NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)
HEADQUARTERS
SPACE TECHNOLOGY MISSION DIRECTORATE
300 E Street, SW
Washington, DC 20546-0001

NASA EARLY CAREER INITIATIVE (ECI)
FY 2026 SOLICITATION

Solicitation Issued: November 12, 2024
Center Proposals Due to STMD: March 14, 2025 (5PM ET)

Engaging NASA early career researchers with world class partners to develop the innovative leaders and technologies of the future.

Key Information

As an element of the NASA Center Innovation Fund Program, the Early Career Initiative (ECI) provides the opportunity for NASA's early career workforce to propose and develop innovative aerospace technology projects, engage with leading industry and academic partners, and develop the skills required to manage and transition transformative concepts into future NASA missions.

Eligibility: NASA early career civil servants (typically defined as service within 10 years of beginning a professional career – see Section 3.0) are eligible to serve as an ECI Principal Investigator or early career team member. Early career on-site contractors are not eligible to lead or submit ECI proposals but may participate as ECI team members. As an FFRDC, the Jet Propulsion Laboratory is not eligible to submit proposals but may participate as team members.

Significant Updates for FY26:

- Clarified Eligibility Criteria (see Section 3.0) to accommodate leave(s) of absence(s) for personal or family medical or care reason(s)
- Updated prior-year references to the STMD Strategic Framework with references to the STMD Civil Space Shortfalls and STMD Tech Base Domain structure
- Clarified proposal video expectations to make video production more accessible and equitable for all proposing teams regardless of access to video production/editing capabilities
- Added a Project Closeout Video as a new deliverable for ECI award recipients, based on recommendations from prior-year ECI investigators.

Key Dates:

- Call for Proposals Released: November 12, 2024
- Proposer's Virtual Forum:[1] December 9, 2024,1:00-3:00PM ET (virtual)
- Additional Q&A Sessions:[2] January 13, 2025; February 10, 2025, 1:00-2:00PM ET (virtual)
- Proposals Due: March 14, 2025, 5:00PM ET
- Selection Notification: April 25, 2025 (Target)
- Project Start Date: October 1, 2025

Proposal Submission and Review Process: Proposal content shall conform to the guidance provided in this solicitation. Proposals shall be submitted to the Center Chief Technologist per the process established at each Center. For FY2026, no more than

[1] Forum and Q&A sessions will be held via Teams meetings; links will be provided to the Center Chief Technologists for distribution to proposing teams. Presentation charts and recordings will be posted here

[2] Frequently Asked Questions will be updated and posted on ECI Teams here

two (2) proposals may be submitted by each lead Center to STMD for review; however, Centers may partner on multiple proposals without restriction.

Starting Technology Readiness Level (TRL): Typically ≤ TRL-3 at the start of award, but later development stages may be considered.

Award Details:

- Award Duration: Two years
- Maximum Award Amount: $2M ($1M per year)
- Expected Number of FY26 Awards: Up to 5 awards, pending budget availability

Selection Official: Final ECI award selections will be made by the STMD Deputy Associate Administrator for Programs or designee.

STMD Points of Contact:

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NASA Early Career Initiative

1.0 Introduction

Engaging the brightest minds from government, industry, and academia, the NASA Space Technology Mission Directorate (STMD) develops innovative technology solutions to address the Nation's toughest aerospace challenges. STMD is committed to ensuring that Center skills are developed and maintained in critical technology areas consistent with well-defined Center roles. Central to this commitment is the development of NASA's early career workforce through the competitively funded Early Career Initiative (ECI). ECI projects provide an opportunity for NASA early career professionals to engage with leading industry, academic, and government partners to develop new aerospace capabilities, while gaining the skills needed to manage and transition these advanced technologies into future NASA missions.

Technologies proposed to this solicitation must map to one or more of the NASA Technology Taxonomy Areas (Appendix A) and should address one or more STMD Civil Space Shortfalls[3]. Additionally, proposers may submit technology projects that address national goals in climate related technology areas, as further described in Appendix C. ***Proposers are strongly encouraged*** to consult with the appropriate STMD technical points of contact listed in the Appendices regarding state-of-the-art, on-going activities and investments, and evolving strategic needs in their respective technology areas to ensure the proposed technology development is of interest and is not duplicative of existing projects.

2.0 Funding and Award Information

For FY26, ECI anticipates awarding up to five (5) new awards to begin October 1, 2025 pending availability of program funds. Selected projects will each receive up to $1M annually to cover labor, procurement, and travel costs each year, for a period of up to 2 years. FY26 ECI award selections are targeted for April 25, 2025. Pending availability of funds, selected projects will receive up to $100,000 seed funding in FY25 made available to projects soon after selection. Any seed funding provided in FY25 will be ***in addition to*** funds for project execution (up to $1M annually for the two year period of performance). Seed funding shall be used only to:

(a) Support the development and/or award of external partner agreements prior to full project start on October 1, 2025. NOTE: Partner period-of-performance shall not start before October 1, 2025.

(b) Cover labor and travel costs for participation in training classes specifically for the ECI Program. Training classes for ECI will be offered through the NASA Academy of Program, Project, and Engineering Leadership (APPEL). APPEL classes are offered at no cost (i.e. "tuition free") to selected projects.

[3] STMD Civil Space Shortfalls: https://www.nasa.gov/spacetechpriorities/ and https://techport.nasa.gov/strategy

Restrictions on number of proposals submitted per Center	No more than two (2) proposals may be submitted by each lead Center; however, Centers may partner on multiple proposals without restriction.
Anticipated number of FY26 Awards	STMD anticipates making up to five (5) new awards to start on October 1, 2025, pending available ECI Program budget and proposed costs.
Project duration	Awards will be funded for a period of 24 months.
Funding	Projects will receive a maximum of $1M per year to include labor, procurement, and travel (maximum life cycle cost of $2M over 2 years). Up to $100k project seed funding will be provided soon after award to: (a) initiate external partnership agreements prior to full project start on October 1; and (b) participate in training classes specifically for ECI.
Training	The ECI Program has partnered with NASA HQ APPEL Knowledge Services to provide a series of training courses to projects.

2.1 Deliverables and Reporting Requirements

ECI Principal Investigators are required to meet the following program deliverables:

- Attend a virtual half-day ECI Orientation meeting, to be held in May 2025.
- Submit monthly quad charts following a program-defined template. The quad charts will detail recent project accomplishments, upcoming significant events, and issues and concerns, and will be used to inform STMD monthly program reviews. The first monthly quad chart will be due in November 2025.
- Participate in a virtual half-day status review with ECI Program personnel approximately 6 months after project start.
- Attend an annual project continuation review. All ECI PIs are required to participate in the annual review, to be held at NASA HQ in Washington, D.C. The purpose of the review for first year projects is to evaluate overall performance during the prior year and ensure adequate progress toward meeting project goals and objectives. The annual review will serve as a final review for projects completing their second year. This 2-day meeting will occur in September each year. PI attendance and participation in the review is expected to be in-person for both full days of the review. Additional team members are welcome, but not required, to attend.
- **New for FY26:** Produce and deliver a Project Closeout Video. The anticipated short Project Closeout Video will: (a) briefly recap the project, team members, external partners, and technical objectives; (b) briefly discuss major technical achievements and findings; (c) address major project challenges encountered during execution and how these were overcome; (d) describe the management approach taken and its effectiveness in execution; (e) describe key lessons learned; (f) identify the number of project presentations, publications, New Technology Reports, and patents (as applicable); (g) discuss project and technology transition/infusion/transfer opportunities for continued development; and (h) optionally provide any statements on the experiences provided and enabled through the

ECI Program. The Project Closeout Video shall be delivered in MPEG4 or similar format suitable for playback on a standard NASA issued computer. Videos should not contain any proprietary or Controlled Unclassified Information and should be suitable for public release. Project Closeout Videos may be used by NASA STMD and/or Centers for project advocacy, outreach, and communications. Project Closeout Videos shall be submitted to the ECI Program Office via OneDrive or Box within 60 days of project completion.

- A final written report is required within 60 days of project completion. The final report will generally follow a program-defined template and should be suitable for public release. ECI project final reports should be submitted and approved in STRIVES prior to delivery to the ECI Program Office. Any information that is substantive to the final report but not suitable for public release can be submitted to the ECI Program Office as a non-public "Appendix" to the final report. The non-public Appendix shall be submitted as a separate file and contain document markings as appropriate. The report will detail project goals and objectives, anticipated benefits to NASA, major accomplishments and findings, and plans for advancing the technology beyond ECI. A corresponding spreadsheet will be provided for the PI to populate with information required for the NASA TechPort and internal NASA SPAR databases.

In addition to required meetings, informal tag ups between the PIs and STMD ECI Program Office staff will occur as needed (typically at two week intervals) to assess progress and address issues that may be encountered during the performance of the project.

3.0 Eligibility

This ECI call is open to NASA civil servants who satisfy the requirements of an early career professional: cumulatively within the first 10 years of an individual's career in support of the NASA mission (i.e., an entry level professional), not including any leave(s) of absence(s) for personal or family medical or care reason(s). Alternative Center definitions of an early career employee must be confirmed with the NASA Program Executive to ensure equal opportunities exist across all Centers. Early career civil servants at any of the NASA Field Centers may serve as a Principal Investigator or participate as an early career team member. Employees of the NASA Jet Propulsion Laboratory are not eligible to serve as Principal Investigators or to submit proposals in response to this call but may participate as project team members. Similarly, on-site contractors are not eligible to lead or submit ECI proposals but may participate as project team members.

3.1 Team Members

3.1.1 Early Career Principal Investigators

ECI projects are led by Principal Investigators (PIs), who must be NASA early career civil servants at the time of award. Only one PI is allowed per project; co-PIs are not allowed. PIs are encouraged to commit full time to the project over the 2-year lifecycle; a minimum time allocation of 75% is required.

3.1.2 Early Career Project Managers

Projects may include early career Project Managers (PMs) to assist the PI with project execution. PMs are expected to commit at least 50% of their time to the project over the 2-year lifecycle.

Inclusion of an early career PM is not required, however prior ECI projects have found inclusion of an early career PM beneficial for successful project execution.

3.1.3 Early Career Team Members

The ECI program provides an opportunity for NASA early career professionals to participate in a high visibility technology development project. Core ECI team members bring different areas of expertise to the project and should be chosen for their relevant skills and the opportunity for career development. Early career personnel at other NASA Centers and JPL, as well as early career on-site contractors, may participate as core team members. While there is no limit on the number of core team members allowed, early career team members must commit a minimum of 25% time to ensure a reasonable level of team interaction and project participation. In addition, early career team member time commitments should be commensurate with their project roles and career development goals. Team members participating at less than 25% time may be listed as contributors but will not be considered part of the core team. ECI teams seeking to find expertise or team members from other NASA Centers and/or JPL should coordinate with their Center Chief Technologist for assistance. NASA Early Career Employee Resource Groups[4] may provide another network to identify potential early career team members at other NASA Centers.

3.1.4 Senior Team Members

While the goal of the ECI program is to foster the development of NASA early career civil servants, it is recognized that the project may benefit from the participation of more experienced team personnel. The funded participation of more senior career civil servants and on-site contractor personnel from any NASA Center or JPL is allowed; however, NASA early career civil servants should constitute a significant majority of the team and fill key project leadership and technology development roles.

3.1.5 Project Mentors

Each project must include one or more experienced NASA mentor(s) to guide and support the early career team on technology development, project management, and professional development elements of the project. For example, a team may wish to engage both an experienced project manager who can help provide context between standard NASA practices and the selected program management approach, and a senior scientist or engineer who can provide guidance on technical aspects of the project.

3.1.6 External Partners

Each ECI project must engage with a highly qualified external partner that brings an element of technical, management or programmatic experience or innovation to the project. The participation of the external partner must be an integral part of the project. Multiple external partners are allowed, but their roles must be substantive and clearly justified. The external partner cannot be another NASA Center or JPL, but as previously noted, proposers are welcome to team with other Centers or JPL in addition to the external partner(s).

[4] https://nasa.sharepoint.com/sites/erg -> ERG Directory By Affinity -> Scroll down to "Early Career/New Professionals"

Funding for an external partner must be included in the proposed ECI budget, and procurement funds for the partner organization will be distributed by HQ to the selected NASA Centers for award. Partner organization costs are expected to range between 25% to 45% of the total ECI budget, commensurate with the proposed partner roles. Cost sharing with external partners is encouraged but is not required.

Proposers are encouraged to engage with their Center procurement office during the proposal process to understand external partner selection requirements and determine an appropriate funding mechanism. ECI encourages innovative and agile management approaches, which could also include non-traditional acquisition approaches to engaging partners including, but not limited to: SBIR Phase III and Post-Phase II awards[5], and crowdsourcing[6]. Proposers are encouraged to ensure that sufficient time is available to establish a contract, grant, or other funding agreement in their schedule. Establishing grants or contracts with entities outside of NASA can be a time-consuming process, often taking several months to complete once an ECI award is made. Proposers are strongly encouraged to discuss procurement requirements and processes during proposal preparation to better estimate the time it will take to engage with and fund an external partner. These estimates should be built into your project schedule and should be part of any preliminary discussions with your external partner(s). See Section 4.2.7 for additional information.

3.1.7 Foreign Entities

Foreign entities cannot serve as external partners; however, participation by a foreign organization is permitted on a no-exchange-of-funds basis, subject to NASA's policy on foreign participation. The participation of a foreign entity will require approval by the NASA Partnership Office prior to the generation of an Agreement (e.g., Space Act Agreement, Interagency Agreement), If foreign participation is anticipated, please ensure sufficient time in the project schedule for agreement negotiation and approval.

4.0 Proposal Submission Information

4.1 Proposal Submittal

Proposals must follow the requirements defined below and must be submitted by the Principal Investigator to their Center Chief Technologist (or designee) according to the procedures outlined at their respective NASA Centers. Center Chief Technologists may submit no more than two (2) Center-led ECI proposals in either Word or PDF format together with the corresponding project proposal videos by the established submission date. Proposals and videos should be submitted to the STMD ECI Program Manager by the Center Chief Technologist (or designee) through NASA OneDrive or Box filesharing. Alternative means of proposal submission should be approved by the STMD ECI Program Manager prior to the submission date. Paper copies of proposals will not be accepted.

4.2 Proposal Requirements

The ECI proposal should include the following information, in the order listed. Page limits are defined for 8.5"x11" paper. Reviewers will not consider any content exceeding the page limits

[5] https://www.sbir.gov/sbirsearch/award/all/?f%5B0%5D=im_field_agencies%3A105737
[6] https://www.nasa.gov/prizes-challenges-and-crowdsourcing/

specified in the table below. Font style should be standard (e.g., Arial, Calibri, Times New Roman), and font size should be 12-point for proposal text, and no less than 10-point for figure captions. Line spacing should be no less than single-spaced, and margins should be reasonable (i.e., 1" or greater). Single column or double column page format is acceptable. Proposal appendices are not permitted and will not be reviewed.

Solicitation Section	***Proposal Section***	***Maximum Page Length***
4.2.1	Cover Sheet	1 page
4.2.2	Table of Contents	As needed
4.2.3	Overview Chart	1 page (landscape format; see template)
4.2.4	Technology Description and Impact	5 pages
4.2.5	Work Plan and Management Approach	5 pages
4.2.6	Team Roles and Workforce Development	As needed; ½ page per team member
4.2.7	External Partnerships	Up to 2 pages per external partner
4.2.8	References and Citations	Optional (Not counted in page limit)
4.2.9	Budget Data and Justification	As needed
4.2.10	Letters of Commitment	As needed
4.2.11	Project Video (submitted separately)	N/A (4-minute max duration)

Additional information regarding the content for each proposal section is provided below.

4.2.1 Cover Sheet

The proposal should include a cover sheet that clearly identifies the project title; the Principal Investigator, with contact information; the submitting NASA Center; and a list of project team members, with their affiliated NASA Centers, and external partner organization(s).

4.2.2 Table of Contents

A Table of Contents helps reviewers find specific proposal content. One page is preferred, but additional pages are permitted if needed.

4.2.3 Overview Chart

The proposal must include an overview chart that summarizes the proposed technology development, potential benefits, team members, management approach, and budget. The chart should follow the template provided in Appendix D and should be rotated into landscape format with legible (i.e., minimum 10-point) font size. The chart should be considered a stand-alone item, providing a high-level overview of the project that can be readily understood and referenced by reviewers. The chart should not contain any sensitive, confidential, or proprietary information.

4.2.4 Technology Description and Impact

This section should provide a compelling case for developing the proposed technology, including the technical challenges or gaps being addressed; a description of the proposed solution; comparison with the state of the art; technical goals and objectives to be met during the project; and the potential impact it will have on future missions if successfully developed. Metrics or key performance parameters should be identified for major technology components, subsystems, or systems to demonstrate how technology advancement will be measured and how the proposed technology meets potential user/mission requirements. The proposal should identify which NASA Technology Taxonomy Area(s) and STMD Civil Space Shortfall(s) the proposed technology addresses, the STMD Functional Domain(s) and Capability Portfolio area(s) or climate relevance to which the project is most appropriately aligned, the Center skills to be developed and maintained consistent with Center roles, and the starting and anticipated ending Technology Readiness Level(s). As previously noted, proposers are encouraged to consult with the appropriate STMD technical points of contact or other Agency subject matter experts regarding the need and applicability of the proposed technology.

4.2.5 Work Plan and Management Approach

The proposal should include a well-defined work plan that addresses how the project will meet each identified technical objective. The work plan must define the analytical and/or experimental tasks to be accomplished, and the facilities to be used. For test facilities outside the immediate control of the proposer or proposing organization, a letter of commitment from the facility owner stating that the facility will be available for use in the time frame proposed must be included with the proposal. The work plan should include a schedule of the key tasks, reviews, and milestones to be achieved over the course of the project. If applicable, a Systems Requirement Review should be included early in the project to ensure that functional and performance requirements will satisfy the proposed technical objectives. Proposers are encouraged to consider inclusion of an appropriate amount of funded schedule reserve to reduce risk to project completion by the end of the two-year period of performance.

NASA is always seeking to improve the methods used to manage advanced technology development projects. Innovative and agile management approaches, such as those used in industry or other organizations and agencies, may be better suited for the management of the proposed ECI project. As such, proposers are not restricted to the tailored use of NPR 7120.8 or 7120.5 and may consider nontraditional management or acquisition approaches. Proposals must clearly describe the planned management approach, and state why it is appropriate for the proposed activity. Team training in the proposed management technique may be included as part of the ECI work plan and covered as part of the proposed ECI budget.

4.2.6 Team Roles and Workforce Development

For the Principal Investigator and each early-stage core team member, provide a brief description of the member's area of expertise, their team role and key responsibilities, their time allocated to the project (as a fraction of FTE or WYE), and expectations/goals for professional development based on their assigned role. Keep in mind that projects are expected to align with the STMD Strategic Workforce Guidance to develop or maintain critical technology areas consistent with Center roles (Appendix E). Clearly identify which team members are early career. For more senior team members, provide a description of their project role, relevant experience, and fraction of time allocated to the project. For NASA mentors, provide a brief description of their experience and

engagement plan (e.g., frequency, type of engagement) to provide technical, management, or workforce development guidance to the team. Information on external organization personnel should be included under the External Partnerships section of the proposal (see Section 4.2.7).

For FY26, the ECI Program intends to continue its partnership with NASA APPEL Knowledge Services to offer a series of project leadership and team training courses. Training classes will be personally curated to suit individual training needs. Course offerings will be dependent upon existing or scheduled APPEL courses. The intent is that ECI PIs and PMs (as applicable) take training classes during the intervening time between project selection and project start, or early in the project execution phase, so that knowledge learned can be applied throughout ECI project execution.

4.2.7 External Partnerships

Each project must include a highly qualified external partner that will add technical or programmatic experience to the project. Partners may include but are not limited to academic institutions, commercial entities, and other government agencies; other NASA Centers and JPL are not considered external partners but may team on proposals. Foreign entities are not considered external partners but may participate on projects on a no-exchange-of-funds basis (see Section 3.1.7). Only one external partner is required, but proposals may include additional external partners as needed. Contributed in-kind or matching funds from partner organizations is encouraged but not required.

For each external partner, identify and describe the role of the external partner organization and the key personnel that will participate on the project. Describe the capabilities of the external partner organization(s) and the reason for their selection. Describe the relevant management or technical experience of the partner personnel participating on the project. Define whether any of the external personnel are considered early career. If applicable, describe the relevant partner facilities to be used during the project.

It is recognized that discussions with external partners may be limited prior to the award of the ECI project. For each planned partnership, proposers should identify the planned procurement mechanism (i.e., grant, contract, etc.) and the status of potential partnership(s) commitments at the time of proposal submission. Proposers are strongly encouraged to discuss requirements for external partnership funding and realistic periods of performance with their respective Center procurement offices.

Pending availability of program funds, ECI will provide awarded FY26 projects with up to $100k additional funding in FY25 to initiate external partnership agreements. These funds will be made available to the projects as soon as possible after selection. Proposers are encouraged to discuss funding mechanisms with their Center procurement offices to evaluate how these funds could be used to facilitate partnership agreements in anticipation of a full project start on October 1.

4.2.8 References and Citations

References and citations are optional. If included, reference and citation formats should correspond to accepted publication practices used by professional societies such as the American Institute of Aeronautics and Astronautics, American Physical Society, IEEE, etc.

4.2.9 Budget Data and Justification

The proposal budget should follow the template provided in Appendix F. The proposal should include justifications for each major element of the project budget. The budget should only include information relevant to the project execution phase (up to $1M annually for the two-year period of performance). Do not include project seed funding (up to $100k) that may be provided prior to project start.

4.2.10 Letters of Commitment

Letters of commitment are required from the direct managers of each early career and senior civil servant and on-site contractor team member. The letter must include an acknowledgement regarding the availability and commitment of the employee for the time specified in the proposal. Managers with more than one direct employee participating on the proposed project may submit a single letter of commitment covering employees from the same organization.

NASA Mentors are required to submit a letter of commitment acknowledging their role on the project and their anticipated time commitment. A letter from the mentor's direct supervisor is not required.

If the project includes the use of facilities or resources outside the immediate control of the ECI PI or their organization, a letter is required from the providing organization stating their commitment to provide the requested resources.

A signed letter of commitment is required from an authorized official for each external partner organization participating or expected to participate on the project. The letter must include an acknowledgement of the work to be performed, the period of performance, and the anticipated cost for the partner's participation.[7] To the extent known at the time of proposal submission, the letter should identify the individuals assigned to work on the project and a statement acknowledging their availability. The letter should also acknowledge the use of any partner facilities and state their availability to the project for the period specified in the proposal.

4.2.11 Project Video

Each proposal submission must be accompanied by a short project video, no more than 4 minutes in length, in MPEG4 or similar format, suitable for playback on a standard NASA issued computer. Webcam or mobile device video quality is sufficient. Project team presentations – in "lightning talk" style – recorded in Microsoft Teams are acceptable. The intent is not to produce a studio quality video, but rather to allow the team to introduce their project in an engaging manner beyond just the written proposal. Video/audio production quality will not be evaluated in the proposal evaluation process. The video should (in any order):

- Introduce the team members, their affiliation, and role on the project, and identify the role of the external partner(s).
- Identify the technology being developed, the gap(s) and/or shortfall(s) it addresses, and the benefits if successful.
- Provide a brief overview of the technology development approach, including the key tasks to be accomplished.

[7] Procurements for external partner funding may take several months to complete; please schedule accordingly.

- Provide an overview of the project management approach to be used during the project, and why this approach was chosen.

The videos will be reviewed by the proposal selection committee and may be used by the proposing Center or the Space Technology Mission Directorate for additional outreach and communication activities, with the PI's approval. The videos should not contain any proprietary information not suitable for public release.

4.3 NASA Flight Opportunities Program

Projects proposing to fly a payload as part of the ECI project or as a follow-on activity are encouraged to contact the NASA Flight Opportunities Program during proposal development. The Flight Opportunities Program maintains an IDIQ (Indefinite Delivery/Indefinite Quantity) contract with several U.S. suborbital providers for reusable suborbital launch vehicles, sounding rockets, parabolic flight aircraft, and high-altitude balloon flights. These suborbital testing capabilities may be used for subsystem level testing, technology risk reduction, or other project requirements. Pending available funding, the Flight Opportunities Program may pay the cost for contracted flight-testing; additional funding for flight test preparation, suborbital test hardware, and post flight analysis may also be considered. Projects are encouraged to engage with the Flight Opportunities Program early in the proposal development process to understand current capabilities and requirements; link to the NASA Flight Opportunities Program home page at:
https://www.nasa.gov/directorates/spacetech/flightopportunities/index.html

5.0 STMD Review and Selection Process

5.1 Proposal Review and Selection

Proposals will initially be checked for compliance with the requirements listed in Section 4.2. Proposals deemed non-compliant will not be eligible for award. Proposals that pass compliance screening will be reviewed by the STMD Program Executive and a minimum of three additional non-advocate reviewers, which may include members of the CIF/ECI program office, STMD Principal Technologists or System Capability Team Leads (based on applicable technology disciplines), representatives from STMD or other Mission Directorates, and other Agency subject matter experts, as required. The reviewers will score each proposal based on the criteria outlined in Section 5.2, and an average panel score for each proposal will be determined. The review panel will discuss and rank the scored proposals and prepare a prioritized recommendation for the STMD Selecting Official. The Selecting Official will make a final selection of the ECI awards, based on the non-advocate reviews, prioritized recommendations, and considerations of programmatic balance. Proposers will be notified of selection or non-selection by the STMD Program Executive once such communication is authorized by the STMD Selection Official.

5.2 Evaluation Criteria

Reviewers will use the following evaluation criteria to score the ECI proposals:

Evaluation Criteria	Weighting
1. Technology Description and Impact	**25%**
a) Does the proposal identify a significant gap or need in NASA capabilities that the technology will address?	
b) Does the proposal clearly define the technology innovation or advancement and its relation to meeting identified Agency needs?	
c) Does the proposal provide clearly defined benefits to NASA and/or the national aerospace community if the technology is successfully developed?	
d) Is there a credible path beyond the ECI Program to advance or infuse the technology within or external to NASA?	
2. Work Plan and Management Approach	**25%**
a) Does the work plan demonstrate an understanding of the major technology development challenges and identify specific tasks to address these challenges?	
b) Does the work plan include a well-defined and feasible schedule of key project milestones and deliverables, tied to the technology development tasks?	
c) Does the work plan lead to a clearly defined technology advancement at the end of the 2-year project? Is the end goal of the project realistic and achievable?	
d) Does the proposal clearly describe the project management approach and justify the choice of this approach?	
e) Does the proposal define the role of the external partner(s), describe the partner capabilities, and justify their participation on the project?	
3. Team and Workforce Development	**20%**
a) Does the proposal clearly define team roles, with early career personnel filling key technical and management positions?	
b) Does the team bring a diverse set of skills and capabilities to the project, and are individual skills appropriate for the assigned roles?	
c) Does the project provide sufficient opportunities for early career professionals to develop or maintain their skills, knowledge, and abilities through direct involvement with technical and/or management project activities, consistent with Center roles?	
d) Do the NASA mentors have the required technical or project management experience to guide the early career team members? Are the planned mentor-team interactions well defined?	

4. Budget and Justification	**20%**
a) Is the requested budget adequately defined and appropriate for the proposed project?	
b) Are external partner costs reasonable and justified?	
5. Project Video	**10%**
a) Does the project video (i) introduce the team members and their roles; (ii) identify the proposed technology and the need for it; (iii) summarize the development approach, including the key tasks; and (iv) explain the project management approach and why it was chosen?	
b) Does the project video conform to the required time and video format (no more than 4 minutes, MPEG4 or similar format)?	
c) Does the project video clearly communicate the essence of the proposed technology project for a general audience?	

5.3 Proposal Debriefings

Proposers have the right to learn the major factor(s) that led to the acceptance or rejection of any proposal. Reviewer comments will be collated, edited for clarity, and provided to each proposer following notification. Proposers may also request a verbal debriefing from the STMD Program Executive following receipt of the reviewer comments.

6.0 Frequently Asked Questions

Questions regarding this solicitation may be emailed to the ECI Program Executive using the subject line *ECI Solicitation Question*. Responses to Frequently Asked Questions (FAQs) will be regularly posted to the ECI Teams site here. The FY26 ECI solicitation will also be posted to this site.

A Proposer's Virtual Briefing will be held via Microsoft Teams on December 9, 2024, from 1:00-3:00PM ET. The briefing will introduce the ECI Program, followed by a question-and-answer session. Additional abbreviated Q&A sessions will occur via Teams on January 13, 2025 and February 10, 2025 from 1:00-2:00PM ET. Meeting links will be provided to the Center Chief Technologists for distribution.

Points of Contact:

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Appendix A: NASA Technology Taxonomy Areas

The NASA Technology Taxonomy provides a structure for articulating the technology development disciplines needed to enable NASA aerospace missions. The 2024 revision is comprised of 17 distinct technical discipline-based taxonomies (TX) that provide a breakdown structure for each technology area. The 2024 NASA Technology Taxonomy poster is here:

https://www.nasa.gov/wp-content/uploads/2024/07/nasa-technology-taxonomy-chart-portrait-teal-orange-accent-20240715-508tagged.pdf?emrc=4ab85b

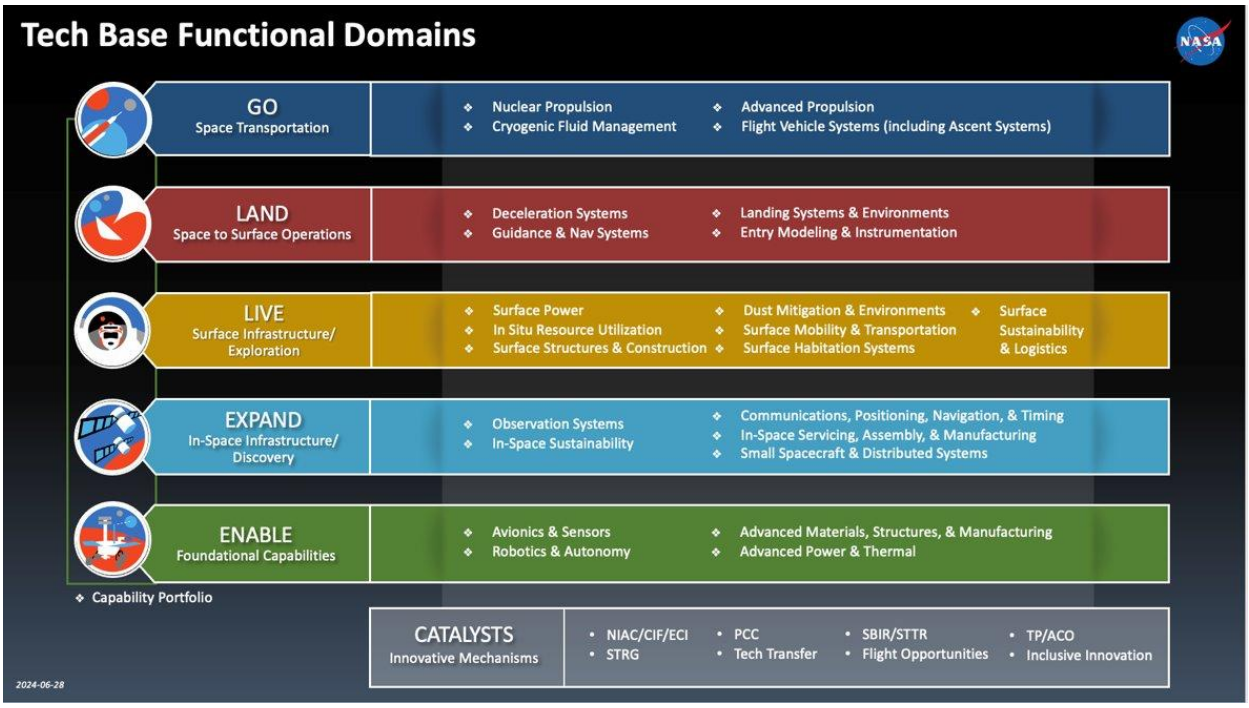
Additional details are located at:

- https://www.nasa.gov/otps/2024-nasa-technology-taxonomy/
- https://techport.nasa.gov/taxonomy/8817
- https://www.nasa.gov/wp-content/uploads/2024/10/nasa-2024-technology-taxonomy-report-low-resolution-final-20240730-tagged.pdf?emrc=021157?emrc=021157

Appendix B: STMD Strategic Framework

FY25 is a transition year for NASA's Space Technology Mission Directorate (STMD). STMD is updating its strategic framework and realigning its organizational structure and processes. These updates aim to improve collaboration with STMD stakeholders on technology development needs for civil space and to enact a prioritization process that informs decision making and increases transparency.

STMD is reorganizing into Functional Domains as shown in the graphic below. The Tech Base Functional Domain framework is comprised of 24 Capability Portfolios within the five Domains: STMD *CATALYSTS* is comprised of innovative mechanisms that address key capability shortfalls through numerous solicitation opportunities, build and manage Agency-wide programs, and create space for disruptive ideas and talent.



An updated approach to portfolio investment planning is also in development. The first step in this process a development of a prioritized list of shortfalls. STMD's current prioritized list of Civil Space Shortfalls, released this summer, is available at **https://techport.nasa.gov/framework.** Please note that the prioritized Civil Space Shortfalls are meant to inform, but not alone determine, technology investments. Ultimately, a roadmap for strategic investments will be developed for each Functional Domain.

As in prior years, all prospective ECI proposers are strongly encouraged to discuss their planned technology submission with the appropriate subject matter experts, provided below. These experts will help proposers ensure alignment with strategic priorities. This coordination step is especially important for this year's ECI call, since the solicitation process will be concurrent with strategic investment roadmap development.

STMD Technical Points of Contact

STMD Principal Technologists and System Capability Leads are available for consultation with proposers regarding the state-of-the-art, on-going activities and investments, and strategic needs in their respective areas of expertise. Proposers are strongly encouraged to consult with the appropriate PT or SCLT early in the proposal process.

STMD POC	Technology Area	NASA Email
Andrew Abercromby	ECLSS & Human Performance Deputy SCL	andrew.f.abercromby@nasa.gov
Angela Krenn	Thermal Management PT	angela.g.krenn@nasa.gov
Bernie Edwards	Comm & Navigation Deputy SCL	bernard.l.edwards@nasa.gov
Bo Naasz	ISAM and Rendezvous, Proximity Operations, and Docking (RPOD) SCL	bo.j.naasz@nasa.gov
Chris Baker	Small Spacecraft Technology PT	christopher.e.baker@nasa.gov
Danette Allen	Autonomous Systems SCL	danette.allen@nasa.gov
Denise Podolski	Observatories, Instruments, Sensors, Optics, and Space Weather PT	denise.a.podolski@nasa.gov
Jason Mitchell	Comm & Navigation SCL	jason.w.mitchell@nasa.gov
Jeremiah McNatt	Power PT	jmcnatt@nasa.gov
Jerry Sanders	ISRU SCL	gerald.b.sanders@nasa.gov
Jim Broyan	ECLSS & Human Performance SCL	james.l.broyan@nasa.gov
John Dankanich	In Space Propulsion and Cryogenic Fluid Management SCL	john.dankanich@nasa.gov
John Vickers	Advanced Manufacturing PT	john.h.vickers@nasa.gov
John Carson	EDL Precision Landing/HPSC TIM	john.m.carson@nasa.gov
Joshua Mehling	Robotics PT	joshua.s.mehling@nasa.gov
Julie Kleinhenz	ISRU Deputy SCL	julie.e.kleinhenz@nasa.gov
Kristen John	Dust Mitigation TIM	kristen.k.john@nasa.gov
Mark Hilburger	Exploration Destination, Structures and Materials PT	mark.w.hilburger@nasa.gov
Michelle Munk	EDL SCL	michelle.m.munk@nasa.gov
Mike Wright	EDL Deputy SCL	michael.j.wright@nasa.gov
Omar Hatamleh	ISRU TIM	omar.hatamleh-1@nasa.gov
Ron Litchford	Propulsion PT	ron.litchford@nasa.gov
Wes Powell	Avionics PT	wesley.a.powell@nasa.gov

PT: STMD Principal Technologist
SCL: STMD Systems Capability Lead
TIM: Technology Integration Manager

CHP: Crew Health and Performance
ECLSS: Environmental Control and Life Support Systems
EDL: Entry, Descent and Landing
HPSC: High Performance Spacecraft Computing
ISRU: In Site Resource Utilization
CFM: Cryogenic Fluid Management

Appendix C. Climate Related Technology

In recognition of NASA's leadership in developing advanced technologies for the benefit of all, proposals related to advancing national capabilities in the following climate-related technology areas with relevance to terrestrial applications will also be considered:

- Clean Energy and Emissions Mitigation Technologies: Clean energy and emissions mitigation technology projects focusing on the research and development, demonstration, or deployment of systems, processes, best practices, and sources that reduce the amount of greenhouse gas emitted to, or concentrated in, the atmosphere.

- U.S. Climate Change Research Program: Earth-observing capabilities to support breakthrough science and National efforts to address climate change.

Specific topic areas could include:

- Reductions in greenhouse gas emissions (including CO_2, CH_4, N_2O, HFCs)
  - Fuel Cells, Batteries, and Energy Storage
  - Carbon Capture, Utilization, and Storage
  - Processes that enhance industrial efficiency, building construction/maintenance efficiency, and reduce emissions
  - Production of clean energy including solar, hydrogen, nuclear, or other clean energy sources
- Sustainable Aviation Technologies
  - Aircraft operational efficiency (including trajectory optimization and air traffic management)
  - Aircraft power, propulsion, and mobility
- Enabling platforms and early-stage instruments for climate-relevant science observations
- Harnessing data for improved visualization and ultimately climate adaptation decision support

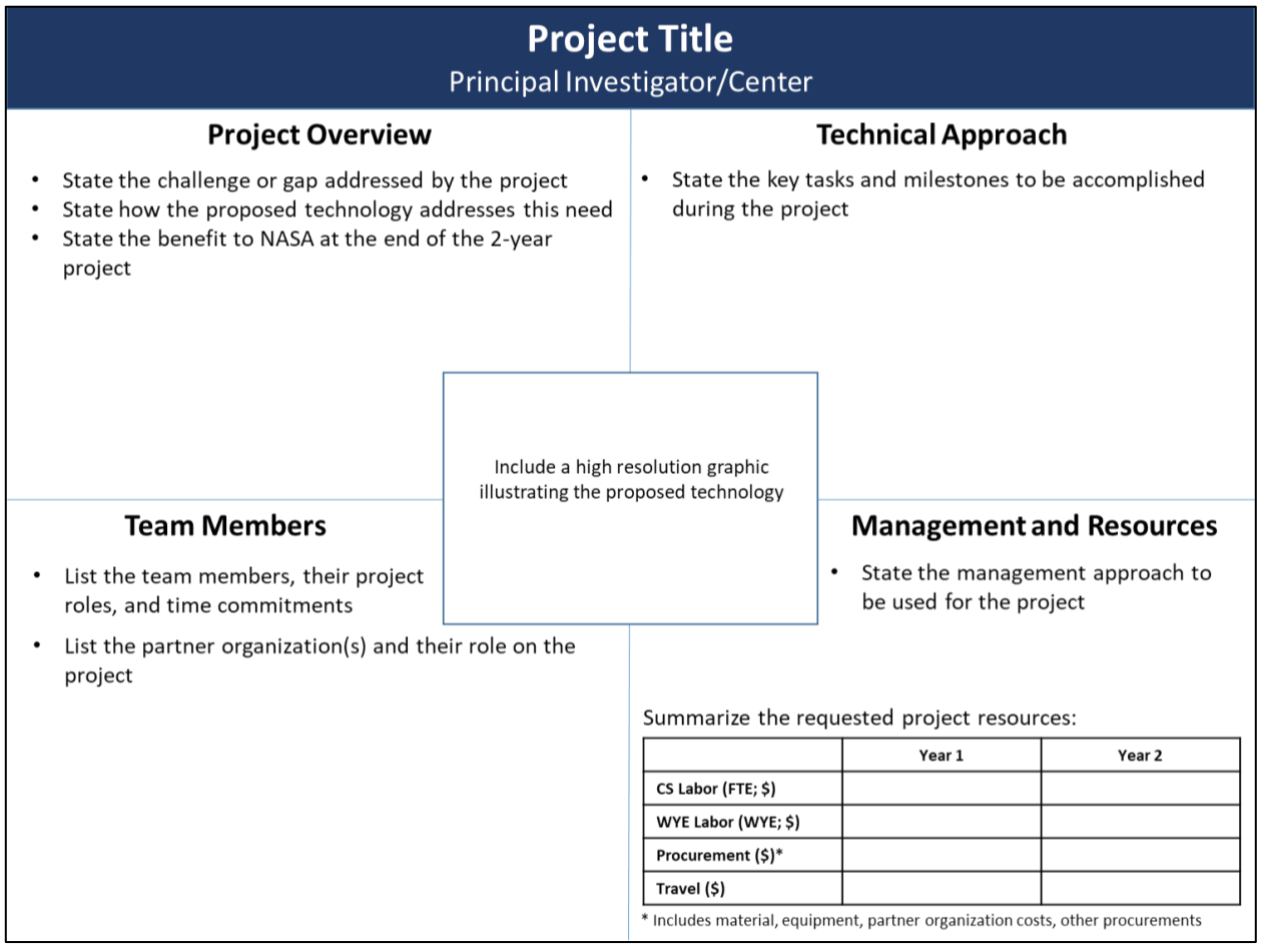
Points of contact for additional information are listed below:

- Clean energy: Jeremiah McNatt (jmcnatt@nasa.gov)
- Nuclear systems: Anthony Calomino (anthony.m.calomino@nasa.gov)
- Hydrogen: Jerry Sanders (gerald.b.sanders@nasa.gov)
- Earth-observing capabilities: Mike Seablom (SMD) (michael.s.seablom@nasa.gov), Chris Baker (christopher.e.baker@nasa.gov), Justin Treptow (justin.treptow@nasa.gov)
- Carbon capture and utilization: James Broyan (james.l.broyan@nasa.gov)
- Harnessing data for improved visualization: Lawrence Friedl (SMD) (lfriedl@nasa.gov)
- Sustainable aviation: Richard Wahls (ARMD) (richard.a.wahls@nasa.gov), Jennifer Cole (jennifer.h.cole@nasa.gov), Jesse Quinlan (jesse.r.quinlan@nasa.gov)

Appendix D: Proposal Overview Chart

An Overview Chart must be included with the proposal. Please use landscape formatting with a legible font size. The chart should be oriented vertically (rotated 90 degrees) to fill a standard 8.5" x 11" page. The chart should not include sensitive or confidential information.

The chart should include the following information:

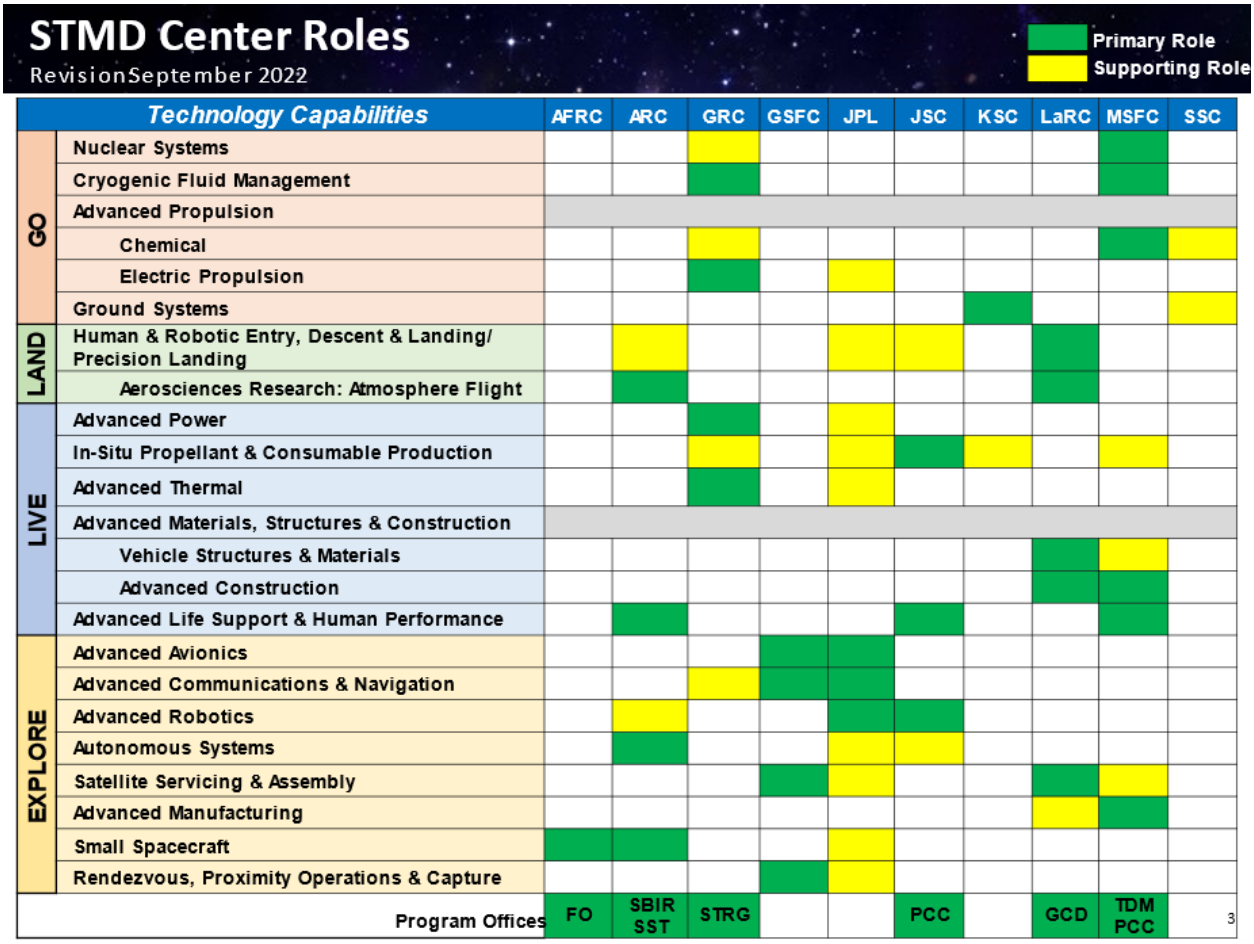


Link to PowerPoint template ECI Proposal Overview Chart Template.pptx

While the chart format does not have to match this format exactly, please incorporate the major chart elements in the quadrants shown. The chart should serve as a stand-alone introduction to the key aspects of your proposal. The Overview Chart will be included in the review package for the Source Selection Official.

Appendix E: STMD Center Roles

We do recognize that the Center Roles in the below chart are organized by the former STMD Strategic Framework. STMD is currently developing an updated Center Roles chart. In the interim, please use the chart below as a general guide in response to this solicitation.



	Technology Capabilities	AFRC	ARC	GRC	GSFC	JPL	JSC	KSC	LaRC	MSFC	SSC
GO	Nuclear Systems			Supporting						Primary	
GO	Cryogenic Fluid Management			Primary						Primary	
GO	Advanced Propulsion										
GO	Chemical			Supporting						Primary	Supporting
GO	Electric Propulsion			Primary		Supporting					
GO	Ground Systems							Primary			Supporting
LAND	Human & Robotic Entry, Descent & Landing/ Precision Landing		Supporting			Supporting	Supporting		Primary		
LAND	Aerosciences Research: Atmosphere Flight		Primary						Primary		
LIVE	Advanced Power			Primary		Supporting					
LIVE	In-Situ Propellant & Consumable Production			Supporting		Supporting	Primary	Supporting		Supporting	
LIVE	Advanced Thermal			Primary		Supporting					
LIVE	Advanced Materials, Structures & Construction										
LIVE	Vehicle Structures & Materials								Primary	Supporting	
LIVE	Advanced Construction								Primary	Primary	
LIVE	Advanced Life Support & Human Performance		Primary				Primary			Primary	
EXPLORE	Advanced Avionics				Primary	Primary					
EXPLORE	Advanced Communications & Navigation			Supporting	Primary	Primary					
EXPLORE	Advanced Robotics		Supporting			Primary	Primary				
EXPLORE	Autonomous Systems		Primary			Supporting	Supporting				
EXPLORE	Satellite Servicing & Assembly				Primary	Supporting			Primary	Supporting	
EXPLORE	Advanced Manufacturing								Supporting	Primary	
EXPLORE	Small Spacecraft	Primary	Primary			Supporting					
EXPLORE	Rendezvous, Proximity Operations & Capture				Primary	Supporting					
	Program Offices	FO	SBIR SST	STRG			PCC		GCD	TDM PCC	

Appendix F: Budget Template

Note: this form should only include project costs beginning October 1, 2025. Do not include labor or procurement funds that may be awarded between project selection and full project start; those funds will be negotiated post-selection.

Constant FY Dollars ($)	**FY26**	**FY27**
Civil Service Labor FTEs		
On-Site Contractor WYEs (Direct)		
On-Site Contractor WYEs (Service Pool)		
Civil Service Labor/Benefits		
Civil Service Travel		
Direct Procurements		
On-Site Contractor Labor		
Materials		
Equipment		
Contracts		
Grants		
Misc. Other Direct Costs (ODC)		
Center Assessments		
Training		
Other		
Service Pool Cost (if applicable)		
Center Management & Operations (if applicable)		
Total Cost		

In a separate text section, please include a justification for each of the applicable budget elements listed above.