



General activity update to the CTB's IT Subcommittee

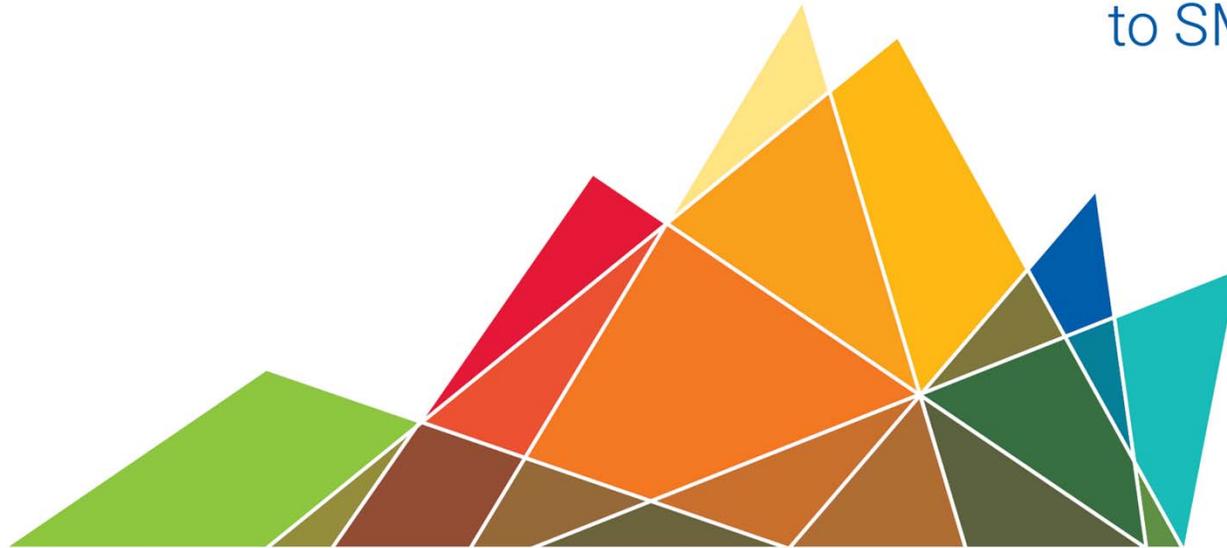
December 6, 2017
Robert Cary, PE, LS
VDOT - Chief of Innovation



VDOT is Innovating

SMARTERROADS.org

VIRGINIA
America's Home
to SMARTER**ROADS**



VDOT | SMARTER**ROADS**

SmarterRoads.org usage

Users representing 144 organizations have signed up for the data portal.

Private businesses, research, localities, MPO's/PDC's, News Media, Consulting Firms, Contractors, to citizens.

Our Top 10 data sets used are:

- 1. Traffic Volumes (ADT) – 109**
- 2. Crashes – 93**
- 3. Map Data – 78**
- 4. Road Construction – 59**
- 5. VDOT Incidents – 56**
- 6. Quarterly Crash Data – 54**
- 7. Paving Schedules – 53**
- 8. Speed Limit data – 53**
- 9. Traffic Sensor stations – 51**
- 10. Signal Controller Status – 48**

How is VDOT Innovating?

Taking Innovative Approaches to Evaluate

- Lidar/photogrammetric salt volumes (Developing RFI)
- Kiosks for WIFI, emergency calling, national calling, and information at rest areas, VRE lots, Metro, dense urban (Developing RFI)
- Datathons across the state (4-5 to be held by summer)
- PPP's in the Technology Arena (Evaluating Opportunities)
- VTRC (Continuing to lead in research)
- Leadership in national Connected Vehicle pooled fund study (Lead state)
- Truck Platoon testing (I-66 and Route 28)
- E-invoicing (Procuring a solution)
- Cybersecurity of our operational technology (Continuing to test and ensure security)
- VDOT/VTTI Smart Road opening and groundbreaking (November 14th)
- Drone Incident and Event Response (Drone in a Box)
- Drone Accident Reconstruction (Working with VSP, MD meeting)

Drone Usage in Virginia







VDOT Connected Vehicle Pooled Fund Study

CV PFS

- The CV PFS is co-hosting its biannual meeting in NOVA this week in close coordination with FHWA's TFHRC. The meeting is being hosted in NVTVA. The group will participate in demos and tours of both FHWA and VDOT facilities on Wednesday, December 6th.
- The Connected Vehicle Pooled Fund Study (CV PFS) is a partnership of transportation agencies who have established a program to facilitate the development and evaluation of Connected Vehicle applications
- The program will prepare state, local, and international transportation agencies for the deployment of Connected Vehicle technologies



VDOT Connected Vehicle Pooled Fund Study

CV PFS

- The program will result in the following outcomes:
 - Development and demonstration of connected vehicle technology, algorithms, tools and applications
 - Preparation for field deployments
 - Development and deployment documentation
 - Lessons learned and identification of challenges from field deployments
- Core/Voting Members
- VDOT is lead agency with technical/administrative support from UVA

20 Core Members:

- *California, Delaware (pending), FHWA, Florida, Georgia, Maricopa County, Maryland, Michigan, Minnesota, New Jersey, New York, Ohio, Pennsylvania, Tennessee, Texas, Transport Canada, Utah, Virginia, Washington, and Wisconsin*



VDOT Connected Vehicle Pooled Fund Study

CV PFS

Associate Members

- Palm Beach Co, FL; Oakland County (MI); MTC (Bay Area); SANDAG (San Diego); Los Angeles County Metropolitan Transportation Authority (Metro); Arizona DOT; Rijkswaterstaat; and North Texas Toll Authority

Liaisons

- TRB's NCHRP/SHRP 2 Programs; AASHTO (strategic and deployment plans)



I-95 Corridor Coalition Workshop on CAV

December 11-12, 2017
Baltimore, MD

I-95 Corridor Coalition's Connected and Automated Vehicles
Workshop

Agenda focuses on "What should we be doing today for the CAV
of tomorrow."

Topics include:

- Infrastructure & Asset Management
- Systems, Data, Communications/Networks
- Education / Outreach and Key Stakeholders
- Policies and Legislation and Planning



SmarterROADS.org data portal Datathons

On November 16-17, VDOT supported Fairfax County on their **Transportation and Mobility Hackathon**.

- Meant to encourage collaboration among local talent to create innovative, new technologies to, among other objectives:
 - Relieve congestion
 - Improve safety
 - Make it easier to get around, especially for seniors, people with disabilities and others
 - Advance autonomous and connected vehicle technology
- Hackathon leveraged SmarterROADS.org data and the Fairfax County GIS data.
- The lessons learned through this event that will help VDOT as we organize **3-4 additional datathons across Virginia** in the next 6-9 months working with CIT and university partners to help support and promote these upcoming events.



Alliance for Transportation Innovation

On December 13, 2017, the Alliance for Transportation Innovation supported by VDOT will hold their “**Disruptive Innovations in Transportation Conference**” will spotlight innovation affecting the automated transportation sector, both globally and locally, in and around Virginia.

- Governor and Secretary Layne are scheduled to attend
- Preparing for the 5G Enabled Transformation in Transportation
- How Data is Transforming the Safe and Efficient Movement of People and Goods
- How Today’s Best Practices Enable the CAV Future
- How Drones, Sensors and Video are Transforming Transportation
- Cybersecurity in Transportation
- Planning for in Increasingly Autonomous Future

Connected Automated Vehicle Program Plan

- This document was a collaborative effort among many VDOT disciplines and provides a guide for everyone involved in the program.
- The plan was presented to VDOT's CAV Steering Committee with comments received in October.
- Final review underway and will be ready for presentation at the next IT Subcommittee meeting.



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