

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

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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:

VDOT OnScene - Livestream Video from the field - for consultation, situational awareness and information sharing

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

A lot of VDOT employees have agency use Smartphones. They use them for routine business for emails, text and phone calls. VDOT has implemented a Google integrated environment for email, chat, Hangouts Meet etc. There is a significant opportunity to improve the situational awareness by sharing the video with Smartphone livestream feature available in the Google Meet. From an incident scene, instead of scribbling over the phone or emailing pictures, on scene responders can share the video with the traffic operations center, turn the phone in to CCTV and allow for quicker dispatch of correct resources and manage the traffic. This will also allow the on scene personnel to get quicker consultation from the subject matter experts such as Bridge Engineers when the bridges get hit. An inspector on a construction project can get consultation from the subject matter experts or provide visual progress update to managers in real time. Field maintenance personnel can do the same as well in their work. Equipment maintenance personnel can troubleshoot problems or get help from senior technicians when dealing with vehicle breakdowns in the field.

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.

Click or tap here to enter text.

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 that effort, VDOT created a friendly competition with multidisciplinary teams and one of the teams proposed the idea of turning each one of the Smartphones in to livestreaming video to improve situational awareness, better and quicker decision making.

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

VDOT staff are using this at various places on an ad-hoc basis and we are in the process of creating a communication bulletin to educate the entire workforce with the availability of this feature for their use.

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?

Internal setup by the agencies with the communications tools that they already have with processes and procedures.

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.
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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?

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 checked="" type="checkbox"/>	Shortened Project/Service Delivery Schedule	4-Moderate to High
<input checked="" type="checkbox"/>	Improved Customer Service	6-High to Exceptional
<input checked="" type="checkbox"/>	Improved Quality	3-Moderate
<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	6-High to Exceptional
<input checked="" type="checkbox"/>	Improved Asset Performance	4-Moderate to High
<input type="checkbox"/>	Other (please describe)	Choose an item.

Provide an additional description, if necessary:

Benefits depend on the implementation in different business units for different use cases. For example, deployment in the incident management will greatly yield quicker lane clearance times, implementation in construction projects will improve the quality and eliminate delays in getting consultation from the subject matter experts.

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 someone to understand the availability of the tools and create a bulletin with the explanation of how to use them properly. It also requires each work unit to setup proper call groups for different situations and different use cases. Anyone with a Google account can be added to the list if Google Meet is the tool used.

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	Click or tap here to enter text.
<input type="checkbox"/>	Measuring performance (e.g. benefits documentation)	Click or tap here to enter text.
<input checked="" type="checkbox"/>	Improving technology understanding	Click or tap here to enter text.
<input type="checkbox"/>	Overcoming financial constraints	Click or tap here to enter text.
<input type="checkbox"/>	Addressing legal issues (if applicable) (e.g., liability and intellectual property)	Click or tap here to enter text.
<input checked="" type="checkbox"/>	Acquiring in-house expertise	Click or tap here to enter text.
<input type="checkbox"/>	Resolving conflicts with existing regulations and standards	Click or tap here to enter text.
<input type="checkbox"/>	Other Challenges	Click or tap here to enter text.

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

Please describe:

Cost: Depends on the agency data plans.

Level of Effort: Click or tap here to enter text.

Time: Time to understand the availability of tools and technologies and time to setup the user groups.

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 by business units with help from mobile phone and information technology teams.