliver regional instruction at Affiliate institutions, and identify, recruit, and support new Teams for national cohorts.

Hub Activity 3 - Team expansion of the National Innovation Network: Recruit and support Teams with NSF lineage, Hub-Recommended Teams, and Hub-Mentored Teams.

Hub Activity 4 - National Innovation Network evaluation, assessment, and blue-sky research: Collect and analyze data to inform evaluation of the National Innovation Network, including advanced scholarship on topics related to national support of entrepreneurial ecosystems.

6. What is the Teams program, and what are the differences between Hub-Connected Teams (HCT), Hub-Mentored Teams (HMT), and Hub-Recommended Teams (HRT)?

The I-Corps Teams program provides education and funding to participate in the

national I-Corps program. The current/ active Teams solicitation is 18-515 (NSF 18-515).

The I-Corps Hubs expand the pool of entrepreneurial teams that may qualify for the Teams program. There are three types of teams:

A **Hub-Connected Team (HCT)** may require Hub guidance or information to advance to the national Teams program, but otherwise fulfills all requirements to qualify for the current/active I-Corps Teams Solicitation (NSF 18-515), including appropriate NSF lineage through a recent NSF-funded research award.

A **Hub-Mentored Team (HMT)** has at least two members connected directly to the technology development to serve as entrepreneurial lead and technical lead, but is lacking a mentor. The team's technology is eligible for the national I-Corps Teams program through a recent NSF-funded research award, as defined in the current/active I-Corps Teams Solicitation (NSF 18-515). A Hub-Mentored Team has a mentor provided by the Hub.

A **Hub-Recommended Team (HRT)** has a deep technology with a reasonable connection to the university community. Examples are teams with technologies developed with funding from other federal agencies, such as NIH or DoD; or a deep technology venture founded by recent Ph.D. graduates in which the faculty member has opted not to participate in the commercialization. An HRT is expected to be funded by the current/active I-Corps Teams Solicitation (NSF 18-515), referencing the NSF Hub award for eligibility.

All Teams must apply through the I-Corps Teams Solicitation (NSF 18-515) process. To participate in a national cohort:

- A HCT is funded through the current/active Teams solicitation (NSF 18-515), referencing its NSF research lineage for eligibility.
- A HMT has research lineage that qualifies for the Teams solicitation (NSF 18-515), but as it lacks a mentor, it is funded directly through the Hub and has a mentor provided by the Hub.
- A HRT is funded through the current/active Teams solicitation (NSF 18-515), referencing the Hub award for eligibility.

7. Who may submit a proposal?

Proposals may be submitted by Institutions of Higher Education (IHEs) - two- and fouryear IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members.

The solicitation provides special instructions for international branch campuses of U.S.

IHEs: If the proposal includes funding to be provided to an international branch campus of a U.S. institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.

8. Who may serve as PI?

The PI must be at the Principal institution (see the program solicitation, Section II: Program Description) and must be in a senior academic administrative role at the level of Dean or higher. Each Partner institution must identify a senior academic administrator at the level of Dean or higher to be included in Senior Personnel.

9. Is there a limit on the number of proposals per organization? Per PI, co-PI, and Senior Personnel?

Organizations only may be a participant (as Principal, Partner or Affiliate) in one proposal per deadline. An Individual may be PI, co-PI, or Senior Personnel of only one NSF I-Corps Hub proposal per deadline.

10. What are the faculty member requirements for the Principal, Partners, and Affiliates?

The Principal must have at least two faculty members; one as PI, and one as co-PI. Each Partner must have at least two faculty members serving as Senior Personnel. Each Affiliate must include at least one faculty member serving in a Senior Personnel role.

11. Can existing Nodes and Sites apply to be Hubs?

Yes, existing Nodes and Sites are encouraged to apply and configure under the Hub model.

12. Can I include non-academic partners in my proposal?

Non-academic partners are not allowed to participate as Lead, Partner, or Affiliates. However, non-academic partners are important collaborators in the Hub ecosystem.

PREPARING AN I-CORPS HUB PROPOSAL

13. Whom should I contact to discuss my ideas for an I-Corps Program proposal?

See the program website for any updates to the points of contact.

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NSF will host a series of webinars to be announced on the NSF I-Corps website (https://www.nsf.gov/news/special_reports/i-corps/) informing the community about the I-Corps Program Solicitation (NSF 20-529). Detailed information regarding the submission process will be provided as part of the webinar.

14. When is the proposal submission deadline?

The deadline to submit proposals is April 14, 2020 and the first Thursday in April, annually thereafter.

15. What are the components of a Hub?

A Hub consists of a Principal, at least two Partners, and at least five Affiliates. The Partners and Affiliates will be funded as subawards on Hub awards to the Principal.

16. How do the Principal, Partners, and Affiliates work together?

The Principal provides Hub headquarters. The Principal serves as the main source for instructors and mentors, serves as a source for Teams, and takes responsibility for the Hub's financial and reporting obligations. Partners serve as sources for Teams, instructors, and mentors for Hubs. Affiliates serve as sources for Teams and are a critical element of the Hub and the principal mechanism to distribute best practices and other resources from the I-Corps community to the entire nation.

17. Should the Principal, Partners, and Affiliates be located in the same geographic region?

Yes, Hubs should span distinct geographic regions to facilitate interactions with entrepreneurial stakeholders (mentors, advisors, investors, and others) in a localized ecosystem.

18. Is there a limit to the number of Partners or Affiliates?

There is no upper limit to the number of Hub Partners or Affiliates. A Hub is required to identify a minimum of five Affiliates in the proposal, with a plan of adding at least one per year during the life of the award such that each Hub comprises at least ten institutions during the life of the award.

19. Is a signed MOU required at the time of submission of the proposal?

An executed MOU is required between the Principal and the Partner or Affiliate at the time of submission and should be included in the proposal as a Supplementary

Document.

20. What should the MOU include?

Each MOU should demonstrate alignment with the overall NSF I-Corps Program vision and the specific mission of the Hub. The MOU should communicate a commitment to I-Corps from senior administration, provide overviews of each institution's strategic relationship within the Hub, and highlight important shared resources that will be made available within the Hub. The senior administrators should provide statements describing how the proposed Hub will align with the greater strategic directions of their respective institutions.

21. What is the Hub Leadership Team?

The Hub Leadership Team consists of the Hub Director (HD), Hub Coordinator (HC), Principal and Partner Faculty Leads, and Lead Instructor (LI) as described in the solicitation. The Hub Leadership team assumes responsibility for key activities in the Hub including strategic management, assessment, communications, team recruiting, hosting cohorts, faculty engagement, and I-Corps instructor development.

22. What is the difference between the Hub Director, Hub Coordinator, Faculty Leads, Lead Instructor and Research Lead?

- Hub Director (HD): An experienced faculty or staff member at the Principal with an affiliation to the Principal's innovation activities, responsible for strategic management and Hub operations, including data collection, communications, reporting, etc. Proposers are strongly encouraged to select individuals with prior commercialization experience as Hub Director.
- Hub Coordinator (HC): A Hub Coordinator should be identified to manage standardization of programs across Partners and Affiliates, team recruiting logistics, and hosting of regional cohorts. (Note that national cohorts are managed by NSF and should not be included in the Hub proposal budget.)
- Principal and Partner Faculty Leads: The Principal and Partners must each identify a single faculty member to serve as the Faculty Lead (FL), responsible for faculty engagement at his/her home institution. Faculty Leads with prior commercialization experience and affiliation with the institution's innovation activities are strongly encouraged. These FLs should be indicated as Senior Personnel in the budget. At the Principal, the individual serving as Hub Director also may serve as the FL, but this is not required.
- Lead Instructor (LI): An instructor experienced in teaching lean startup methodology and customer discovery principles must be named to recruit, staff, and vet potential instructors for regional and national cohorts. The individual serving as Hub Director also may serve as the Lead Instructor, but this is not

required.

 Research Lead: The Research Lead will lead a scholarly effort to understand and accelerate the growth of deep technology entrepreneurial ecosystems. The Research Lead must be a faculty member at the Principal or a Partner of the Hub and must be identified as Senior Personnel. The Hub Director or another FL may serve as the Research Lead, but this is not required.

GUIDELINES FOR EXISTING NODES AND SITES

23. Will NSF release a new Node or Site solicitation in the future?

Previous solicitations for I-Corps Nodes and Sites have now been archived. The I-Corps Hubs Program will support the National Innovation Network going forward.

24. What will happen to existing Sites and Nodes?

Current I-Corps Sites and Nodes will continue to operate under their existing awards until their stated end dates. Nodes and Sites will not be allowed to continue beyond their stated end dates; however, they are encouraged to participate in proposals to the I-Corps Hub Solicitation (NSF 20-529).

25. What will happen to my existing I-Corps Site or Node funding?

Current I-Corps Sites and Nodes will continue to operate with the funding provided through their awards. Site and Node awards will not be terminated prior to their stated end dates. Requests for no-cost extensions should be discussed with the cognizant Program Director.

EXPANDING THE POOL OF TEAMS FOR NATIONAL I-CORPS COHORTS

26. How does a Hub nominate a Team for a National Cohort?

All Teams must apply through the I-Corps Teams Solicitation (NSF 18-515) process.

- A Hub-Connected Team (HCT) is funded through the current/active Teams solicitation (NSF 18-515), referencing its research lineage for eligibility.
- A Hub-Mentored Team (HMT) has research lineage that qualifies for the Teams solicitation (NSF 18-515), but as it lacks a mentor, it is funded directly through the Hub and has a mentor provided by the Hub.
- A Hub-Recommended Team (HRT) is funded through the current/active Teams solicitation (NSF 18-515), referencing the Hub award for eligibility.

27. Which processes need to be described in the proposal to support the Hub's

nomination of a Team for a national cohort?

- Recruiting process. The proposal must include a description of proposed programs to identify and vet qualified Teams for national I-Corps cohorts. Each Hub is expected to generate 5 teams per year from the Principal, 4 teams from each Partner, and 3 teams per year per Affiliate.
- Synergistic organizational expansion. The proposal must include a description
 of proposed programs to identify synergistic partners such as non-profit trade
 associations, public incubators, private incubators, professional societies, and
 other potential sources of deep technology ventures.
- Screening experience. The proposal must include a description of the prior experience of the Principal and Partners in evaluating teams for appropriateness in deep technology ventures entrepreneurship education programs, such as competitions, prizes, and/or I-Corps teams.
- Mentor assignment. The proposal must include a description of the experience of the Principal and Partners in assigning or pairing mentors with teams in competitions, prizes, I-Corps activities, and related programs. The proposal must include a discussion of the pool from which mentors would be drawn for partnering with prospective teams and the Principal and/or Partner existing relationships with organizations serving as mentor talent pools (i.e., angel investment groups, mentor networks and services, and related groups).

28. How can a Hub provide funding for a National I-Corps Team?

Hubs provide funding support for National I-Corps Teams through the Hub-Mentored Teams channel (see question #26 above). For these teams, a minimum of \$55,000 per team should be allocated, with an expectation of generating at least 3 of these specific teams per year. This allocation may include a stipend for the entrepreneurial lead not to exceed \$15,000 and a stipend for the mentor not to exceed \$10,000.

BUDGET PREPARATION

29. What is the maximum Hub award amount and duration?

NSF I-Corps Hub awardees may receive up to \$3,000,000 per year for up to 5 years. All final funding levels are subject to the availability of funds.

30. Is the funding level the same for each year of the award?

The funding level will be approximately the same for each year of the award, depending on specific allocations for Hub Activities (see question #31 below) not to exceed \$3,000,000 per year. All final funding levels are subject to the availability of funds.

31. How should the proposal budget be divided among the 4 Hub Activities?

Activity 1: National Innovation Network Training.

A **maximum** of 55% of the budget may be allocated to Activity 1. Hub budgets should include funds for the Hub Leadership Team (Hub Director, Lead Instructor, Principal Faculty Lead, and Partner Institutional Faculty Leads) to attend two separate meetings: 1) the annual National Innovation Network meeting, to be held in the Washington, DC area; and 2) an annual meeting of the Hub, to be held in the Hub's home region or a location agreed upon by the Principal, Partners, and Affiliates.

Activity 2: Institutional expansion of the National Innovation Network

A **minimum** of 15% of the budget must be allocated to Activity 2 activities supporting Hub Affiliates. Hub budgets should include support for each Affiliate co-PI (serving as an Affiliate Faculty Lead) to attend two separate meetings: 1) the annual National Innovation Network meeting, to be held in the Washington, DC area; and 2) an annual meeting of the Hub, to be held in the Hub's home region or a location agreed upon by the Principal, Partners, and Affiliates.

Activity 3: Team expansion of the National Innovation Network

A **minimum** of 15% of the budget must be allocated to Activity 3. These activities include but are not limited to hosting information sessions, travel as needed (e.g., technical conferences with innovation sessions, and universities unaffiliated with I-Corps); and delivery of abbreviated I-Corps courses. All programs should be executed with a goal of identifying scientists and engineers with potential deep technology ventures assisting in recruiting complete I-Corps teams, and assessing the team's suitability for the National I-Corps program.

Funding for Hub-Mentored Teams (HMTs) should be included as part of Activity 3. The HMT's award will be provided through the Hub. For these teams, a minimum of \$55,000 per team should be allocated, with an expectation of generating at least 3 of these specific teams per year. This allocation may include a stipend for the entrepreneurial lead not to exceed \$15,000 and a stipend for the mentor not to exceed \$10,000. Participant Support Costs should be calculated from this allocation to include registration for the National I-Corps course, travel to the course's in-person meetings, and travel for customer discovery including conference fees.

No stipends, salary, or other compensation should be budgeted as Participant Support Costs.

Activity 4: National Innovation Network evaluation, assessment, and blue-sky research

A **minimum** of 15% of the budget must be allocated to Activity 4 activities supporting

scholarship studying the national innovation ecosystem. The budget should include funds for all Hub Research Leads to attend one annual research meeting (to be held in the Washington, DC area) each year.

GRANT MANAGEMENT

32. Do I need to submit an annual report?

The Principal Investigator must submit an annual project report to the cognizant Program Officer no later than 90 days **prior** to the end of the current budget period. Funding for the following year may not be provided until submission and approval of the annual report. No later than 120 days following expiration of a grant, the PI also is required to submit a final project report, and a project outcomes report for the general public.