



# IDEAS · CHALLENGE

ADVANCED RESEARCH PROJECTS AGENCY · INFRASTRUCTURE

## ARPA-I Ideas and Innovation Challenge

### Stage 2

***Note:** This document constitutes the complete official terms and conditions of the ARPA-I Ideas and Innovation Challenge Stage 2, which is **open only to winners from Stage 1 of the Challenge**. U.S. DOT reserves the right, in its sole discretion, to (a) cancel, suspend, or modify the Challenge, and to (b) not award any prizes if no entries or applications are deemed worthy. Any modifications to the ARPA-I Ideas and Innovation Challenge Stage 2 will be reflected in future versions of this document.*

## Overview Information:

- **Federal Agency Name**—Advanced Research Projects Agency–Infrastructure (ARPA-I)  
U.S. Department of Transportation (U.S. DOT)
- **Announcement Type**—Prize Competition Challenge [Open only to Ideas Challenge Stage 1 winners]
- **Dates/Time—All Times are Eastern Time Zone (ET)**
  - **Posting Date:** February 26, 2026
  - **Proposers Day Informational Webinar:** March 2, 2026, 3pm ET
  - **Submission Due Dates:**
    - Technical Proposal - April 13, 2026, 5pm ET
    - One-Page Summary - April 13, 2026, 5pm ET
    - Summary Slide - April 13, 2026, 5pm ET
    - Pitch Video - April 20, 2026, 5pm ET
- **Anticipated individual awards**—Multiple awards are anticipated. Total prize purse has maximum value of \$1,000,000 (including \$300,000 for Stage 1 [completed] and \$700,000 for Stage 2).
- **Types of instruments that may be awarded**—Cash prizes awarded to Team Lead.
- **Agency contacts**—
  - Ideas and Innovation Challenge email: [ideas.arpa-i@dot.gov](mailto:ideas.arpa-i@dot.gov)
  - Ideas and Innovation Challenge website:  
<https://www.transportation.gov/arpa-i/ideas-challenge>
- **Frequently Asked Questions (FAQ):** FAQs for Stage 2 of this Challenge will be compiled as needed.

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## I. Overview

### ARPA-I Ideas and Innovation Challenge Vision and Objectives

Americans are demanding more from our transportation sector—enhanced transportation safety, faster project delivery, lower costs, increased efficiency, and improved resilience against physical and cyber threats for all users. Meeting these goals will require new and emerging innovative transportation technologies that can be scaled, deployed, and commercialized—advanced digital infrastructure, automation, modern air traffic control, novel infrastructure materials, new construction techniques, enhanced operations systems, smart planning tools, precision sensing, high performance computing, incorporation of advanced artificial intelligence (AI) techniques and more.

Authorized in Section 25012 of the Infrastructure Investment and Jobs Act (IIJA, P.L. 117-58; codified at 49 U.S.C. § 119), the Advanced Research Projects Agency–Infrastructure (ARPA-I) of the U.S. Department of Transportation (U.S. DOT) is poised to accelerate and commercialize the essential breakthrough technologies that can tackle these national goals.

The ARPA-I Ideas and Innovation Challenge (Ideas Challenge) is ARPA-I’s call to innovators across the public and private sectors to help identify the most promising and transformative Research and Development (R&D) concepts that have the potential to deliver technologies that radically:

- Enhance the safe, secure, and efficient movement of people and goods,
- Lower the long-term costs of infrastructure planning, construction, and maintenance,
- Strengthen the resilience of infrastructure against physical, natural, and cyber threats, and
- Enhance the United States position as a global leader in advanced transportation infrastructure technologies and materials.

Stage 1 of the Ideas Challenge (completed in December 2025) provided Applicants with the opportunity to describe an innovative technology that has the potential to transform our transportation infrastructure and systems. Stage 2 of the Challenge provides the Stage 1 winners with a further opportunity to propose a potential future R&D project that will further the development and ultimate commercialization and deployment of their innovative technology first proposed in Stage 1. Stage 2 will also provide the opportunity for an invited set of Applicants to present their proposed future R&D projects in person in front of a distinguished panel assembled by U.S. DOT in 2026.

In Stage 1 of the ARPA-I Ideas Challenge in September 2025, U.S. DOT received a total of 448 applications and evaluated the applications according to the published Stage 1 Challenge criteria. A total of fifteen (15) Stage 1 prizes were awarded in December 2025, and the winners attended the ARPA-I Ideas Challenge Bootcamp at U.S. DOT Headquarters in Washington, DC. Those Stage 1 prize winners (“Applicants”) are now eligible to submit a new, more detailed Stage 2 proposal (a “Full Application”) in order to compete for additional Stage 2 prizes.

In Stage 2, U.S. DOT may award additional prizes totaling up to \$700,000 to winning Applicants. The winning proposal ideas in Stage 2 will help to inform the R&D path forward for ARPA-I and U.S. DOT, including its Operating Administrations’ R&D offices. The full structure of the Ideas Challenge includes:

- Stage 1 (Completed December 2025): Each applicant submitted a Concept Paper describing a unique and innovative project idea for developing and commercializing a breakthrough transportation technology and/or capability:
  - ARPA-I awarded fifteen (15) Stage 1 prizes of \$20,000 each in December 2025.
  - ARPA-I invited the Stage 1 winners to the U.S. DOT Ideas Challenge Bootcamp (“Ideas Bootcamp”) on December 9, 2025, where they presented and discussed their concepts with

U.S. DOT R&D leadership and external stakeholders and received feedback to enable them to refine their ideas in anticipation of Stage 2.

- **Stage 2:** All Stage 1 winners are now eligible to submit a Stage 2 Full Application that includes a more detailed technical project proposal that expands upon their Stage 1 concept, including detailed R&D project plans. Following an evaluation of the Stage 2 Full Applications by a senior review team, U.S. DOT expects to select up to 10 finalists to be invited to the Ideas Challenge Finals, an in-person event planned for May or June 2026. This event will span two rounds — in the first round, the finalists will present their R&D project proposals to the senior review team (or a subset of the senior review team). Up to five of these finalists will then be selected to proceed to the second and final round, where they will present their R&D proposals and ideas to a distinguished panel of judges. The panel of judges will make recommendations to the Secretary of Transportation or his designee, who will serve as the final award selection official.
  - U.S. DOT may award prizes totaling \$700,000 in Stage 2 to recognize the best R&D project proposals and plans submitted and presented in the Challenge Finals.
  - Stage 2 prizes may be tiered, but each individual prize will have a maximum value of \$300,000.

## II. The ARPA-I Ideas Challenge

ARPA-I is calling for ideas and proposals that have the potential to transform America’s transportation infrastructure. The Ideas Challenge is an opportunity to break barriers, question long-held assumptions, and drive the next era of transportation infrastructure technologies forward. Successful concepts will lay out a vision and path for the development of potential transformational technologies and identify viable paths to large-scale deployment and/or commercialization within the current public and private infrastructure ecosystem.

*This Challenge is not about incremental change. It’s about rewriting the innovation playbook. The future of transportation is waiting — and we are calling upon U.S. innovators to lead the way.*

In Stage 1 of the Ideas Challenge, applicants submitted Concept Papers that proposed unique and innovative technology ideas by describing:

- The important transportation infrastructure problem being addressed,
- The envisioned breakthrough capability or solution to that problem that could transform the transportation infrastructure of the United States, and
- Initial plans and key metrics that could help define a successful Research and Development (R&D) project as well as the proposed path to operationalization, deployment, and commercialization of that solution.

The teams that submitted Concept Papers that were selected as winners in Stage 1 of the competition are now invited to Stage 2 to further refine their ideas, having received feedback from U.S. DOT and other stakeholders, including investors and end users, at the Ideas Bootcamp in December 2025.

In Stage 2, teams will submit a detailed project proposal (Full Application) that includes a R&D plan that expands on their Stage 1 concepts and will pitch their ideas in a video submission. The teams submitting the best Stage 2 Full Applications will be selected to participate in the Ideas Challenge Finals event (date to be announced) which will include a live in-person pitch competition, with the potential to be selected as Stage 2 winners and to receive additional cash prizes.

Beyond the Ideas Challenge prize competition, Stage 2 project proposals will also form a portfolio of potential breakthrough concepts that can inform the R&D path for ARPA-I and U.S. DOT, including its Operating Administrations (OAs) (<https://www.transportation.gov/administrations>) going forward.

### **III. Challenge Opportunity Description**

Modeled on DARPA, ARPA-I aims to accelerate the development and delivery of breakthrough transportation technologies through a continuously updated and actively managed portfolio of metrics-driven, time-limited R&D programs. ARPA-I-funded programs or projects are focused on delivering transformational change in the transportation sector and are expected to be higher risk with higher potential rewards than traditional research portfolios. Each ARPA-I program typically includes:

- Multiple actively managed R&D projects working to achieve each program's goals through cooperative and competitive approaches under an overall program hypothesis for the envisioned breakthrough capability,
- Multiple phases across a three- to four-year total timeframe; with Go/No-Go decisions between phases based on key metrics, and
- Planning for successful technology transition and commercialization approaches from day one, even for nascent technology concepts.

ARPA-I has three strategic focus areas (see more details in the Stage 1 Challenge document) - Knowledge, Construction, and Optimization, as well as a broad Enabling Technologies category - that align with ARPA-I's Congressional mandate to reduce infrastructure costs, increase transportation system safety, efficiency, and resiliency, and ensure U.S. global leadership in advanced transportation technologies.

Ideas Challenge Stage 2 Applicants will further develop their innovative ideas and concepts identified in their winning Stage 1 submissions and propose a potential future R&D project within the above-mentioned strategic focus areas. The projects proposed in Stage 2 are expected to have a significant potential future impact on technologies that are relevant to one or more of U.S. DOT's Operating Administrations. The best ideas and plans submitted in Stage 2 are intended to inform future R&D efforts within ARPA-I and across U.S. DOT.

### **IV. Stage 2 - Full Application and Submission Information**

Stage 2 Applicants must submit a Full Application that includes the following four elements (refer to Section VII for deadlines and submission instructions):

1. a written Technical Proposal,
2. a supporting written One-Page Summary of the technical proposal,
3. a single presentation Summary Slide describing the technical proposal, and
4. a short, narrated Pitch Video (of up to 3 minutes in duration) and written transcript.

These materials must fully describe a potential future R&D project that could bring the Applicant's innovative technology to commercialization and/or deployment at scale, in order to address a compelling transportation problem that has yet to be solved.

Following a U.S. DOT review of the Full Applications, up to ten (10) Stage 2 Applicants will be invited to an in-person Ideas Challenge Finals event at which the invited Applicants will present and defend their Stage 2 R&D proposals in front of a senior review team. In a second round, up to five of those Finalists will present for a second time to a panel of distinguished judges. The Secretary of Transportation or his

designee will serve as the final award selection official. Following this event, the Stage 2 prize awards will be made by ARPA-I and U.S. DOT.

Requirements for each of the four Application elements are described below:

## **1. Technical Proposal**

The Technical Proposal should expand on the Applicant's Stage 1 concept to fully describe a proposed innovative future research and development project. The proposal shall be written to inform funding, portfolio, and transition decisions and shall emphasize quantitative metrics, risk, and commercialization relevance.

Strong submissions for Stage 2 will clearly describe their proposed technical insights and ideas for breakthroughs in transportation, define a structured plan for their eventual practical deployment, and provide appropriate supporting data, evidence, graphics, figures, and references.

### **Technical Proposal Requirements**

The Stage 2 Full Application shall describe a potential future research and development (R&D) project. Stage 2 submissions will:

- Build directly on the Applicant's Stage 1 concept,
- Clearly articulate the breakthrough capability being pursued,
- Quantify the gap between the current state-of-practice and the proposed performance,
- Identify technical, transition, and commercialization risks, and
- Explain why ARPA-I and U.S. DOT could be appropriate sponsors of the proposed future R&D project.

### **Technical Proposal Structure and Format**

The Technical Proposal is limited to a total of twenty-five (25) pages: consisting of a cover page, and up to twenty-four (24) additional pages that describe the proposed future R&D project in detail. Applicants are strongly encouraged to address the questions in the Heilmeier Catechism<sup>1</sup> in their proposal, follow the structure detailed below and address all elements within the 25-page limit.

Applicants should clearly label and portion mark any Confidential Business Information (CBI) and/or proprietary information in any submission. An additional five (5) pages may be submitted to include a combination of references and resumes of some or all team members and they will not count against the 25-page limit.

- The Technical Proposal must be submitted as a single PDF file no larger than 20MB in total file size. Text in the Full Application may be no smaller than 11-point font size with 1" margins. *Note that the page and file size limit is absolute.* Submissions that exceed 20MB in total submission size will not be accepted and will be ineligible for prizes.

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<sup>1</sup> <https://www.darpa.mil/about/heilmeier-catechism>

## REQUIRED STRUCTURE FOR TECHNICAL PROPOSAL

### 0. COVER PAGE

- Project Title
- Banner or vision statement: “What if we could \_\_\_\_\_.” [fill in the blank]
  - The vision statement should be one sentence that clearly describes the intended impact of the final future transportation infrastructure R&D project, if successful. This future impact can be stated in terms of cost, safety, efficiency, time to delivery, etc. For example, an appropriate vision statement might ask “What if we could construct bridges in half the time, at half the cost, with twice the lifetime, using new AI-assisted designs coupled with additive manufacturing?”
- Topic Area(s)
- Applicant Type (individual or entity/organization)
- Team Lead name and organization (if applicable)
- Names and Organizations (if applicable) of all other team members
- Team Lead contact Information (email, phone, address)

### I. INNOVATION AND IMPACT

#### 1.1 Overall Description

Applicants shall provide a concise description of the proposed effort, written for a technically literate but non-specialist audience. This section shall explain the conceptual basis of the technology and the breakthrough capability being pursued, clearly identify the transportation problem being addressed, and explain the expected performance characteristics using quantitative metrics where possible.

#### 1.2 Potential Impact

Applicants shall describe the expected impact of the proposed future R&D project, including alignment with ARPA-I statutory goals and U.S. DOT priorities, the expected scale of impact, and the degree to which the effort could be transformational relative to current approaches.

#### 1.3 Innovation

Applicants shall explain why the proposed effort is innovative, including key technical innovations, comparison to the state-of-the-art, and clearly defined quantitative technical targets to be achieved in the future potential R&D project. A performance comparison table is strongly encouraged.

#### 1.4 Proposed Future R&D Program

Applicants shall describe what a broader R&D program (consisting of multiple individual R&D projects) might look like, if the proposed effort is one of several projects within a larger program area with a program goal of addressing the broader transportation problem identified in 1.1 above.

### II. PROPOSED WORK

#### 2.1 Technical Approach

Applicants shall describe the technical strategy, any alternative approaches considered, and the scientific or engineering foundations supporting the technical feasibility.

#### 2.2 State-of-Practice and Opportunity

Applicants shall describe how the problem is addressed today, the limitations of existing approaches, relevant performance metrics, and the opportunity created by the proposed approach. Applicants shall

explain why success is plausible now, and why ARPA-I and U.S. DOT could be appropriate sponsors of the proposed future R&D project.

#### 2.3 Technical and Transition Risk

Applicants shall identify key technical, scaling, integration, and transition risks, along with mitigation strategies and decision logic.

#### 2.4 Schedule and Milestones

Applicants shall provide a high-level schedule with major tasks, milestones, Go/No-Go decision points, and quantitative success metrics.

#### 2.5 Task Descriptions

Applicants shall describe each major task, including objectives, milestones, validation activities, and how each task reduces technical uncertainty.

#### 2.6 Success Metrics and Impact Assessment

Applicants shall summarize the project mid-term and final quantitative success metrics and the expected operational, economic, and societal impacts.

### III. TEAM ORGANIZATION AND CAPABILITIES

Applicants shall describe team organization, roles and responsibilities, key personnel, relevant experience, facilities, and locations where work will be performed.

### IV. TECHNOLOGY-TO-MARKET

#### 4.1 Deployment and Commercialization

Applicants shall define a credible path from R&D to deployment, including target customers, commercialization or transition strategy, manufacturing and scalability considerations, and anticipated post-project needs.

#### 4.2 Intellectual Property

Applicants shall identify relevant existing intellectual property and anticipated new IP or data products.

### V. PROJECTED PROJECT COSTS

Applicants shall provide a high-level summary of the projected R&D project costs consistent with a project duration of 24-36 months, aligned with the proposed tasks and milestones.

## 2. One-Page Summary

Applicants must provide a One-Page Summary of their Application that is suitable for public release and does not contain confidential or proprietary information.

The One-Page Summary must include all the following elements:

- Project Title
- Banner or vision statement: “What if we could \_\_\_\_\_.” [fill in the blank]
- Applicant Type (individual or entity/organization)
- Team Lead name and organization (if applicable)
- Names and Organizations (if applicable) of all other team members

- Topic Area(s)
- Abstract: A summary of the proposed future R&D project, describing its objectives, the technical landscape and the problem addressed, the proposed technical, commercialization and transition approach and plan, costs, and its potential impact. The Abstract should be written at a technical level suitable for an undergraduate student. The Abstract alone shall not exceed 500 words. Other required elements (listed above) do not count towards this word limit.

### 3. Summary Slide

Applicants must provide a single presentation slide in PDF format describing their Final Application that is suitable for public release and does not contain confidential or proprietary information.

The Summary Slide should include all the following elements:

- Project Title
- Team Lead name and organization (if applicable)
- (Optional) Names and Organizations (if applicable) of all other team members
- (Optional) Banner or vision statement: “What if we could \_\_\_\_\_.” [fill in the blank]
- Proposed project objectives
- The technical landscape and the problem addressed, including key metrics
- The proposed technical, commercialization and transition approach and plan, costs, and its potential impact.

Applicants are encouraged to add key illustration(s), graph(s), chart(s) and/or table(s) summarizing the technology opportunity and/or its impact to the Summary Slide.

### 4. Pitch Video and Transcript

Applicants must provide a narrated video of up to three (3) minutes in duration that summarizes the proposed future R&D project and its underlying technology, and that is suitable for public release, along with a transcript of the pitch video.

The Pitch Video should summarize the future proposed R&D project objectives, the technical landscape and the problem addressed, including key metrics, the proposed technical, commercialization and transition approach and plan, projected costs, and the potential impact of the future technology.

The Pitch Video must include a live presentation of the team’s pitch, presented by at least one member of the Applicant team. The person speaking must be visible in the video at all times (picture-in-picture is suitable, if desired) and their delivery of the pitch should be an unedited, single take. Editing of other video content, including combining the pitch delivery with other video content, is allowed.

Pitch videos must be provided as a link to a streaming video that can be downloaded and played in a standard web browser (e.g., YouTube, Vimeo).

Applicants must also submit a written transcript of their Pitch Video as a separate file and are encouraged to format their video submissions to also include the option to turn on closed captioning.

## **V. Rules**

### **Eligibility**

Stage 2 of the Challenge is open to those individuals, entities, and teams (collectively, “Applicants”) that received cash prizes in Stage 1 of the U.S. DOT ARPA-I Ideas Challenge. Only Team Leads awarded cash prizes in Stage 1 are eligible to apply as a Team Lead in Stage 2.

Stage 2 Applicants must clearly identify a Team Lead and designate if they are applying as an individual or group of individuals, or as an entity/organization. When applying as an individual or groups of individuals, all named team members must individually and collectively meet the Challenge’s eligibility criteria. When applying as an entity/organization, the entity/organization must meet the Challenge’s eligibility criteria. If any potential Stage 2 prize winner is found to be ineligible for any reason, including for failure to comply with Challenge rules, an alternate winner may be selected.

Applicants may submit only one Stage 2 Full Application as a Team Lead, or as a member of another Stage 2 team (led by another Stage 1 winner). Each Applicant may receive a maximum of one Stage 2 prize.

To be eligible to be awarded a prize under Stage 2 of this Challenge, an Applicant:

1. Shall register to participate in Stage 2 of the Challenge under the rules as outlined in this document.
2. Shall comply with all the requirements under this announcement and any subsequently announced rules for the Challenge prize competition.
3. In the case of a private entity, shall be incorporated in and maintain a primary place of business in the United States or U.S. territory.
4. In the case of an individual, whether participating singly or as a part of a team of individuals, shall be a citizen or permanent resident of the United States or U.S. territory; and
  - a. Shall not be a U.S. DOT employee.
  - b. Shall not be another Federal entity or Federal employee acting within the scope of their employment (all non-U.S. DOT Federal employees must consult with their agency Ethics Official to determine whether Federal ethics rules limit or prohibit the acceptance of a cash prize stemming from a Federally sponsored prize competition).

In addition, the following two restrictions apply to recipients of other Federal funds:

1. Federal grantees or recipients of Federal cooperative agreements may not use Federal funds to develop submissions for this Challenge unless consistent with the purpose of their grant award or cooperative agreement; and
2. Federal contractors may not use Federal funds from a contract to develop prize competition applications or to fund efforts in support of a prize competition submission.

Note: U.S. DOT reserves the right to disqualify any submission that it deems, in its sole discretion, to violate these Official Rules, Terms & Conditions.

### **Liability and Insurance Requirements**

By registering and submitting a Full Application, each Applicant agrees to assume any and all risks and waive all claims against the Federal Government and its related entities, except in the case of willful misconduct, for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from their participation in this competition, whether the injury, death, damage, or loss arises through negligence or otherwise. By registering and submitting a Full Application, each Applicant further represents and warrants that it possesses sufficient liability insurance or financial

resources, *to the extent permitted by applicable law*, to cover claims by a third party for death, bodily injury, or property damage or loss resulting from any activity it carries out in connection with its participation in this competition, or claims by the Federal Government for damage or loss to government property resulting from such an activity. Challenge Applicants shall be prepared to demonstrate proof of insurance or financial responsibility in the event U.S. DOT deems it necessary.

### **Payment of the Prize**

Cash prizes awarded under this Challenge will be paid to the Team Lead directly by U.S. DOT through electronic funds transfer. Winner(s) will be responsible for any applicable local, State, and Federal taxes and reporting that may be required under applicable tax laws. U.S. DOT will comply with Internal Revenue Service withholding and reporting requirements, where applicable. For Full Applications submitted by a team, following payment to the Team Lead, U.S. DOT will not be involved in determining how prize money is divided or distributed amongst the team members.

### **Confidential and Business Information**

Challenge submissions and communication with U.S. DOT are subject to the Freedom of Information Act (FOIA, 5 U.S.C. § 552). If the Full Application includes information that the Applicant considers to be a trade secret or confidential commercial or financial information, the Applicant should do the following: (1) Note on the cover page that the Full Application “Contains Confidential Business Information (CBI)”; (2) mark each affected page “CBI”; and (3) clearly highlight or otherwise denote the paragraph and sentences that contains CBI. U.S. DOT protects such information from disclosure to the extent allowed under applicable law. In the event U.S. DOT receives a FOIA request for the information, U.S. DOT will follow the procedures described in its FOIA regulations at 49 CFR 7.29. Only information that is ultimately determined to be confidential under that procedure will be exempt from disclosure under FOIA. U.S. DOT reserves the right to publish any Full Application information that is not marked as CBI.

### **Usage of Artificial Intelligence (AI)**

Any use of AI tools (i.e. generative AI or large language model [LLM, e.g. ChatGPT]) in the preparation of the Full Application submission must be disclosed on the cover page. If AI tools were used, indicate what AI tool(s) were used, the approximate percentage of the document that was generated or assisted by AI, and briefly describe the purpose of such use (e.g., language enhancement, content generation). Applicants remain fully responsible for verifying the accuracy, originality, and ethical integrity of all content, including AI-generated portions. U.S. DOT reserves the right to reject any Application that U.S. DOT determines in its sole discretion may have used AI in an unreasonable, unethical, or illegal manner.

### **Representation, Warranties, and Indemnification**

By entering the Challenge, each Applicant represents, warrants, and covenants as follows:

- The Applicant is the sole author, creator, and owner of their Full Application (all submitted information);
- The Full Application is not the subject of any actual or threatened litigation or claim;
- The Full Application does not and will not violate or infringe upon the intellectual property rights, privacy rights, publicity rights, or other legal rights of any third party;
- The Full Application does not and will not contain any harmful computer code (sometimes referred to as “malware,” “viruses,” or “worms”); and
- The Full Application, and Applicants use of the Full Application, does not and will not violate any applicable laws or regulations.

If an Applicant is unable to make any of the warranties as stated above, that Applicant must provide a clear written explanation of the reason(s) it cannot make any specific warranty. U.S. DOT will, in its sole discretion, determine whether such explanations are sufficient and acceptable.

## **Intellectual Property of Submissions**

Applicants can utilize intellectual property developed prior to this prize competition as a part of their Full Application. Neither the U.S. DOT nor anyone acting on its behalf will obtain any rights in intellectual property developed prior to or during this prize competition without the prior written consent of the Applicant. By participating in the prize competition, the Applicant is not granting rights in any patents, pending patent applications, or copyrights related to the technology described in their Full Application. However, by submitting their Full Application, the Applicant is granting the U.S. DOT and any parties acting on its behalf certain limited rights as set forth herein.

By virtue of their submission to this prize competition, Applicants grant to U.S. DOT and any parties acting on their behalf the right to:

1. Review, screen, and evaluate submitted materials per the Evaluation Criteria as detailed below.
2. Consider the submitted materials in formulation and establishment of ARPA-I and/or U.S. DOT research programs. Such consideration does not constitute a promise or guarantee of any future funding of such research by ARPA-I or U.S. DOT.
3. Describe the Full Application in any materials created in connection with this prize competition.

Applicant further grants the U.S. DOT, and anyone acting on its behalf, the right to publicize Applicant's name and, as applicable, the name of Applicant's team members and/or the name of any Entity that assisted in preparing Applicant's submission. Such authority includes posting or linking to the Applicant's Full Application on U.S. DOT websites, including the Challenge website, and inclusion of the Applicant's Full Application in any other media, worldwide, subject to the above restrictions relating to confidential business information. More specifically, such authority includes the right to copy, distribute, publicly display, and publicly perform all parts of Applicant's Full Application that would not otherwise be exempt from disclosure under FOIA. Any further use by U.S. DOT, ARPA-I, or anyone acting on their behalf, of Applicant's Full Application or developed technology, will be subject to negotiation with the Applicant's Team Lead.

## **VI. Evaluation Criteria for the Challenge**

The following criteria will be used for the evaluation of Stage 2 Full Applications, listed in descending order of importance: (1) Overall Scientific and Technical Merit; (2) Potential Impact to the ARPA-I and U.S. DOT missions; and 3) Overall Quality of Stage 2 Presentation. Only submissions that meet the eligibility criteria (see Section V, *Eligibility*) will be evaluated.

### **Overall Scientific and Technical Merit**

This criterion involves consideration of the following:

- The quality of the proposed R&D project plan to develop the innovative technology and whether the proposed project could lead to transformational breakthroughs in transportation and infrastructure, when compared to conventional or other alternative approaches.
- The feasibility of success of the proposed R&D plan to develop the conceptual technology, as justified by the technical rationale and supporting information provided, including appropriate metrics.
- Sufficiency of the technical approach and future R&D project plan submitted to accomplish the proposed technical objectives, including identification of the highest technical risks and project risks and how they might be addressed, as well as the overall credibility of the team.
- Clear, compelling, structured responses to the Full Application requirements as laid out in section IV.

### **Potential Impact to the ARPA-I and U.S. DOT Missions**

This criterion involves consideration of the following:

- The potential for a transformational impact for the proposed technology compared to existing or other emerging technologies as laid out in Section I, and how the proposed R&D project will accelerate the development of technology that meets U.S. DOT's overall goals of safety, reduced cost, infrastructure acceleration, innovation, and efficiency.
- Identification of the challenges and risks that must be overcome in the proposed R&D project for the proposed technology to be deployed in the future. Identification of a viable initial framework for transition of the technology to be developed via an operating partner and/or commercial deployment as appropriate for the proposed technology.
- Realism of the proposed potential R&D project cost. This will include an assessment of how realistic the proposed project costs are, in order to allow the stated project goals and objectives to be achieved.

### **Overall Quality of Stage 2 Presentations**

This criterion involves consideration of the following:

- Clarity of Presentations—can the audience understand the proposed technology and future potential R&D project, and follow the content via a clear problem definition, logical flow and good use of visual information?
- Idea Content and Significance—is the proposed work technically compelling, novel and relevant? If the proposed future project is successful, will it lead to radical improvements in our transportation systems?
- Delivery and Engagement—does the presenter(s) connect with the audience with confidence, persuasion and enthusiasm, and deliver a compelling message on the importance of the problem to be addressed, and the technical approach proposed?

Each qualified Full Application will be evaluated based on the criteria above using the following ratings: *Highly Recommended*, *Recommended*, *Acceptable*, and *Not Recommended*. These ratings serve as guidance to select a balanced portfolio of concepts that align with the missions of ARPA-I, as well as the missions and priorities of the U.S. DOT and its Operating Administrations. Stage 2 should be considered an entirely new competition - ratings and assessments from Stage 1 will not be considered in Stage 2.

Example descriptions of Full Applications that could merit each rating are provided below:

*Highly Recommended*—The concept, project, and innovation described in the Full Application have excellent scientific and technical merit and will produce a breakthrough technology that will very likely have transformational impact on the transportation sector, even if high risk. Critical technical and programmatic risks are clearly identified and prioritized, with the proposed future R&D project designed to address the highest risks first with appropriate mitigations proposed where feasible. The proposed R&D project plans (including the video presentation), transition and/or commercialization plans, and the envisioned team, are very credible.

*Recommended*—The concept, project, and innovation described in the Full Application (including the video presentation) have strong scientific and technical merit and will produce a breakthrough technology that will likely have transformational or significant impact on the transportation sector, even if high risk. Critical risks are clearly identified, and appropriate mitigations proposed where feasible. The proposed R&D project plans (including the video presentation), transition and/or commercialization plans, and the envisioned team, are generally credible.

*Acceptable*—The concept, project, and innovation described in the Full Application have acceptable scientific and technical merit and may produce a breakthrough technology that will be somewhat likely to have transformational or significant impact on the transportation sector, even if high risk. Some risks are identified, and mitigations proposed where feasible. The proposed R&D project plans (including the video presentation), transition and/or commercialization plans, and the envisioned team, have deficiencies but are credible for early planning.

*Not Recommended*—The concept, project, and innovation described in the Full Application have one or more of the following: 1) Unacceptable scientific and technical merit that is not likely to produce a breakthrough technology; 2) Proposed technology is not likely to have transformational or significant impact on the transportation sector; 3) Proposed R&D project plans (including the video presentation), and/or transition and/or commercialization plans, and/or envisioned team are not credible or adequately developed.

## **VII. How to Enter**

Applicants must submit their Stage 2 Full Application materials via email to [ideas.arpa-i@dot.gov](mailto:ideas.arpa-i@dot.gov) including a link to a downloadable version of the Pitch Video. To be considered a complete Full Application, all four elements must be submitted before the deadlines stated below for each element. See Section IV of this document for the requirements for each of these elements.

1. Technical Proposal – Deadline: April 13, 2026, 5pm ET
2. One-Page Summary – Deadline: April 13, 2026, 5pm ET
3. Summary Slide – Deadline: April 13, 2026, 5pm ET
4. Pitch Video – Deadline: April 20, 2026, 5pm ET

Applicants should carefully consider how their complete Full Application addresses the evaluation criteria in Section VI of this document, and how it provides all the information necessary for the evaluation of the Full Application.

Full Application materials received after the deadlines listed above will not be accepted and are ineligible for Stage 2 of the Challenge without exception. Please contact [ideas.arpa-i@dot.gov](mailto:ideas.arpa-i@dot.gov) if you experience any technical difficulties while submitting Full Application materials.