

A network diagram background consisting of a complex web of thin grey lines connecting various colored circular nodes. The nodes are scattered across the page and come in a variety of colors including red, blue, green, yellow, pink, purple, and grey. The overall effect is a sense of interconnectedness and a dynamic network structure.

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# Lessons Learned | Implementation of a Federal Prize Competition on Inclusive Innovation Ecosystems

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# Introduction

The Lab-to-Market (L2M) Subcommittee of the National Science and Technology Council's (NSTC) Committee on the Science and Technology Enterprise leads the Federal Government-wide coordination of technology transfer activities. From 2017–2020, it also supported the Lab-to-Market Cross Agency Priority (L2M CAP) goal to improve the transition of federally funded research and development (R&D) from the laboratory to the marketplace as part of the President's Management Agenda.

The Prize Planning Group for the L2M Inclusive Innovation Ecosystem prize competition consisted of interagency members from the L2M Subcommittee, and was led by the

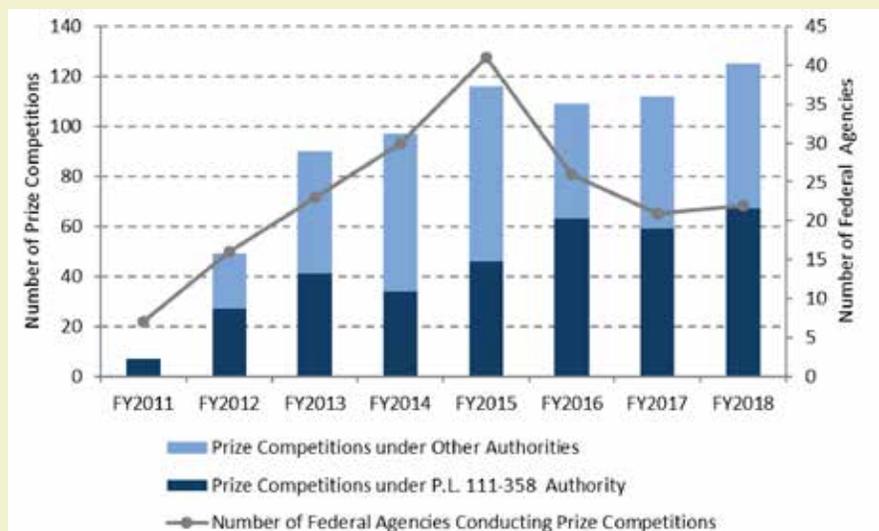
White House Office of Science and Technology Policy (OSTP), the U.S. Small Business Administration (SBA), and the National Institute for Standards and Technology (NIST), with the IDA Science and Technology Policy Institute (STPI) supporting the design and implementation of the prize competition.

This document describes the lessons learned from implementing the L2M Inclusive Innovation Ecosystem prize competition. It is intended to serve as a reference for Federal prize practitioners and, in this vein, identifies exemplar practices and considerations in organizing similar competitions and determining prize winners.

## About Federal Prizes

The use of prizes in the Federal Government has increased since the passage of the America COMPETES Reauthorization Act of 2010 (P.L. 111-358), which provided the head of any Federal agency with the authority to carry out prize competitions to stimulate innovation and advance their agency's mission. Agencies may also use other authorities to conduct prize competitions.

Since 2010, nearly 1,000 Federal prizes have been implemented by Federal agencies.<sup>1</sup>



<sup>1</sup> For further on Federal prizes, see Congressional Research Service. 2020. "Federal Prize Competitions. Washington, D.C.: CRS.

# L2M Inclusive Innovation Ecosystem

## Prize Competition:

### An Overview

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#### Discovery Process

A Strategy Team was convened with the goal to increase engagement with private sector technology development experts and investors. To help meet these goals the group developed multiple milestones, one of which was a prize competition on innovation ecosystems.

#### Goals

To highlight successful examples of innovation ecosystem, in particular existing resources to support underrepresented communities or remarkable responses to the COVID-19 pandemic environment.<sup>2</sup>

#### Prize Categories



Prizes of \$10,000 for past efforts successfully including networks of underrepresented communities in the R&D innovation ecosystem.

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Prizes of \$10,000 for timely and effective responses to the pandemic environment.

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Prizes of \$25,000 for the most creative and actionable ideas that build an inclusive R&D innovation ecosystem.

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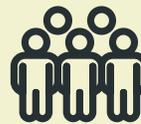
#### By the Numbers



**160+**  
(141 eligible)

**Submissions** were received from private sector for-profit and non-profit organizations, institutions of higher education, and organizations affiliated with State governments, representing 38 States and Territories across the Nation.

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**71**  
Judges

**Subject matter expert reviewers** from non-profit foundations, investment firms, Federal agencies, and other organizations served as judges.

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**18**  
Awards

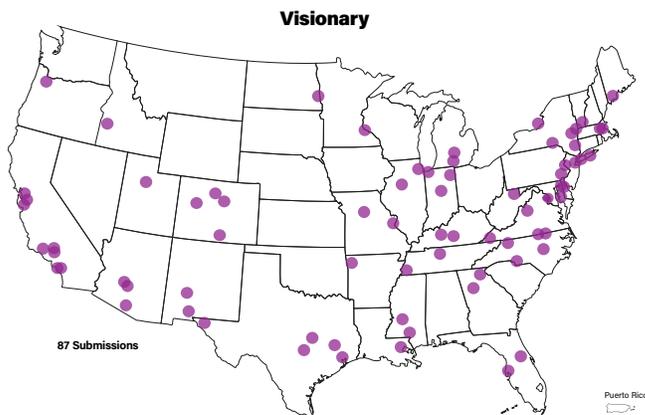
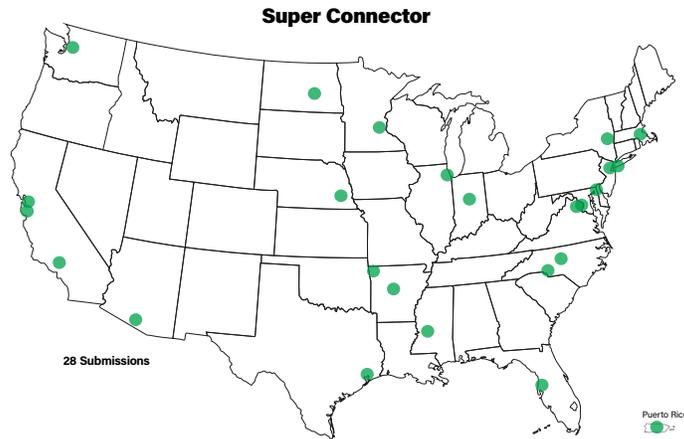
**Prizes** were awarded across the three prize categories, with awardees representing 16 States and Territories.

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<sup>2</sup> For more information about the L2M Inclusive Innovation Ecosystem prize, see <https://www.sbir.gov/l2m>

# L2M Inclusive Innovation Ecosystem Prize Competition: An Overview (continued)

## Geographic Distribution of Submissions



## Timeline and Important Dates



# For Federal Prize Practitioners: How to Use This Document

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This document serves as a case study of the process of implementing the 2020 L2M Inclusive Innovation Ecosystem prize competition. Its purpose is to help inform potential prize administrators as they develop the process to administer their own prizes.

The prize implementation process is described in nine steps. When reading this document, prize administrators should be aware that this is only one example of implementing a prize competition. Any process should be tailored

to each effort's specific goals and needs of the agencies involved as well as communities being targeted by the prize competition. As such, some steps in the prize implementation may be adapted or may not apply.

Each step described in the document includes: a summary of the L2M prize process, the decisions made at each step along with their motivations, and a listing of exemplar practices and considerations.

## Terms to Know

### **Prize Administrators:**

Practitioners reading this document and administering or considering implementing a prize competition.

### **Prize Planning Group:**

Members of the L2M Subcommittee responsible for administering the L2M Inclusive Innovation Ecosystem prize competition.

### **Selection Committee:**

Members of the L2M Subcommittee responsible for considering the judges' evaluations and panel recommendations and selecting the prize winners.

### **L2M Process:**

Nine steps that describe the process used to implement the L2M Inclusive Innovation Ecosystem prize competition.

### **Exemplar Practices:**

Practices that may prove helpful for others in planning prize competitions based on lessons learned by the Prize Planning Group.

### **Considerations:**

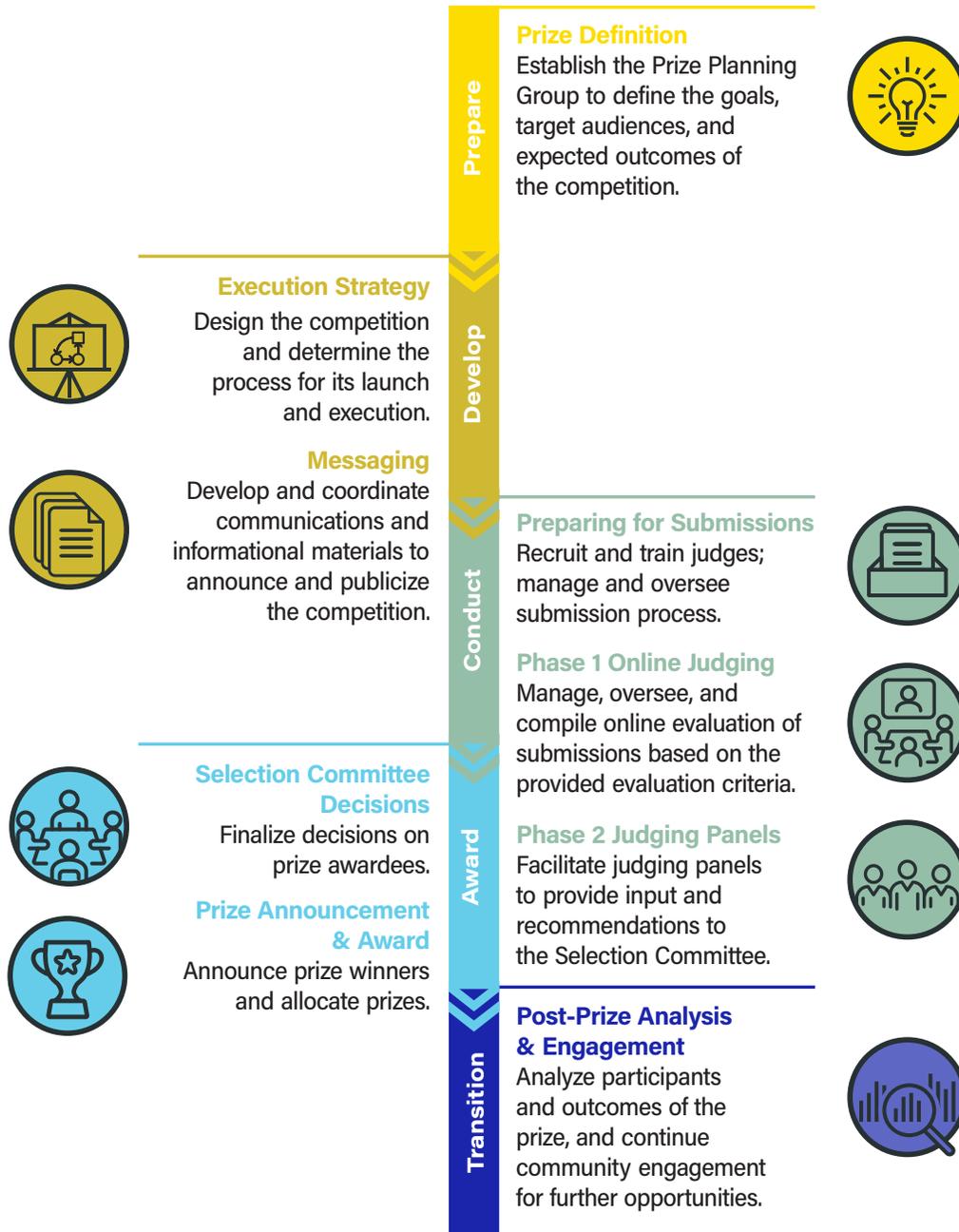
Considerations that planners could take into account when organizing a competition, as well as questions that could be answered at each step of the process before moving forward.

# The L2M Prize Process

This document describes the L2M Inclusive Innovation Ecosystem prize competition process in nine steps.

Administration's (GSA) Challenge and Prize Toolkit: Prepare, Develop, Conduct, Award, and Transition.<sup>3</sup>

Each step can be mapped onto the five phases for implementation of prize competitions referenced in the General Services



<sup>3</sup> GSA. "Challenge Phases." <https://www.challenge.gov/toolkit/>

# L2M Process: Prize Definition

1. The Prize Planning Group conducted a literature search and issued a Request for Information (RFI) to help define innovation ecosystem and gather community input on the focus and design of the prize competition. The text of the RFI questions are included in Appendix A.
2. Initially, the Prize Planning Group had envisioned a prize competition to develop a software tool. Based on the RFI responses and identifying how the prize funds could make the most impact, they decided to change the scope of the prize to instead recognize past activities or highlight innovative future ideas.
3. The competition was focused on supporting ecosystem builders as important connectors in the innovation ecosystem, with the goal to raise awareness of successful examples of activities or ideas to support inclusive innovation ecosystem.



	<b>Flexibility</b>	<b>Alignment</b>	<b>Interagency Feedback</b>
<b>Exemplar Practices</b>	Avoid being too prescriptive in defining what the final solution should look like, as the goal of hosting a prize competition is to find innovative solutions that would not have been found through other means.	It is still important to have a clear understanding of the value of the prize to advancing broader goals (e.g., L2M goals) and the prize’s strategic role within broader initiatives. The RFI helped to provide additional input.	Interagency feedback can provide a sounding board and buy-in on the direction and scope for the prize competition and focus of prize categories, and can allow for understanding of initiatives and needs across other innovation ecosystem of interest to different agencies.
	<b>Community Input</b>	<b>Soliciting Input</b>	
<b>Considerations</b>	Community input can have varying degrees of usefulness, depending on whether the target audience is already determined. It can help to define terms and collect ideas. An RFI can be helpful to attract a broad audience and be designed to standardize the feedback.	Other less formal opportunities could be considered to solicit input, such as public listening sessions.	

# L2M Process: Execution Strategy

1. After consulting with various prize administrators and GSA and conducting a cost-benefit analysis, the Prize Planning Group decided to organize the competition internally, rather than use an external vendor to administer the prize.
2. The judging process was split into two phases, with online written judging evaluations during the first phase and virtual panel meetings for the second phase. The second panel phase was rationalized as a way to integrate and support interactions across the judges, who were considered a part of the innovation ecosystem communities targeted by the prize.
3. The Prize Planning Group finalized three prize categories and their respective prize amounts.
  1. **Ecosystem Responder** - \$10,000.
  2. **Super Connector** - \$10,000.
  3. **Visionary** - \$25,000.
4. Analysis of past similar Federal prizes in fiscal years 2018 to 2019 informed the setting of prize amounts.
5. A prize management plan and timeline that was updated weekly with the Prize Planning Group and STPI provided a transparent way to monitor and delegate activities.

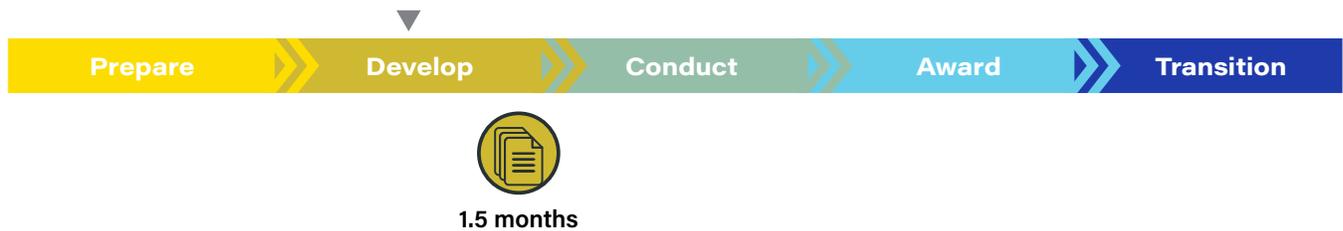


1.5 months

	Cost-Benefit Analysis	Timelines	Stakeholder Roles
Exemplar Practices	The cost-benefit analyses and other analyses of past Federal prize competitions helped inform the execution strategy and justify decisions based on evidence.	It is very important to establish and enforce the expected timelines and expectations for implementation, (e.g., prize management plan and timeline, data management) as well as incorporating buffers into the schedule to accommodate unexpected changes or delays.	It is also important to ensure that relevant stakeholders (e.g., judges, interagency members, prize organizers) understand their roles and time commitment ahead of their participation in the competition process.
Considerations	Vendors	Partners	
	Using a vendor can alleviate much of the logistical burden to agency prize administrators but may also require additional funds. The cost to administer the prize can be as low as the time spent from Federal employees and, in some cases when using vendors, as high as 70% of the intended prize purse.	Prize administrators should consider potential partners as appropriate and if aligned with their goals. These partners can be internal and external to government and can help leverage costs and other resources to improve coordination, provide a potentially larger, more attractive prize purse, and enhance visibility.	

# L2M Process: Messaging

1. The Prize Planning Group developed the rules and regulations for the competition, as well as launching the official announcement and website on Challenge.gov and on SBA's website.
2. The group disseminated a promotional flyer and information about the competition on the website, through interagency channels, including newsletters managed by the SBA for its entrepreneurial community, and in collaboration with the Federal Laboratory Consortium for Technology Transfer (FLC) to reach the Federal technology transfer community.
3. The Prize Planning Group hosted a virtual webinar to provide additional information and answer any questions from potential submitters.
4. In addition to the rules, the Prize Planning Group established criteria for evaluation for each of the three prize categories, which was made available to potential submitters.



	<b>Interagency Channels</b>	<b>Communication Vehicles</b>	<b>Anticipated Documents</b>
<b>Exemplar Practices</b>	Interagency members of the Prize Planning Group can help publicize the competition across different R&D communities and sectors.	When developing messaging materials, it is important to consider the different vehicles, such as flyers, webinars, tweets, and online announcements, and the organizations that could be leveraged to help market the prize to the intended audiences.	Internal planning and external information materials should be developed in advance to decrease the logistical burden near the launch of the prize. Specifically, the evaluation criteria should be made available to potential submitters as soon as the submission portal opens.

	<b>Communication Vehicles</b>	<b>Evaluation Criteria</b>
<b>Considerations</b>	<p>When determining which vehicles to use to disseminate information about the competition, several guiding questions might be considered:</p> <ol style="list-style-type: none"> <li>1. Who are the potential submitters to the competition?</li> <li>2. What existing connections exist to reach the submitter communities, and what channels are used to communicate to them?</li> <li>3. How much time is needed for the information to reach potential submitters?</li> </ol>	Simple evaluation criteria have the benefit of ensuring that diverse perspectives are integrated into the prize judging process. However, overly-ambiguous criteria can lead to misinterpretations and inconsistencies of key considerations for judging the prize. At the very least, it is helpful to ensure that the key terms are clearly defined in the evaluation criteria.

# L2M Process: Preparing for Submissions

1. The Prize Planning Group recruited judges from existing diverse networks across the L2M and innovation ecosystem support communities.
2. In recruiting judges, a minimum threshold of judges was calculated based on the desire to have at least three different judges evaluate a single submission.
3. The Prize Planning Group also developed the documentation and online infrastructure needed to easily implement the Phase 1 judging, including:
  1. An instruction manual for the judges.
  2. A judging rubric.
  3. A scratch template for initial evaluations.
  4. An online submission portal for final evaluations.
  5. Email templates to be used when delivering the evaluation packages to judges.



2 weeks

	Judge Confirmation	Time Allocation	Anticipated Documents
Exemplar Practices	It is helpful to finalize the list of confirmed judges ahead of time, ideally before submissions close. This list should also include additional judges that are willing to serve as back-ups in the event that more submissions are received than planned for the number of initial judges expected.	Allow for sufficient time to process, vet submissions for eligibility, and allocate submissions to judges in a coordinated and standardized fashion. To aid this process, eligibility criteria should be well understood to ensure that submissions can be vetted simply and quickly. The prize evaluation rubric is in Appendix B.	As with messaging activities, any and all planning documentation that can be developed ahead of the closing of the submissions should be produced in advance.

	Processing Submissions
Considerations	<p>Prior to sending evaluation packages and assigning submissions to judges, several questions should be considered to help the process run smoothly:</p> <ol style="list-style-type: none"> <li>1. How will participants be submitting their materials?</li> <li>2. How will the materials and information be extracted from the submission platform(s)? Are there ways to automate this process?</li> <li>3. How will prize administrators handle submissions that are late, incomplete, duplicates, additions, or revised?</li> <li>4. How will prize administrators decide which submissions are eligible?</li> <li>5. How much time will prize administrators have to compile the evaluation packages?</li> <li>6. How many judges are necessary to recruit?</li> </ol>

# L2M Process: Phase 1 Online Judging

1. Immediately after the submission window closed, the Prize Planning Group used an automated process to extract the submission materials from the online portal and vetted each submission for eligibility in accordance with competition rules.
2. Eligible submissions were automatically assigned to confirmed judges, and judges were asked to screen for any potential conflicts of interest with their initially assigned submissions.
3. After conflicting submissions were reassigned, the judges received their full evaluation package and submission materials, which they used to evaluate and later submit their evaluation through an online portal.
4. The Prize Planning Group held two office-hours sessions during the Phase 1 judging period to answer any questions or address concerns.



<b>Exemplar Practices</b>	<b>Data Management</b>	<b>Conflicts of Interest</b>	<b>Judge Communication</b>
	Data management was a critical aspect of the Phase 1 judging process, and using automated approaches to extract information from online portals cut down on time and effort needed for manual data processing.	Conflicts of interest were managed quickly and efficiently so that evaluation packages were delivered promptly.	It was helpful to have frequent communication with the judges to align their interpretation of the evaluation criteria and address any questions about the L2M Inclusive Innovation Ecosystem prize competition goals and processes.
<b>Considerations</b>	<b>Delays</b>		<b>Criteria Clarifications</b>
	Administrators should expect and prepare for delays in judges confirming their participation or completing their evaluations, and should consider contingencies including: <ol style="list-style-type: none"> <li>1. How will you handle judges that do not submit their conflicts of interest in a timely manner?</li> <li>2. What if there are not enough confirmed judges and some judges are overburdened with evaluations as a result?</li> <li>3. Will back-up judges recruited after the submission window closes have the same amount of time for their evaluations?</li> </ol>		We found that several judges expressed confusion over the definitions for inclusion and underrepresented communities, so prize administrators should be sure to clarify any definitions that are crucial to the prize criteria.

# L2M Process: Phase 2 Judging Panels

1. The Prize Planning Group extracted the judges' scores from the Phase 1 evaluations, calculated standardized average scores, and ranked the submissions for each category based on their scores. The methodology for standardizing scores is included in Appendix C.
2. A virtual panel was held for each prize category, where an assigned primary judge for each submission summarized its merits to the other judges on the panel. Secondary judges provided additional feedback and ensured multiple perspectives for all submissions.
3. Prior to the panels, judges were provided with the standardized average scores and evaluations from other judges, including comments, for each submission.
4. Judges that could not attend the panel were able to provide additional comments to the Prize Planning Group in advance of the panel to share with the rest of the judges.
5. At the conclusion of each panel, each submission was placed into one of three recommended categories:
  1. Prize Candidate
  2. Recognition Worthy/Honorable Mention
  3. Not Competitive



1 week

<b>Exemplar Practices</b>	<b>Panels</b>	<b>Facilitation Responsibilities</b>	<b>Consensus</b>
	Panels allow judges to have a voice, and allow the administrators to rely on the panel members' expertise rather than raw scores to model "prize-worthiness."	It is important to delegate responsibilities for facilitation of the panels (e.g., time-keeping, note-taking) ahead of time, with backup staffing to help with any unexpected issues that arise.	Complete consensus is not necessary for each submission, as the whole of the discussion will be used to make the Selection Committee's final decisions. Judges will have differing opinions of submissions, and the value of the panel is to hear a variety of perspectives on the merit of each submission.
	<b>Considerations</b>	<b>Missing Judges</b>	<b>Ranking Methodology</b>
Some judges may not be able to attend the panel for their category. Administrators should consider how to allow those judges to voice their comments and how to fairly assess submissions that do not have the full representation of the judges that evaluated them.		The methodology for ranking submissions based on raw scores should be transparent to the judges. The purpose of rankings is to provide an initial sorting of submissions, not to constrain judges' considerations.	Consideration should be given to the appropriate size for the panels, as larger panels may make it more difficult for judges to connect and communicate with each other. Smaller panel sizes can allow for more inter-judge communication that can lead to continued connections after the competition is complete.

# L2M Process: Selection Committee Decisions

1. The judges' panel recommendations and comments were passed on to the Selection Committee, which was composed of members of the NSTC L2M Subcommittee who were involved in planning the competition.
2. Based on the judging panel recommendations, the Selection Committee determined the final prize awardees for each category.
3. Although all winners were selected from those submissions evaluated highly by judges, the final selection considered additional factors, such as the geography, demographics, and socioeconomic diversity of the targeted communities for the pool of winners.



<b>Exemplar Practices</b>	<b>Selection Committee Criteria</b>	<b>Interagency Participation</b>
	Additional factors considered in the selection process, such as by a Selection Committee, should be defined ahead of time and made transparent to judges that such factors will be taken into account in addition to their recommendations.	Including core interagency members and diverse Federal perspectives into the decision-making process can help align the result of the competition with the broader initiatives the competition supports.
<b>Considerations</b>	<b>Non-Monetary Prizes</b>	<b>Vetting Winners</b>
	Prize administrators should consider whether non-monetary prizes or some other form of recognition, such as honorary mentions, will be given to a subset of submissions, and the vehicle to accomplish this.	Prize administrators should also consider how to vet whether an awardee is eligible to receive a prize, and how the prize will be reallocated in the event that a submitter is ineligible or that a submitter's organization may not be able to receive Federal monetary prizes.

# L2M Process: Prize Announcement & Award

1. Following the Selection Committee's decisions, the Prize Planning Group verified the eligibility of each of the selections to receive prizes in each category.
2. The conclusion of the competition was announced via a webinar on November 17, 2020. The announcement was during Global Entrepreneurship Week, and the final celebration and announcement of the winners was held on February 18, 2021 during National Entrepreneurship Week.
3. The allocation of prize funds to the winners was handled through SBA's administrative processes. The funds were initially part of an interagency agreement, which took some time to process. The vetting of winners and allocation of the funds required development of new administrative processes and forms at SBA.



<b>Exemplar Practices</b>	<p><b>Funding Mechanisms</b></p> <p>Different agencies have different processes for transferring funds, as well as different comfort levels and familiarity with making prize awards, so the ease or difficulty of the process will vary depending on the prize administrators and other agencies involved.</p>	<p><b>Awardee Contact</b></p> <p>Prize administrators should make an effort to stay in contact with winners throughout to communicate plans for announcing the winners and processes to provide them with the prize funds.</p>	<p><b>Award Messaging</b></p> <p>The Prize Planning Group worked with FLC and published communications timed with National Entrepreneurship Week to generate buzz in relevant communities about the award ceremony, which was attended by 128 attendees. The Prize Planning Group also coordinated the award ceremony with NIST, who also announced winners for another Federal prize.</p>
	<p><b>Internal Agency Communication</b></p> <p>Prize administrators should have clear and open lines of communication with the relevant parts of their agency to develop or follow standardized processes to allocate the prize funds. They should be aware of the roles and responsibilities of each contributing agency to ensure the efficient allocation of prize funds to winners.</p>	<p><b>Relevant Events</b></p> <p>Leveraging standing events that are relevant to the goals of the prize as well as Federal and non-Federal partners can help amplify the visibility and audience for the award ceremony and help engage the ecosystem for further communication.</p>	<p><b>Communications Capabilities</b></p> <p>Agencies may wish to develop a communications strategy as early as possible in the first "Prepare" phase of implementation, and leverage communications capabilities through partnerships with other Federal agencies or related organizations to amplify the messaging and recognition of the winners.</p>

# L2M Process: Post-Prize Analysis & Engagement

1. After the judging process, the Prize Planning Group developed a questionnaire for judges to identify process improvements for future prizes and strategies for future engagement with judges and the broader innovation ecosystem community.
2. The Prize Planning Group conducted an analysis of the pool of submissions—including the demographics of submitters, the solutions proposed, and target audiences—and the Federal and non-Federal partner roles.
3. The Prize Planning Group established an L2M Inclusive Innovation Ecosystem Updates newsletter to engage with stakeholders involved in the prize and those who showed initial interest in the L2M Inclusive Innovation Ecosystem prize competition through the website.



<b>Exemplar Practices</b>	<b>Continued Engagement</b>	<b>Analysis</b>
	It is important to continue to engage relevant stakeholders following the end of the competition, including disseminating information about the outcomes of the prize, as not all interested parties may have seen the official communications.	Analyzing the community of submitters, including their organizations, activities, and Federal partners, can help identify opportunities for future engagement between the Federal Government and the network of submitters.
<b>Considerations</b>	<b>Outcome Transitions</b>	<b>Connections between Stakeholders</b>
	Prize administrators should consider how to transition the outcomes of the prize competition to other opportunities, such as Federal programs, and how post-prize analyses of submitters and input from judges can inform those decisions.	As appropriate and based on the goals, prize administrators should consider ways to continue connections with all of the stakeholders involved with the prize competition, including judges, submitters, and Federal stakeholders. Options can include newsletters, email listservs, working groups, or other forms of regular communication.

# Appendix A. L2M Prize Request for Information

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1. Describe specific examples of local, State, regional, or industry-vertical innovation ecosystem initiatives related to innovation ecosystem mapping. Include examples that could serve as models for a national map or examples that could easily be adopted and adapted by others, and why would they be good models.
2. What existing tools or platforms currently achieve the goals of the proposed competition, or could be easily adapted? What limitations exist with these existing tools or platforms?
3. What are examples of successful resource mapping for traditional main-street businesses that may be relevant for R&D-based businesses? What key components of tools for traditional businesses are relevant for R&D-based businesses?
4. Describe examples of business models for sustainability and maintenance of entrepreneur resource tools or similar initiatives that do not rely on continued Federal funding.
5. What information or data resources are critical for innovation ecosystem stakeholders, and for what purpose? Does the data currently exist in an accessible manner, or are new data resources needed? What are potential sources to fill gaps in information or data resource needs?
6. What could the Federal Government do to make Federal datasets available so that open market sources could develop and maintain innovation ecosystem mapping tools? What challenges do stakeholders face when accessing existing resources?
7. How might the Federal Government support the integration of online innovation ecosystem maps tailored to specific innovation ecosystem stakeholder groups? Tailored to specific industries? Tailored to specific geographic regions?
8. How attractive are the goals or questions to a broad audience of potential solvers?
9. How much time is needed to develop a prize submission?
10. In what categories should prizes be awarded? Potential categories might include stage of development or targeted audience.
11. What criteria or metrics should judges use to identify winning competition entries?
12. What are minimal dollar amounts for the award that would make the prize attractive to solvers?
13. What are factors or reasons that may influence individuals or teams to compete in the proposed prize competition? Comments may reflect considerations about potential solutions, if any, that may be available to address barriers to competing.
14. Provide other suggestions for how a competition could best be structured to achieve the goals described, facilitate fair and open competition, allow for entrants to be successful, and incentivize sustainable community-driven solutions to support entrepreneurs.
15. Other thoughts not captured above?

# Appendix B. L2M Prize Evaluation Criteria

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## Criteria for the Super Connector and Ecosystem Responder Prizes

### **Criterion A: Quality and Clarity of Submission**

Evaluate the criterion based on the entirety of the submission package, including the slide deck, video, and any letters of support. The focus should be on the content in the materials, rather than its production value or attractiveness. For instance, some materials may have typographical or grammatical errors. We encourage you to focus less on these matters and more so on whether the submission clearly conveys the intended message and responds to prompts requested for the prize competition. A submission, for example, that provides vague descriptions, partial responses, or content that is difficult to understand may score less than one that conveys a well-articulated story and addresses all prize prompts clearly and completely.

### **Criterion B: Alignment with Competition Goals**

Evaluate the criterion based on whether the submission (1) aligns with the prize competition goals and broader Lab-to-Market efforts to “improve the transfer of federally funded technologies from laboratories to the marketplace” and (2) positively affects underrepresented groups in the submitter’s R&D ecosystem. The submission identifies how the community they support is underrepresented in the R&D innovation ecosystem and how their efforts benefit this community. A submission that does not provide evidence of these activities may score less than one that does.

### **Criterion C: Economic and Social Impacts**

Evaluate the criterion based on whether the submission (1) shows evidence of a positive economic or social impact on the ecosystem, such as new businesses, jobs created or saved, or other return on investment and (2) led to increased participation in the ecosystem among underrepresented groups. The submission demonstrates the effect of their efforts in the ecosystem and the benefit they’ve provided to the other ecosystem stakeholders. The submission demonstrates that their efforts have increased participation in the R&D ecosystem among underrepresented groups. A submission that does not provide evidence of this impact may score less than one that does.

### **Criterion D: Use of Federal Resources**

Evaluate the criterion based on whether the submission made successful use of Federal resources in their activities. You may consider how well the submission made purposeful use of Federal datasets, or otherwise intentionally leveraged one or more Federal resources. The submission not only makes use of Federal resources but also amplifies and extends them to better integrate resources and increase their visibility in the ecosystem. A submission that does not include the Federal resources, or if their use is purely incidental, may score less than one that makes purposeful use of Federal resources and increases their usability.

## Criteria for Visionary Prizes

### **Criterion A: Quality and Clarity of Submission**

Evaluate the criterion based on the entirety of the submission package, including the slide deck, video, and any letters of support. The focus should be on the content in the materials, rather than its production value or attractiveness. For instance, some materials may have typographical or grammatical errors. We encourage you to focus less on these matters and more so on whether the submission clearly conveys the intended message and responds to prompts requested for the prize competition. A submission, for example, that provides vague descriptions, partial responses, or content that is difficult to understand may score less than one that conveys a well-articulated story and addresses all prize prompts clearly and completely.

### **Criterion B: Ingenuity/Creativity**

Evaluate the criterion based on the novelty or creativity of the proposed idea. You may consider the degree to which the approaches are original, as well as the application of the approach to the specific field or ecosystem described in the submission. A submission that uses previously applied approaches in a familiar problem space may score less than one that proposes new relevant approaches that are potentially scalable.

### **Criterion C: Alignment with Competition Goals**

Evaluate the criterion based on whether the submission (1) aligns with the prize competition goals and broader Lab-to-Market efforts to “improve the transfer of federally funded technologies from laboratories to the marketplace” and (2) positively affects underrepresented groups in the submitter’s R&D ecosystem. The submission identifies how the community they support is underrepresented in the R&D innovation ecosystem and how their efforts benefit this community. A submission that does not provide evidence of these activities may score less than one that does.

### **Criterion D: Measurable Goals and Feasibility**

Evaluate this criterion based on whether the submission includes clearly articulated goals that are feasible and have measurable outcomes. You may consider potential risks in the approaches proposed in the submission. The submission includes benchmarks to communicate both base-level goals and stretch goals as well as the level of effort required to realistically achieve each level. A submission that does not describe measurable goals or does not include elements of the plan relating to feasibility may score less than a submission that includes goals and benchmarks for the proposed approach that are clear and realistic.

### **Criterion E: Use of Partner Entities**

Evaluate this criterion based on whether the submission has defined the role of potential partner entities and has the potential to effectively leverage ecosystem resources. You may consider any former, current, or future partnerships/working relationships with Federal, State, regional, and/or local entities that the submission highlights, including any details on past collaboration efforts. The submission convincingly communicates and demonstrates that resources from different partners will be leveraged in a way that will result in ecosystem growth that is greater than the sum of the individual partners’ contributions. A submission that does not clearly identify and demonstrate support from proposed partners may score less than a submission that does.

# Appendix C. Calculating Standardized Scores

The submission rankings for each prize category for Phase 2 Judging Panels were based on a set of standardized scores generated from the evaluation criteria scores judges provided during Phase 1 Online Judging. The standardized scores were generated to factor out the tendency of the judges to assign higher or lower scores to the subset of submissions they were assigned. For each evaluation criterion, the Prize Planning Group:

1. Subtracted the judge mean (the average of all scores assigned by a judge for a single criterion) from the assigned score.
2. Divided the result by the judge standard deviation (the standard deviation across all scores assigned by a judge for a single criterion).
3. Rescaled the resulting score to the metric of the original criterion by multiplying the score by the criterion standard deviation and adding the criterion mean.

Subsequent to this, the Prize Planning Group averaged the standardized criterion scores for each submission to create an overall standardized score. The overall standardized score was used to rank the submissions into three bins (low, mixed, and high) to facilitate the judges' discussion during Phase 2 Judging Panels.

An illustrative example of the calculation process is included below for a fictitious "Criterion A," along with a formula for computing the scores.

$$\text{Overall Mean} + \text{Overall Standard Deviation}^* \\ ((\text{Original Score} - \text{Judge Mean}) / \text{Judge Standard Deviation})$$

Submission	Judge	Criterion A - Original Score	Criterion A - Judge Mean	Criterion A - Judge Standard Deviation	Criterion A - Standardized Score	Criterion A - Overall Mean	Criterion A - Overall Standard Deviation	Criterion A - Standardized Score (Rescaled)
1	1	4	3.5	0.71	0.7	3.2	1.48	4.236
2	1	3	3.5	0.71	-0.7	3.2	1.48	2.164
3	2	5	3	2	1	3.2	1.48	4.68
4	2	3	3	2	0	3.2	1.48	3.2
5	2	1	3	2	-1	3.2	1.48	1.72

# Contributions

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## **L2M Prize Planning Group:**

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A background network diagram consisting of a complex web of thin grey lines connecting various colored circular nodes. The nodes are scattered across the page and include colors such as red, blue, green, yellow, pink, purple, orange, and black. The overall structure is a dense, interconnected graph.

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