

F.16 INNOVATION CORPS PILOT

NOTICE: Neither a Step-1 proposal nor a notice of intent is requested. Proposals will be internally reviewed, so proposals need not be redacted, and no separate "Total Budget" is requested. No "Open Science and Data Management Plans" are requested, see Section 4.1. Short course proposals may be submitted at any time but will be reviewed on a regular schedule, see Table F.16-1 for details. Questions and answers will be posted on the NSPIRES page for this program element, under the heading "Other documents".

1. Funding Opportunity Description

1.1 Introduction

The NASA Innovation Corps (I-Corps) Pilot is intended to provide support for participation in the National Science Foundation (NSF) Innovation Corps (I-Corps™) Program to train faculty, students in higher education, post-docs, and other researchers in innovation and entrepreneurship skills. The pilot employs education through courses to guide teams in the process of developing a business model while supporting teams as they explore the commercial potential of their research. NASA's Science Mission Directorate and Space Technology Mission Directorate are partnering to expand the agency's participation by leveraging the infrastructure of NSF's I-Corps Program and National Innovation Network.

Proposals may only be submitted by non-profit research institutions and Institutions of Higher Education (IHEs), including community colleges, see Section 2.1 regarding eligibility.

1.2 Pilot Goal

The goal of this NASA I-Corps Pilot is to give teams the opportunity to develop the following capabilities:

- Informed decision-making to facilitate research and/or technology transitions and new NASA funding opportunities.
- Facilitated focus and inspiration on the commercial potential of proposed research and/or technology.
- Advanced workforce development opportunities in science missions and space technology by preparing students with a foundational education in entrepreneurship.
- Enhanced entrepreneurial mindsets.

Awards for two types of courses are possible: a "Short Course" and a "National course". All pilot teams are required to take a Short Course offered by an NSF I-Corps sponsored Hub and should apply through this program element prior to registering for the Short Course. Awarded teams that complete a Short Course may then apply for funds for the National Course.

1.2.1 *Key Features*

The NASA I-Corps Pilot is aimed to accelerate the translation of promising ideas from the lab to the marketplace. All selected pilot teams are required to take a Regional Short Course (hereinafter Short Course) offered by an [NSF I-Corps sponsored Hub](#). While the NSF Hubs do not provide geographic representation for all regions of the U.S., teams are encouraged to participate in the Hubs of nearest geographic proximity. Courses are provided both virtually and in-person.

Teams that complete the Short Course may then propose to this program element to take the National Course, see below [Table F.16-4](#). The [NSF I-Corps National Course](#) (referred to on the NSF website as "I-Corps Cohorts") is offered throughout the year. The steps for National Course participation are described in other sections, including [Table F.16-4](#). Courses have limited capacity, and each course will be comprised of teams that are working on a broad range of topics (i.e., not exclusively science missions and space technologies).

1.2.2 *Team Composition*

Each Short Course proposal requires a minimum of two (2) team members: a Technical Lead and an Entrepreneurial Lead. The Technical Lead serves as the Principal Investigator (PI) of the award, the Entrepreneurial Lead should be listed as a Co-I. The Technical Lead provides a deep and direct technical expertise in the relevant core research and/or technology area the I-Corps team is exploring. The Entrepreneurial Lead has relevant knowledge of the research and/or technology area and guides translation of the research and/or technology if the project demonstrates the potential for commercial viability. For Short Course participation, the team shall comply with the Hub's Short Course requirements regarding the involvement of an Industry Mentor; see Section 3 to contact the relevant Hub that you may apply to for guidance on their team requirements. The Industry Mentor is responsible for advising the team through the duration of the course(s) and usually has contacts in the industry area being explored. For the National Course, the proposal requires a minimum of three (3) team members: an Industry Mentor must be identified in addition to the Technical Lead and an Entrepreneurial Lead. The Industry Mentor must be listed as a collaborator. In cases where there are more than two team members, they shall be listed as Co-Is.

1.2.3 *Summary of Training Activities*

All team members of a NASA I-Corps Pilot award are required to participate in the entire Short Course and, if selected, the entire National Course. The curriculum, delivered exclusively in an online format, includes a kick-off meeting with entrepreneurial immersion training, a weekly training meeting, weekly office hours with I-Corps instructors, and a lessons-learned closing presentation. The main activity of the program is to develop a business model through customer discovery, where the team leaves the lab to evaluate potential product-market fit. A team will conduct many interviews with potential customers during both courses. NASA I-Corps Pilot teams are encouraged to travel for in-person customer interviews when feasible. At the end of the Short Course curriculum, teams are expected to comply with their course curriculum and typically conduct at least thirty (30) virtual or in-person interviews with potential customers (including government agencies) from their proposed target market(s). At the

end of the National Course, teams are expected to have performed an additional one hundred (100) virtual or in-person interviews with potential customers (including government agencies) from their proposed target market(s). The interviews provide teams with the customer data needed to refine their hypotheses – ultimately resulting in a more viable business model.

2. Award Information

Through the NASA I-Corps Pilot, NASA will fund participation in two types of NSF I-Corps courses as grants to non-profit research institutions and IHEs. The funding for the National course, if applicable, may be either an augmentation to the existing short course grant, or it may be a new award, depending on the timing. All pilot teams are required to take a Short Course offered by an NSF I-Corps sponsored Hub. The funding for a NASA I-Corps Pilot Short Course award may not exceed \$10,000. Awarded teams that complete a Short Course may have the opportunity to apply for funds to support their involvement in the I-Corps National Course. The funding for a NASA I-Corps Pilot National Course award may not exceed \$40,000. NASA expects to make approximately 12-30 Short Course grants and approximately 2-4 National Course grants from the proposals to this program element. Actual program budget and number of awards are subject to appropriations and the availability of funds.

2.1 Eligibility

Proposals may only be submitted by non-profit research institutions and IHEs, including community colleges. Federally Funded Research and Development Centers (FFRDCs) are also not eligible to propose. However, if a scientist, engineer or educator has a joint appointment with an IHEs or a non-profit research institution and a Federal agency then they may submit proposals through the IHEs or a non-profit research institution. A Technical Lead may not hold more than one currently active NASA I-Corps Pilot Short Course or National Course award. Proposing team(s) need not have received a previous NASA award to apply. However, proposals must show alignment with SMD and/or STMD strategic objectives (see Section 4.2). A team that applies to a NASA I-Corps Short Course that is not selected may re-apply in subsequent review cycles.

3. Proposal and Submission Information

Application for funding requires that:

- 1) All members of the proposal team have an active account in NSPIRES. Users registering for a new account should go to <https://nspires.nasaprs.com/external/> and click on the Registration Information tab.
- 2) The PI must be affiliated with an eligible organization registered in NSPIRES.
- 3) Short Course proposals may be submitted at any time during the open period of this ROSES but will be reviewed on a regular schedule that correlates to the Short Course schedule, see Table F.16-1.

Table F.16-1 Timeline to Participate in Short Course

Short Course proposals may be submitted at any time, until March 28, 2025

The proposal cut-offs for the review cycles timed to correspond to course dates are:
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(a) Summer Funding: May 17, 2024 (b) Fall/Winter Funding: September 13, 2024; (c) Spring/Early Summer Funding: January 24, 2025; (d) Late Summer and Fall 2025 March 28, 2025.
Notification Target Dates*: (a) June 2024 (b) October 2024; (c) March 2025; (d) May 2025.
Target award start dates, depending on submission date*: (a) July 2024 (b) November 2024; (c) April 2025; (d) June 2025.

***Subject to Change**

An awarded team will have the flexibility to sign-up for the course that best suits the team members' schedules and regional proximity. Dates for upcoming courses will be posted via the Hubs' webpages including the [Desert and Pacific Region Hub](#), [Great Lakes Regional Hub](#), [Great Plains Region Hub](#), [Interior Northeast Hub](#), [Mid-Atlantic Regional Hub](#), [Mid-South Region Hub](#), [New York Regional Hub](#), the [Northeast Regional Hub](#), [Southwest I-Corps](#), and [West Regional Hub](#). Awarded teams may apply through the Hub's webpage for the desired Short Course. The NASA I-Corps Pilot funded teams will be ineligible for additional funding offered by the Hubs for their participation in the Short Course.

The steps following submission will follow Table F.16-2, below.

3.1 Proposal Submission

Both proposals must be submitted electronically via NSPIRES or grants.gov by an Authorized Organizational Representative of a U.S. organization consistent with the eligibility requirements in Section 2.1. If submitting via NSPIRES, team members must confirm their participation online. See [the NSPIRES page on adding team members](#). If submitting via Grants.gov, team members must provide a letter of commitment submitted with the proposal.

Table F.16-2 Short Course Proposal Actions

Steps	Action
1	Short Course proposal submitted in accordance with timeline provided in Table F.16-1.
2	Internal NASA review of compliant proposals (see Section 5).
3	Notification of Short Course selections via NSPIRES.
4	Grants for Short Course issued to selected teams.
5	Teams apply through the Hub's webpage (see Section 2.1) for the desired Short Course.
6	Awarded teams complete Short Course.

4. Proposal Contents

Proposals that do not meet the requirements or are deemed to be not relevant to SMD and/or STMD strategic priorities may be returned without review. An NSPIRES Cover Page will be required and automatically generated with no page limit.

The required components for both the Short Course and the separate National Course proposals – with page limits – are provided in Table F.16-3 below. Proposals must include both the NSPIRES cover page (web interface) budget and a budget justification in the proposal. Follow Table 1 of ROSES for a list of the baseline required components, but where the instructions below differ from Table 1 of ROSES, this program element takes precedence.

Table F.16-3: Parts of Proposals

Component	Section Title	Required/As Needed	Differs from default instructions (Yes/No)	Maximum page length
1	Table of Contents	Required	Yes	1
2	Science/Technology Management: Alignment and Future Customer Summary	Required	Yes	6
3	References	As Needed	No	No limit
4	Biographical Sketches: Team Overview	Required	Yes	2 pages per team member
5	Table of Personnel and Work Effort	Required	No	No limit
6	Current and Pending Support	Required	No	No limit
7	Budget Justification	Required	No	No Limit

4.1 No Open Science and Data Management Plan

The default ROSES requirement for an Open Science and Data Management Plan does not apply to this program element. However, if an award is made, the default requirement to make available software, data and publications still applies, see Section IIc of the *ROSES-2024 Summary of Solicitation*.

4.2 Science/Technology Management: Alignment and Future Customer Summary

The S/T/M section must not exceed 6 pages, must be compliant with the formatting constraints of ROSES-2024, and must contain only the following sections in the following order:

The Science/Technology Management: Alignment and Future Customer Summary and must include a project description consisting of:

- Project Title;
- A brief description of the research and/or technology major concepts to contextualize its viability;
- Description of the significance and/or impact of the proposed research and/or technology to be the focus of the NASA I-Corps Pilot project including, if applicable the [Technology Readiness Level](#) value (TRL) or indication of commercialization potential of the proposed research and/or technology;

- Proposals must include a brief statement(s) describing how the underlying science and/or technology aligns with one or both of the Mission Directorate’s strategic objectives:
 - For relevance to SMD, proposers may refer to the NASA Science Strategy or Plan for the Science Mission Directorate entitled [Science 2020-2024: A Vision for Scientific Excellence - 2023 Update](#) or to the SMD division research overviews (i.e., A.1, B.1, C.1, D1, E.1, F.1) found in Tables 2 and 3 of ROSES. Located in the “Other Documents” you may also find the document “Quick Guide to Demonstrating Relevance to SMD.”
 - For relevance to STMD, proposers may refer to the [STMD Strategic Framework](#).
- Provide identification of commercial application(s) and market(s) for the proposed technology relevant to NASA STMD and SMD;
- Describe the types of customers the team plans to interview and examples. Provide a sample list (minimum of 10) of potential customers for the targeted market(s);
- Provide what steps the team would take to move the project closer to commercialization (i.e., first-trial marketplace, manufacturing partnering, marketing, etc.).

4.3 Team Overview

Each proposal requires a brief description of the team members roles (see Section 1.2.2) including at minimum: a Technical Lead and an Entrepreneurial Lead. A biographical sketch (of up to 2-pages) for each team member is required. The biographical sketch should highlight technical expertise and track records in successful technology and business development, including all NASA research awards related to this technology, if applicable. All team members must be named on the NSPIRES cover pages and in the proposal and thus confirm their participation online. See [the NSPIRES page on adding team members](#).

4.4 Budget Justification

An NSPIRES cover page budget is required for each proposal. Include the following costs in Section F: line two (2) include any book fees associated with the course, line four (4) include any virtual tools or subscription services required. Proposers may include the costs of traveling to in-person customer interviews in their budgets. The Short Course is offered at no cost but for the National Course proposals only, include in Section F line three (3) of the NSPIRES cover page (web interface) budget any costs up to \$5,000 associated with fees to participate in the National Course.

Each proposal must include a budget justification section consistent with the Section IV of the *ROSES-2024 Summary of Solicitation*. However, proposals need not be redacted, and no separate "Total Budget" is requested.

4.5 Funding Guidance

- Funds should be set aside for customer discovery activities and tools to facilitate course participation and requirements. It is expected that customer discovery will

be the largest portion of the NASA I-Corps Pilot budget. Domestic travel to conduct in-person meetings is an encouraged customer discovery activity.

- Funds may be used for virtual or in-person conference attendance, including travel, if the conference is used specifically for customer discovery.
- Funds may be used for virtual tools to facilitate customer interviews such as Zoom Meeting subscriptions, LinkedIn Premium membership, inexpensive headsets, Dropbox (used for participation), and recommended books.
- Funds may not be used for technical research and development (R&D) work, which includes facility fees or materials and supplies for research.
- The National Course budget proposal must include \$5,000 per team to cover participation fees in the required course.

4.6 Proposal and Schedule Requirements for National I-Corps Course

Upon completion of the Short Course, application for additional funding consists of the following four major steps:

- 1) Team requests and obtains a letter of recommendation from a Short Course senior staff member. Team submits letter via email to the NASA Point of Contact.
- 2) The team submits an Executive Summary for NSF I-Corps program through the webpage: <https://nsfiip.force.com/mywork>. A webpage providing information on what and how to submit an Executive Summary is available at www.nsf.gov/news/special_reports/i-corps/teams/guide.jsp.
- 3) Team interviews with the NSF I-Corps Program staff.
- 4) If invited to apply after steps (1-3), team submits a National Course proposal.

Invited teams will follow Sections 4.1-4.5 as outlined for the Short Course. The Short Course proposal may serve as a starting point for the National Course proposal as needed and based on the results obtained in the Short Course.

Invited teams may submit an I-Corps National Course proposal at any time but:

- Applications for the I-Corps National Course will be reviewed within approximately 30 days, and funding may be expected approximately 90 days after notification of award. These dates are subject to change.
- It is uncertain if a 2025 version of this program element will be released with ROSES-2025 on or about February 14, 2025, at which point new proposals should be submitted to that. However, this program element will remain open for the submission of proposals already in progress until March 28, 2025.

The full process for National Course (optional continuation and potential additional funding) is detailed in Table F.16-4 upon completion of the Short Course. The [NSF I-Corps Program webpage](#) will highlight National Course available dates. Teams may be invited to interview with the NSF I-Corps Program staff. Teams will be notified if they were selected to be invited to submit a National Course proposal to NSPIRES.

Teams are encouraged to complete both courses within one year from their award start. The timing and process is up to the proposing team and dependent on when the team submits their proposal(s). It is uncertain whether this element will be solicited again in ROSES-2025. A team may be awarded for participation in the Short Course from applying to ROSES-2024 and awarded an augmentation (or a new award) for

participation in the National Course from applying to either ROSES-2025 or another means i.e., NSF, depending on the timing.

Table F.16-4 Process for National Course

Steps	Action
1	The team requests a letter of recommendation from a Short Course senior staff member and must email it to the NASA I-Corps Point of Contact. The letter of recommendation may be requested by NSF I-Corps Program staff member.
2	The team submits an Executive Summary upon creating an account for the NSF I-Corps program through the webpage: https://nsfiip.force.com/mywork . A webpage providing information on what and how to submit an Executive Summary is available at www.nsf.gov/news/special_reports/i-corps/teams/guide.jsp .
3	Team interviews with an NSF I-Corps Program staff member.
4	The team will receive notification whether they are invited to submit a proposal through NSPIRES for their team to participate in the NASA I-Corps National Course.
5	If invited, the team submits a proposal to NSPIRES. NASA I-Corps Pilot Program Officer will receive confirmation of invited team's from NSF I-Corps Program Officer. Proposal requirements are the same for the National Course as they are for the Short Course see Section 4.1. For the National Course, applications may be received any time, see above.
6	Internal NASA review of compliant proposals (see Section 5).
7	Notification of National Course selections via NSPIRES.
8	Grants for National Course issued to selected teams.
9	Awarded teams sign-up and complete National Course.

5. Evaluation

Proposals will be evaluated for both the Short and National Course by NASA personnel against the three evaluation criteria: Intrinsic Merit, Relevance, and Cost as defined below. Failure of a proposal to be rated highly in any one of these factors may cause the proposal not to be selected.

The evaluation of Intrinsic Merit for both the Short and National Course proposals will be based on the definition of Merit below, which replaces the standard one in Appendix D of the [NASA Proposer's Guide](#):

A) Intrinsic Merit

- i. The team's likelihood for success, including: the composition of the team, the appropriateness of the assigned roles of team members.
- ii. The expected significance and/or impact of the proposed research and/or technology.
- iii. The commercialization potential of the proposed research and/or technology.

For relevance and cost, the evaluation standard criteria are as defined in the [NASA Proposer's Guide](#), and include:

B) Relevance

- i. The alignment of the proposal with the stated goal of the NASA I-Corps Pilot (Section 1.2).
- ii. Assessment of the proposal goals and objectives for priorities of SMD and/or STMD (Section 4.2).

C) Cost

- i. The reasonableness of the proposed costs in accordance with Section 4.2.
- ii. The adequacy of the requested budget for the proposed activities and Science/Technology Management: Alignment and Future Customer Summary activities.
- iii. The appropriateness of the time commitment of team members, and the reasonableness of those commitments considering the team members' other commitments.

The selection official(s) may take into account programmatic considerations such as impact on current or future missions and balance across: subdisciplines, source of funding for subject invention/technology, technologies, methodologies, career stage, risk, innovation, and types of institutions.

6. Award Administration and Post-Award Activity

Awardees must submit (via email to the Point of Contact in Section 7) an interim report, as described below, no fewer than 12 weeks after completion of the Short Course. Reporting on the results of the National Course, if applicable, must be provided as part of the standard final grant report submitted via email to the Point of Contact in Section 7 and to NSSC-Grant-Report@mail.nasa.gov.

The interim and final reports must summarize the overall progress and learning made by the team in the reporting period, the outcomes of the work, and the project's post-award vision. The interim and final reports must articulate the customer segments explored, what changes to plans were made, and how the team sees their value proposition and business model.

Include, as needed and relevant:

- Patent applications;
- Patents granted and derived or both;
- Licensing agreements (including any licenses of NASA technology);
- Company formation;
- Royalties realized;
- Federal funding and/or proposals for federal funding under review (with agency name and date submitted);
- Third party financing;
- Enhanced entrepreneurial mindset of researchers;
- Enhanced career trajectories of team members;
- Enhanced research and/or technology insight or conclusions;

- Other additional achievements, progress, impacts.

For the purposes of evaluating the impact of the NASA I-Corps Pilot, proposers may be asked to provide feedback on the program to help NASA understand actual outcomes and inform future improvements to the pilot.

7. Summary Table of Key Information

Expected program budget for Short Course new awards.	~\$300K
Expected program budget for National Course new awards.	~\$120K
Number of new Short Course awards pending adequate proposals of merit.	~12-30
Number of new National Course awards pending adequate proposals of merit.	~2-4
Maximum duration of awards for each the Short Course and National Course	1 year
Due date for Notices of Intent	No Notices of Intent are requested for this program element.
Due date for Short Course proposals	Short Course Proposals may be submitted at any time until March 28, 2025, but see Section 2 and Table F.16-1
Due date for National Course proposals	National Course Proposals may be submitted at any time until March 28, 2025, see Section 4.6.
Planning date for start of investigation	See Table F.16-1.
Proposal submission page for the central Science/Technical/ Management section of proposal, including relevance.	6 pages, but see Section 4 and Table F.16-3
Relevance	See Section 4.2 for relevance to SMD and STMD
General information and overview of this solicitation	See the NASA Proposer's Guide and <i>ROSES-2024 Summary of Solicitation</i> .
General requirements for content of proposals	Table 1 and Section IV of the <i>ROSES-24 Summary of Solicitation</i> , and Section 3 of the NASA Proposer's Guide .
Detailed instructions for the submission of proposals	See NSPIRES Online Help , Sections 3 of the NASA Proposer's Guide and as described in Section IV(b) of the <i>ROSES-2024 Summary of Solicitation</i> .
Submission medium	Electronic proposal submission is required; no hard copy is required or permitted.

Webpage for submission of proposals via NSPIRES	http://nspires.nasaprs.com/ (help desk available at nspires-help@nasaprs.com or (202) 479-9376).
Webpage for submission of proposals via Grants.gov	https://www.grants.gov/ (help desk available at support@grants.gov or (800) 518-4726).
Funding opportunity number for downloading an application package from Grants.gov	NNH24ZDA001N-ICOR
Point of Contact concerning this pilot.	Maggie Yancey Science Mission Directorate and Space Technology Mission Directorate NASA Headquarters Washington, DC 20546-0001 Email: margaret.a.yancey@nasa.gov