

***** Questions and Answers from the ULI Applicant's Workshop held April 15, 2021 *****

Q43: Is the ULI an annual award? What is the frequency of opportunity for this award?

A43: Based on current budgets, NASA plans to release a new ULI solicitation annually in the March-April timeframe.

Q42: Are universities participating in previous ULI awards eligible for new awards?

A42: Yes, previous ULI awardees are eligible for new ULI awards.

Q41: Can a PI submit two proposals?

A41: Yes, a Principal Investigator (PI) can submit more than one proposal for ULI.

Q40: Can a PI be a co-PI in another proposal?

A40: Yes, a PI for one proposal can be a team member in other proposals.

Q39: Is an assistant professor encouraged to be PI? Can permanent residents be PI? Thanks.

A39: Permanent residents, legally employed by the university and meeting the eligibility requirements of the ULI and ROA-2020, can be a PI. Assistant professors can be a PI and are encouraged, as much as other professors, to submit a ULI proposal.

Q38: Can research staff be PIs?

A38: Research staff of an accredited, degree-granting U.S. college or university can serve as a PI.

Q37: Is it mandatory for a proposal to collaborate with other universities? Can a university submit more than one proposal?

A37: The solicitation does not mandate collaboration with other universities, but the evaluation criteria support multi-university participation in ULI. A university can submit for more than one proposal.

Q36: Approximately how many proposals will be selected for Step B?

A36: ULI has a goal of inviting 3-4 times the number of awards to propose for Step-B. However, the actual number invited to Step-B depends on the number of proposals recommended by the Step-A review panels.

Q35: Will both proposals A and B be reviewed by the reviewers provided by the proposal team?

A35: Both Step-A proposals and Step-B proposals will be reviewed by NASA personnel. ULI is not asking proposers to provide reviewers for reviewing their Step-A and Step-B proposals.

Q34: Those PIs from the current and past awards will be invited as reviewers? If so, how would NASA ensure a fair, unbiased review process?

A34: See previous answer (A35). All proposals will only be reviewed by NASA personnel. PIs from current and past awards are not involved in the ULI Step-A and Step-B proposal reviews.

Q33: Would you mind clarifying that NASA colleagues will be reviewers, but no NASA peer reviewers? Does this mean the proposals will be reviewed by peers and then by NASA experts? Thanks.

A33: The question refers to two different ULI phases with different requirements:

- Pre-ULI-award (in the proposals phase, see ULI solicitation Section D.4.6.2): Both ULI Step-A proposals and ULI Step-B proposals will be reviewed by NASA personnel (see answers A35 and A34).
- Post-ULI-award (after proposals have been evaluated by NASA and the selections have been made by NASA for ULI award recipients, see ULI solicitation Section D.4.5.1): Awardees should establish their own methods for regular external peer review of their research progress and reporting of the review results to NASA. These post-award peer reviewers cannot be NASA personnel.

Q32: How important is it to have industrial collaborators versus an industrial advisory board?

A32: The solicitation evaluation criteria do not address either. What matters is that “Under Innovative Teaming and Education” there is a sub-criterion “Integrated team contributes to overall proposal strength.” A proposer

needs to decide among the various teaming options and create a team that makes sense for their proposal.

Q31: Is there some suggestion on the number of industrial partners that should be involved?

A31: The ULI solicitation makes no suggestion as to the number of industrial partners to have on a proposal team. The proposers should bring in industrial partners who are appropriate for their proposal.

Q30: What size of aircraft are of interest? Manned aircraft, or are small and medium unmanned drones also of interest?

A30: The answer depends on the topic and the scope of your proposal. For example, in thrust 1 and 5 all aircraft, including manned aircraft and unmanned drones, are of interest in air traffic management and system wide safety. In thrust 6 and Urban Air Mobility autonomous aircraft are also of interest.

Q29: Can we propose several different size "vision vehicles" or should we stick to just one size/mission?

A29: Depends on the topic and the scope of your proposal. If the question is related to topic 4, there can be multiple vision vehicles/missions as appropriate for advanced air mobility. Under topic 7, the solicitation requires the proposal to focus on the dominant aircraft type/mission that matches your 2050s scenario.

Q28: Especially for Topic 7, Is NASA also interested in General Aviation and Commuter size aircraft? or are they only interested in Single Aisle size aircraft since they have the most environmental impact.

A28: To have the most impact, as per the ULI solicitation, focus on the dominant aircraft in your 2050s scenario.

Q27: Is topic 7 aiming at electrification?

A27: The ULI solicitation does not state Topic 7 is aiming at electrification. ULI welcomes all technical solutions that lead to the desired outcomes of Topic 7.

Q26: Would lightweight and energy efficient actuator devices that improve the energy efficiency of the aircraft apply to topic 7?

A26: The NASA Technical POC cannot discuss specific technologies. If the proposed technology is critical to enabling topic 7 outcomes, then it is of interest.

Q25: For Topic 7, is that only for electric vehicles or that can be near-zero-emission (on carbon lifecycle) gas turbine vehicles?

A25: The NASA Technical POC cannot discuss specific technologies. If it is a critical technology that enables the pathway to Zero Emission Aviation, then it is of interest.

Q24: Reactor technology is considered as being zero-emission?

A24: The NASA Technical POC cannot discuss specific technologies. If the proposed technology is critical to enabling topic 7 outcomes, then it is of interest.

Q23: For Topic 7, are you looking for a final hardware prototype? On the other hand, can a more of software idea be proposed - like design method, design tool, generic to all sizes of aircraft?

A23: A software idea as outlined in the question can be proposed in Topic 7 if it meets the outcomes desired in Topic 7.

Q22: Is it correct that Topic 6 is primarily intended to address uninhabited autonomous air vehicles? Operating in what is presently uncontrolled airspace, presently controlled airspace, or both?

A22: For topic 6, NASA has a Vision and Roadmap for Strategic Thrust 6: Assured Autonomy for Aviation Transformation that is located at <https://www.nasa.gov/sites/default/files/atoms/files/armd-sip-thrust-6-508.pdf>. Concepts that have not yet been worked are of interest.

Q21: Some topics could have an overlap. Can we choose two topics (the main topic and secondary topic)?

A21: Yes, you can choose a primary topic and a secondary topic within your proposal, but your proposal should be submitted in NSPIRES under the

primary topic. The primary focus should be based on the outcomes in the primary topic area. Proposers must explicitly connect their research products to specific outcomes in that primary topic area. Proposers may note compatibility with other topics (secondary topics). Alignment and focus are more important than breadth of applicability. This emphasis supports a “topic-driven” rather than “technology-driven” approach.

Q20: Can one proposal target two of your topics? Or it can only be submitted under one topic?

A20: See previous answer (A21). The proposal should target one primary topic and should be submitted in NSPIRES under one topic.

Q19: Can a proposal involve more than one thrusts? If so, how should it be submitted and reviewed?

A19: See previous two answers (A21 and A20). The proposal can involve more than one thrust but should be submitted in NSPIRES under the primary topic. In Step-A, proposals will be reviewed by panels for each topic.

Q18: Can industry partners receive funds from facility usage time?

A18: Industry partners can receive funds from the ULI award. A ULI award can also fund industry partners for use of their facilities as part of the proposed ULI research.

Q17: In terms of the relevance of the educational content for undergraduates, how would students involved in a capstone project compare to having undergraduate students as researchers?

A17: The ULI goal is to increase undergraduate student involvement in the research. So, both mechanisms are valuable to achieve ULI goals.

Q16: Is it allowed to pay UG researchers or provide stipends for summer research programs?

A16: Yes, you can propose to pay undergraduate students for performing ULI research.

Q15: In the Phase A proposal, what are the commitment expectations for industrial partners? Will a letter of support suffice?

A15: For the Step-A proposal, letters of support from your industrial partners is good.

Q14: How important is geographical diversity?

A14: The ULI solicitation and its evaluation criteria does not mention geographical diversity.

Q13: Do the industry companies have to be OEMs? Are small companies OK?

A13: Original Equipment Manufacturers (OEMs) and small companies are both eligible to be ULI team members and industrial partners.

Q12: Can an OEM be part of proposal team and serve on the advisory board?

A12: An OEM can be part of the proposal team and the advisory board if they do not also serve as the post-award peer reviewers. If, they also serve as the peer reviewers then the non-advocate portion of the ULI requirement must be met by the OEM peer reviewers.

Q11: Are NASA contractors and/or consultants excluded from serving on advisory boards and/or peer reviewers?

A11: NASA contractors can serve on advisory boards and be peer reviewers for ULI awardees.

Q10: I am still confused about the advisory board. Do we propose a board in Step-A or B proposals?

A10: ULI requires “Plans for peer review to assess relevance, technical quality, and performance on a quarterly and annual basis” in Step-B proposals. If your advisory board is performing the peer review, then your plans for the board should be in the Step-B proposal.

Q9: Can an individual be part of a proposal team or is a university etc. affiliation required?

A9: An individual can participate in ULI either as a team member or as a collaborator. A collaborator does not receive funds from the ULI award. To receive NASA funding as a ULI team member an organizational affiliation is required for the individual - see *Guidebook for Proposers Responding to a*

NASA Research Announcement – February 2021 at https://www.nasa.gov/sites/default/files/atoms/files/2021_ed_nasa_guidebook_for_proposers.pdf. The guidebook states that “Each individual shall also identify the organization through which they are participating in the investigation.” It is the organization that receives the requested NASA funds.

Q8: Is there any other mechanism to enable a non-US university to collaborate with the US universities and NASA on ULI topics?

A8: The ULI solicitation does not permit non-US universities to be team members or collaborators.

Q7: Is foreign participation allowed on NASA's no-exchange-of-funds policy for non-US universities?

A7: The ULI solicitation does not permit non-US universities to be team members or collaborators.

Q6: Can you clarify if companies that are incorporated in the US but with a foreign parent company participate?

A6: Companies headquartered outside the USA are not eligible for participating in ULI.

Q5: With the major gas companies being non-US headquarter, options for specific expertise on hydrogen cannot be utilized. So, can there be any waivers or exceptions from NASA on case-by-case basis with restriction put in place for data control?

A5: No exceptions, companies headquartered outside the USA are not eligible for participating in ULI.

Q4: Can a foreign multi-national company be an industry partner on ULI proposal?

A4: No, companies headquartered outside the USA are not eligible for participating in ULI.

Q3: Can you clarify the US companies that are not foreign company subsidiaries? For example, is Embraer operation in U.S. as a U.S. company?

A3: Embraer, being headquartered in Brazil, is not eligible for participating in ULI.

***** End of Q&A from the ULI Applicant's Workshop *****