

NATIONAL SCIENCE FOUNDATION 2415 EISENHOWER AVENUE ALEXANDRIA, VIRGINIA 22314

NSF 18-057

Frequently Asked Questions (FAQs) for I-Corps[™] Team Solicitation

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ELIGIBILITY

1. Whom should I contact to discuss my ideas for an I-Corps[™] Teams Program proposal?

The primary contact for most I-Corps Teams questions should be Cindy Walker Peach: (703) 292-8437, email: crwalker@nsf.gov.

Teams may wish to discuss the commercial readiness of their effort with a Topic Specific I-Corps Program Officer:

- BIO Robert Fleischmann, telephone: (703) 292-7191, email: rfleisch@nsf.gov
- CISE Anita La Salle, telephone: (703) 292-5006, email: alasalle@nsf.gov
- CISE Pamela McCauley, telephone: (703) 292-4505, email: pamccaul@nsf.gov
- CISE Vipin Chaudhary, telephone: (703) 292-2254, email: vipchaud@nsf.gov
- EHR Abiodun Ilumoka, telephone: (703) 292-2703, email: ailumoka@nsf.gov
- ENG Cindy WalkerPeach: (703) 292-8437, email: crwalker@nsf.gov
- ENG Nancy Kamei, telephone: (703) 292-7236, email: nkamei@nsf.gov
- GEO Kandace Binkley, telephone: (703) 292-7577, email: kbinkley@nsf.gov
- MPS John Schlueter, telephone: (703) 292-7766, email: jschluet@nsf.gov
- SBE Chu-hsiang Chang, telephone: (703) 292-7820, email: cchang@nsf.gov

2. When is the proposal deadline?

There are no set deadlines. Teams are interviewed on a rolling basis. Typically, the interview process starts approximately 6 months prior to a cohort's start date and continues until all cohort slots are filled.

3. What types of NSF grants will establish the I-Corps Team's eligibility?

To be eligible to pursue funding under an I-Corps Teams award, applicants must have received an award from NSF (in a scientific or engineering field relevant to the I-Corps Team's proposed innovation) that is currently active or that has been active within five years from the date of the I-Corps Teams proposal submission. The prior award could range from a modest single-investigator award to a large, distributed center and could also could include awards involving students such as REU Sites, provided the technology developed under the grant has a clear link to the innovation being explored

in the I-Corps project.

It is also possible for a team to apply based on participation in a local or regional NSFsupported I-Corps training run by a current I-Corps Site or Node. In that case, the NSF grant that establishes the team's I-Corps Teams Program eligibility will be the NSF I-Corps Site or Node Grant. If a team is applying through this route, a senior member of that I-Corps Site or Node staff must provide a recommendation for the team's consideration in the I-Corps Teams program. The technology underlying the effort will also need to be consistent with NSF requirements on intellectual merit and represent a significant technical innovation.

4. Must an I-Corps Team member have been a Principal Investigator (PI) on the research grant that establishes the team's eligibility?

The lineage of the prior award extends to the PI, Co-PIs, senior personnel, post docs, professional staff or others who were supported under the award.

5. Are there Intellectual Property (IP) ownership requirements for participation in I-Corps?

Most universities have a policy that specifies who owns the IP for funded and unfunded research carried out on campuses, whether the researcher is a faculty member, post doc, full-time researcher, graduate student, or undergraduate student. It is important to explore your institution's policies since such policies vary widely. As far as NSF I-Corps is concerned, the IP for your technology should be owned by either a member(s) of the I-Corps Team or by the sponsoring university. NSF I-Corps will not typically fund teams whose IP is assigned to a third party.

6. How do I get started with applying for the I-Corps Teams Program?

To start the application process the I-Corps Team should submit the Executive Summary through the I-Corps Teams Web Form for review.

As described in the solicitation under Section II-PROGRAM DESCRIPTION, here are the next steps to start the process to be considered for the I-Corps Teams Program:

- A. Form your team (see below)
- B. Prepare any information that will need to be included in the Web Form, including:
 - Team Members. Composition and roles (Entrepreneurial Lead, Technical Lead, I-Corps Teams Mentor, plus any additional co-Entrepreneurial Leads, co-Technical Leads, or co-I-Corps Teams Mentors) of the team members proposing to undertake the commercialization feasibility research. Provide a few sentences on each team member describing their current position and background relevant to the proposed I-Corps project.

- The Entrepreneurial Lead (EL) could be a Post-Doctoral scholar, graduate or other student or other personnel with relevant knowledge of the technology and a deep commitment to investigate the commercial landscape surrounding the innovation. The Entrepreneurial Lead should also be capable and have the will to support the transition of the technology, should the I-Corps project demonstrate the potential for commercial viability.
- The I-Corps Teams Mentor (IM) will typically be an experienced entrepreneur with proximity to the institution and experience in transitioning technology out of Academic labs. The I-Corps Teams Mentor must be a third-party resource and may be recommended by the proposing institution. The I-Corps Mentor will be responsible for advising the team through the I-Corps process and helping the team navigate the business ecosystem in the specific application area(s).
- The Technical Lead (TL) will typically be a faculty member, senior research scientist or postdoctoral scholar with deep and direct technical expertise in the actual core technology about which the I-Corps team is exploring commercial potential. Typically the Technical Lead will also serve as the proposal Principal Investigator (PI).
- Proposal Principal Investigator. Proposal Principal Investigator (PI) and a brief description of their connection to the team
- Lineage. Relevant current/previous NSF awards establishing team eligibility
- **Technology**. Brief description of the core technology
- Application/Market. Brief description of the potential commercial applications
- Current Plan. Brief description of the current commercialization plan
- C. Complete the I-Corps Teams Web Form for review.

7. Do all team members need to be U.S. citizens?

There are no special citizenships requirements for I-Corps Team members.

8. The innovation did not result from a recent NSF research grant. Can I still apply for I-Corps?

It is possible for a team to apply based on participation in a local or regional NSFsupported I-Corps training run by a current I-Corps Site or Node. In that case, the NSF grant that establishes the team's I-Corps Teams Program eligibility will be the NSF I-Corps Site or Node Grant. If a team is applying through this route a senior member of that I-Corps Site or Node staff must provide a recommendation for the team's consideration in the national I-Corps program. The technology underlying the effort will also need to be consistent with NSF requirements on intellectual merit and represent a significant technical innovation.

FORMING AN I-CORPS TEAM

9. Can we have more than three team members?

Teams with more than four team members are generally not supported. A second Entrepreneurial Lead is the most common additional team member. It is not allowed to have two team members split the time commitment or attendance requirements. All team members are expected to be full participants.

10. How do I find an I-Corps Mentor for my team?

Finding a good I-Corps Mentor can be challenging but building a strong network and finding and recruiting advisors to a Team are key to the success of an entrepreneur. We recommend that Teams first explore opportunities for recruiting Mentors through offices at their own institutions like the Innovation Center or Incubator, Alumni Office, Business or Industry Advisory Boards, or other locally or regionally based organizations or professionals engaged in commercialization. Teams are also encouraged to reach out to NSF I-Corps Site and Node grant recipients in their region they often have their own networks of mentors and may be able to assist.

11. Does the I-Corps Mentor need to be physically located near the Team?

As a member of the I-Corps Team, Mentors are deeply involved during the seven-week period of the curriculum. It is important that all members of the Team be geographically near each other. Under rare circumstances exceptions can be made.

12. What is the role of the I-Corps Mentor?

I-Corps Mentors are advisors that have two primary roles. First, by being a third-party resource for the team, the mentor can help the team recognize and reduce confirmation bias during the customer discovery process. In this role the I-Corps Mentor is in some ways an extension of the I-Corps Teaching Team in helping the team absorb and apply the relevant lessons. Second, the I-Corps Mentor should be someone that has industry contacts and knows the ecosystem of the target market area. I-Corps Teams will be interviewing more than 100 potential customers and potential partners in person. A good mentor can help the team find the right people to interview.

13. What is the difference between the team Technical Lead and the Principal Investigator?

Technical Lead is a specific role on the I-Corps Team and Principal Investigator (PI) is a specific role on the NSF proposal and award. Typically, these roles will be filled by the

same person. The roles are distinct to add flexibility for the Team. For instance, there may be a situation where a Post Doc is serving as a Technical Lead on the team but may not be eligible to be a PI on a NSF proposal. In this case the team can have someone else at the academic institution serve as the proposal and award PI.

14. What are the selection criteria for teams that apply?

Some areas of consideration include team composition, potential impact on the market, and overall time horizon to impact.

- Team composition. Examples of areas that could be considered in this criterion include the following:
 - The team structure should conform to the requirements described in the solicitation.
 - Teams applying after participation in a local or regional I-Corps program should demonstrate clear customer discovery learning from that program.
 - Teams should be able to articulate an initial, preliminary vision for the commercialization of the technology. This will inform a clear starting point in the I-Corps Teams program's customer discovery process.
 - Team members should have sufficient time to participate in the I-Corps Teams training.
 - Team members should understand their roles on the I-Corps team and express willingness to support the full cohort.
- Potential impact on market. Examples of areas that could be consider in this criterion include the following:
 - The technology should be sufficiently developed or demonstrated to motivate the exploration of commercial potential.
 - The team should be able to articulate a clear hypothesis on the problems in the market that the innovation could address.
 - The team should be able to articulate a clear hypothesis on key market stakeholders.
 - The team should be able to articulate a clear hypothesis on the value the innovation could offer those stakeholders.
- Time horizon to impact. Examples of areas that could be consider in this criterion include the following:
 - There should be sufficient questions remaining regarding the determination of product-market fit.
 - The envisioned time to market should be sufficiently short to motivate the team's exploration of commercial potential and reflect the urgency of the team and project's prompt participation in I-Corps.
 - The technology should be positioned such that a meaningful go / no-go decision can be envisioned at the end of the I-Corps Teams training.

I-CORPS TEAMS PROGRAM CURRICULUM

15. What is the I-Corps Curriculum?

The I-Corps Teams Curriculum provides real-world, hands-on, immersive learning about what it takes to evaluate commercial opportunity around the innovation. The curriculum consists of an approximately seven-week program that involves an in-person entrepreneurial curriculum immersion Kickoff, a weekly online curriculum, and an in-person Lessons Learned report-out. The Kickoff and Lessons learned are both held onsite at the cohort location. The weekly online sessions are a combination of instructor and team presentations and active interactions between the teams, instructors and other teams in the cohort. In addition to scheduled cohort events, the main activity of the program is customer discovery where the Team leaves the lab to evaluate potential product-market fit and the wider business model. At the end of the curriculum, Teams are expected to have performed at least one hundred (100) face-to-face interviews with potential customers and potential partners from their proposed target market(s). The team's progress in customer discovery will be shared with the entire cohort to facilitate group learning.

16. When are the next I-Corps cohorts?

The schedule for upcoming I-Corps cohorts can be found on the main I-Corps Teams website. https://www.nsf.gov/news/special_reports/i-corps/curriculum.jsp.

17. What are the time commitment requirements for the program? What about my academic responsibilities?

The I-Corps Curriculum is rigorous and requires a substantial time commitment. Teams members are each expected to spend a minimum of 15 hours per week participating and preparing for the scheduled I-Corps events and doing active customer discovery. The seven-week I-Corps curriculum is demanding and time-consuming and best scheduled when Team members have minimal academic commitments. As a "rule of thumb," NSF recommends that the TL, EL and IM be scheduled to teach or enroll in no more than one course during the I-Corps program.

18. Will I get to choose which I-Corps cohort my team will join?

A team that is invited to submit an I-Corps Teams proposal will be asked to choose a cohort to attend, subject to availability and approval from a Cognizant I-Corps program officer.

19. How should I prepare for my cohort?

After registering for the I-Corps cohort (typically around 4 weeks prior to the start of the cohort) you will receive information on the cohort's logistics, syllabus and required reading and videos.

- 1. Read the entire syllabus
- 2. Make interview appointments with 15 potential customers these must be inperson interviews at times that do not conflict with the scheduled cohort Kickoff events
- 3. Watch the specified videos
- 4. Do the specified reading
- 5. Prepare an initial business model canvas using the specified online tool
- 6. Prepare a list of initial hypotheses including: A) Target customer, B) Target industry, C) Potential value propositions for A and B, and D) Target and total market sizes

20. What is the best way to get my team aligned with the program's expectations?

Search the NSF website (https://www.nsf.gov/awardsearch/) for former participants in your area. Reach out to those individuals and ask for advice on how to succeed in I-Corps.

21. What happens after the cohort?

Members of the team are expected to continue with the customer discovery work after the cohort ends in order to more thoroughly explore the commercial landscape and potential for a viable business model. If a team has a clear and validated vision for a Minimum Viable Product, with written approval from a Cognizant I-Corps program officer, it may be possible to accommodate some limited (typically no more than \$5,000 total), well-motivated R&D work after the end of the I-Corps Curriculum.

BUDGET PREPARATION

22. Can I include prototyping work in the I-Corps Teams proposal budget?

Expenses for technical R&D work, which may include facility fees or materials and supplies, should not be included in the I-Corps Teams proposal budget. The primary use for I-Corps Team grant will be travel for customer discovery. With written approval from a Cognizant I-Corps program officer it may be possible to accommodate some limited (typically no more than \$5,000 total), well-motivated R&D work after the end of the I-Corps Curriculum. However, this should not be budgeted in the proposal.

23. I only need funds for prototyping and technical R&D. Is I-Corps a good fit?

The applicant may want to consider the NSF Small Business Innovation Research

(SBIR), Small Business Technology Transfer (STTR), or the Partnerships for Innovation opportunities instead of I-Corps.

24. Can the I-Corps Teams grant be used to pay legal expenses for company incorporation or IP protection?

These types of expenses are not allowed under the I-Corps grant.

25. Can the mentor receive a stipend on the I-Corps Teams grant?

No. I-Corps mentors cannot be paid a stipend or consultancy fees under the I-Corps grant.

26. Can the PI receive a stipend on the I-Corps Teams grant?

No. I-Corps PIs are not typically paid under the I-Corps grant.

27. Can the EL receive a stipend on the I-Corps Teams grant?

The I-Corps Teams grant can typically accommodate short-term, modest support for the EL.

28. Can the I-Corps Teams grant be used to attend academic conferences?

Attendance of an academic conference using I-Corps grant funds is allowed only with written approval of a Cognizant I-Corps Program Officer. Such approval is typically not granted. The goal of the I-Corps Teams grant is to facilitate customer discovery of commercial market opportunities.

29. Can the I-Corps Teams grant be used to travel internationally?

International travel with I-Corps grant funds is allowed only with written approval of a Cognizant I-Corps Program Officer. The purpose of the I-Corps teams grant is to facilitate customer discovery of commercial market opportunities.

30. Can the I-Corps Teams grant be used to attend industry trade shows?

Yes. Trade shows can be a great way to interact with a large number of potential customers. I-Corps grant funds can be used to support the team's travel to industry trade shows in the United States. Travel to international trade shows must receive written approval from a Cognizant I-Corps Program Officer.

31. Can the I-Corps Teams grant be used for customer discovery trips to local, regional or national customers?

Yes. Domestic travel to do customer discovery is a normal part of the I-Corps customer

discovery activity. All forms of transportation and accommodation (within GSA rates) are allowable for all team members included in the I-Corps award.

32. Can individuals who are not or did not participate in the I-Corps program attend events or conduct customer discovery on behalf of the I-Corps team?

No. New team members on an I-Corps teams award must be approved by NSF both during and after a cohort finishes.

GRANT MANAGEMENT

33. What should I include in my annual and/or final report?

The report needs to thoroughly detail the work conducted under the I-Corps Award, the progress and learning made by the team in the reporting period, the outcomes of the work, and the project's vision post-award. It should be clear what customer segments were explored, what pivots were made and how the team sees their value proposition (or the rest of the business model canvas) at the conclusion of the award.

Please be sure to highlight any outcomes from the I-Corps award. These may include outcomes such as:

- Was a startup formed? Who from the I-Corps Team is involved and what roles do they currently have in the startup? Has the startup received any investment or nondilutive capital?
- Did the EL receive an employment offer based on connections made during I-Corps?
- Has the PI's research focus changed based on the I-Corps learning?
- Has the PI incorporated Lean Startup methodologies into their classrooms?

34. Can I submit a request for a no-cost extension?

Yes. A request for a "grantee requested no cost extension" can be submitted via FastLane. Please note that subsequent no cost extension requests will not typically be approved.

35. Can NSF help get my team get reimbursed for customer discovery expenses?

The intent of an NSF I-Corps Teams award is to fund the processes associated with Team engagement in the I-Corps immersion program, which focuses on customer discovery, and follow-on activities which also focus on customer discovery. These expenses include travel, attendance at trade shows, and other costs incurred when teams interview potential customers. The I-Corps Teams grant cannot be used to support legal expenses or compensating "potential customers" for their time.

36. How do I request approval for international travel or travel to an academic conference under the I-Corps Teams grant?

You must request and receive approval in advance of expending funds for these types of activities.

Send the following information to your I-Corps Teams award program officer:

- 1. Proposal/Award Number and name of Proposal PI
- 2. Approximate Dates/Locations for proposed travel
- 3. Event Name and link to site (if applicable)
- 4. Who will be attending
- 5. Is anyone on the team presenting a paper or other academic presentation
- 6. Who will you be interviewing
- 7. What hypotheses will you be testing
- 8. How will you report on the trip outcomes in your annual/final reports to NSF
- 9. What is the rough budget breakdown for the travel

The I-Corps Teams award program officer may have additional questions for the team in considering the request.

37. How do I request approval for prototype R&D work under the I-Corps Teams grant?

The Cognizant I-Corps Program Officer MUST give advance approval to use the I-Corps grant on technical R&D work (request cannot exceed \$5,000). This approval will only be considered after the team's successful completion of the I-Corps cohort and with clear motivation from the I-Corps customer discovery work. You are expected to continue the customer discovery work even after the end of the cohort – supporting customer discovery is the main purpose of the I-Corps grant. If you would like to use up to \$5,000 on the technical R&D work please send your I-Corps Team award program officer an email outlining:

- 1. Proposal/Award Number and name of Proposal PI
- 2. What is the goal of the work?
- 3. What type of work will be done and what is the work plan?
- 4. How is this clearly motivated by the I-Corps customer discovery work?
- 5. What is the budget breakdown of these proposed expenses (table of expenses and vendors)?

The I-Corps Teams award program officer may have additional questions for the team in considering the request.