

# AASHTO Innovation Initiative

[Proposed] Nomination of Innovation Ready for Implementation

## Sponsor

Nominations must be submitted by an AASHTO member DOT willing to help promote the innovation

1. Sponsoring DOT (State): Virginia Department of Transportation

2. Name and Title: Hari Sripathi, Director, Office of Strategic Innovation

Organization: Virginia Department of Transportation

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3. Is the sponsoring State DOT willing to promote this innovation to other states by participating on a Lead States Team supported by the AASHTO Innovation Initiative?  Yes  No

## Innovation Description (10 points)

The term “innovation” may include processes, products, techniques, procedures, and practices.

4. Name of the innovation:

Innovation Lab

5. Please describe the innovation. Describe how this innovation transforms your existing “state of play.”

Innovation Lab is a friendly competition among VDOT teams and each team included a person from the maintenance field Area office, one from the Residency office, two from the District office, one from Central Office, one from the Research division, and one from Core development program (new graduates).

Innovation Lab was set up as a way to generate ideas, validate, develop prototype and present them to the senior executives too make decisions on implementation. Innovative ideas are typically generated by individuals and submitted through the chain of command or entered in to an idea capturing system and reviewed by a subject matter expert. This process also allowed VDOT to instantly test the validity with the broad spectrum of VDOT staff and Executives for their applicability to VDOT. VDOT used this opportunity to crowdsource ideas from the participants and also conducted voting on the already known potential innovative ideas. This also allowed VDOT to educate the participants in a methodical Innovation Process.

6. If appropriate, please attach photographs, diagrams, or other images illustrating the appearance or functionality of the innovation (if electronic, please provide a separate file). Please list your attachments here. Attach photographs, diagrams, or other images here.

Innovation Lab Agenda

7. Briefly describe the history of its development.

VDOT initiated a focused approach to address the innovations taking place in the world and also promote innovative culture within VDOT. VDOT created office of strategic innovation to lead the priority strategic innovations and also setup a process to promote innovations in VDOT. Part of the review of other agencies indicated that there are opportunities to crowdsource innovations. VDOT developed the Innovation Lab concept with a combination of best practices from other agencies. From the basic concept of Idaho Transportation Department’s innovation competitions, VDOT created Innovation Lab.

## State of Development (40 points)

Innovations must be successfully deployed in at least one State DOT. The All selection process will favor innovations that have advanced beyond the research stage, at least to the pilot deployment stage, and preferably into routine use.

8. How ready is this innovation for implementation in an operational environment? Please check of the following options. Please describe.

Prototype is fully functional and yet to be piloted

- Prototype demonstrated successfully in a pilot environment
- Technology has been deployed multiple times in an operational environment
- Technology is ready for full-scale adoption

Click or tap here to enter text.

9. What additional development is necessary to enable routine deployment of the innovation? What resources—such as technical specifications, training materials, and user guides—are already available to assist with the deployment effort?

Agenda, and other Innovation Lab material is available.

10. Has any other organization used this innovation?  Yes  No

If so, please list organization names and contacts. Please identify the source of this information.

Organization	Name	Phone	Email
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.

## Potential Payoff (30 points)

Payoff is defined as the combination of broad applicability and significant benefit or advantage over other current practice (baseline).

11. How does the innovation meet customer or stakeholder needs in your State DOT or other organizations that have used it?

Innovation Lab eliminated layers of reviews of good ideas and brought them to the attention of the senior executives resulted in implementation of two ideas that broadly effect the agency and in the development stage of three more ideas. This also allowed many more ideas generated and voted on to prioritize the development to take them to the next stages of prototyping. Some more ideas are being considered to be included in the bigger VDOT initiatives and projects. The judging of the competition was done by the

participants for one prize and the executive team for another prize and this allowed the validation/acceptance of ideas by the representatives of the entire department staff and the executives. Innovation Lab ideas created opportunities for significantly improved efficiencies and created entirely different though process.

12. What type and scale of benefits have your DOT realized from using this innovation? Include cost savings, safety improvements, transportation efficiency or effectiveness, environmental benefits, or any other advantages over other existing baseline practice. Please identify the following benefit types:

Check boxes that apply	Benefit Types	Select a rating from the drop-down menu
<input checked="" type="checkbox"/>	Cost Savings	5-High
<input type="checkbox"/>	Shortened Project/Service Delivery Schedule	Choose an item.
<input checked="" type="checkbox"/>	Improved Customer Service	4-Moderate to High
<input checked="" type="checkbox"/>	Improved Quality	6-High to Exceptional
<input type="checkbox"/>	Environmental Benefits	Choose an item.
<input checked="" type="checkbox"/>	Organizational Efficiency	7-Exceptional
<input checked="" type="checkbox"/>	Improved Safety	5-High
<input checked="" type="checkbox"/>	Improved Operation Performance	3-Moderate
<input checked="" type="checkbox"/>	Improved Asset Performance	3-Moderate
<input type="checkbox"/>	Other (please describe)	Choose an item.

Provide an additional description, if necessary:

Innovation Lab benefits depend the leadership support and expectations of the participants, creation of safe environment for the participants to freely think and generate prototypes.

13. Please describe the potential extent of implementation in terms of geography, organization type (including other branches of government and private industry) and size, or other relevant factors. How broadly might the technology be deployed?

This can be deployed by any agency of any size at any number of locations. It requires creation of an open environment and set expectation for people to think freely along with facilitators that nurture the ideas.

## Market Readiness (20 points)

The All selection process will favor innovations that can be adopted with a reasonable amount of effort and cost, commensurate with the payoff potential.

14. What specific actions would another organization need to take along each of the following dimensions to adopt this innovation?

Check boxes that apply	Dimensions	Please describe:
<input checked="" type="checkbox"/>	Gaining executive leadership support	<a href="#">Click or tap here to enter text.</a>
<input type="checkbox"/>	Measuring performance (e.g. benefits documentation)	<a href="#">Click or tap here to enter text.</a>
<input type="checkbox"/>	Improving technology understanding	<a href="#">Click or tap here to enter text.</a>
<input type="checkbox"/>	Overcoming financial constraints	<a href="#">Click or tap here to enter text.</a>
<input type="checkbox"/>	Addressing legal issues (if applicable) (e.g., liability and intellectual property)	<a href="#">Click or tap here to enter text.</a>
<input checked="" type="checkbox"/>	Acquiring in-house expertise	<a href="#">Click or tap here to enter text.</a>
<input type="checkbox"/>	Resolving conflicts with existing regulations and standards	<a href="#">Click or tap here to enter text.</a>
<input type="checkbox"/>	Other Challenges	<a href="#">Click or tap here to enter text.</a>

15. What is the estimated cost, effort, and length of time required to deploy the innovation in another organization?

Please describe:

**Cost:** If setup centrally, cost of travel and room accommodation. Cost could be reduced if multiple local sessions are setup.

**Level of Effort:** [Click or tap here to enter text.](#)

**Time:** Set the agenda, logistics for meeting accommodations, training material, speaker arrangements etc.

16. To what extent should the implementation of this innovation require the involvement of third parties, including vendors, contractors, and consultants? If so, please describe. List the type of expertise required for implementation.

This could be done in-house with help from training staff, admin staff for logistics and an internal Innovation Champion to lead.

## Meeting Agenda

### Day 1: Wednesday, May 8<sup>th</sup>, 2019

10:00 AM – 11:00 AM	Registration	
11:00 AM – 11:15 AM	Welcome & Introductions <i>Agenda Walk Through</i> <i>Expectations for the event</i>	Hari Sripathi
11:15 AM – 12:00 PM	Major Innovations – Cone of Vision <i>Ideas on the wall</i> <i>Judging criteria and presentation format</i> <i>Gracious professionalism</i>	Hari Sripathi
12:00 PM – 1:00 PM	Lunch	
1:00 PM – 1:30 PM	Innovation Process	Katherine Clark
1:30 PM – 2:00 PM	Innovation Culture & Mindset <i>Training remedies</i>	Bill Danzeisen
2:00 PM – 2:30 PM	Idea Generation & Brainstorming	Participants
2:30 PM – 3:00 PM	Break <i>Put ideas on the wall</i>	
3:00 PM – 3:30 PM	Workforce of Tomorrow Update	Holly Cockrell
3:30 PM – 4:30 PM	Team Discussion <i>Discuss which ideas to work on</i> <i>Pick a primary and backup idea</i> <i>Provide feedback on the innovation process and employee engagement</i>	Participants
4:30 PM	Adjourn	

## Day 2: Thursday, May 9<sup>th</sup>, 2019

7:00 AM – 8:00 AM	Breakfast	
8:00 AM – 11:00 AM	Teams	Participants
	<i>Work on the solutions</i>	
11:00 AM – 12:00 PM	What It Takes To Be An Innovator	Tom Harmon <i>Director, FHWA Innovation Office</i>
12:00 PM – 1:30 PM	Lunch	Wayne Stillwell
	Innovation and Robotics	<i>PhD – CEO, Stillwell Technology and Robotics</i>
1:30 PM – 4:30 PM	Teams	Katherine Clark
	<i>Continue working on the solutions</i>	
4:30 PM	Adjourn	

## Day 3: Friday, May 10<sup>th</sup>, 2019

7:00 AM – 8:00 AM	Breakfast	
8:00 AM – 8:15 AM	Teams	Participants
	<i>Set up presentation boards</i>	
8:30 AM – 9:45 AM	Judging	Participants
	<i>Walk around to visit each presentation board and fill out scoresheet</i>	
9:45 AM – 10:15 AM	Break	
	Notify Winning Teams	
10:15 AM – 10:45 AM	Message from the Chief Deputy Commissioner	Rob Cary
10:45 AM – 11:30 AM	Award Ceremony	
	<i>Presentation of top ranked solutions and awards</i>	
11:30 AM	Boxed Lunch	



## **Innovation Lab-Scoresheet**

**Idea Validation/Stakeholder Identification-**

- The team clearly identifies objectives and planned outcomes that align with the agency’s mission and improve program delivery.
- The team appropriately identifies stakeholders impacted by, or who can impact, the idea.

**Solutions/Proof of Concept-**

- The team has considered alternative solutions and ROI.
- The group has presented a feasible idea and well thought out development plan with recommendations for implementation.

**Presentation-**

- The team clearly communicates their “elevator speech” that addresses the problem and solutions.
- The team presents a compelling argument to support the solution they are proposing and is enthusiastic about/invested in carrying the idea through to implementation.

**Instructions:** Each district will be scored on the three categories outlined above. For each category, give the team a score of 1-5 (1= does not align with judging criteria, 5=aligns perfectly with judging criteria)

<b>District</b>	<b>Idea Validation/ Stakeholder Identification</b>	<b>Solutions/ Proof of Concept</b>	<b>Presentation</b>	<b>Comments</b>
Bristol	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Culpeper	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Fredericksburg	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Hampton Roads	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Lynchburg	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
NOVA	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Richmond	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Salem	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Staunton	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	