

Connected Vehicle Pooled Fund Study Overview

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VDOT's Vision for Connected and Automated Vehicles

VDOT envisions a future environment where Connected and Automated Vehicle applications provide connectivity between vehicles, roadside infrastructure and wireless devices.

This interconnected environment is expected to meet the following objectives:

- Increased Safety
- Improved Mobility
- Reduced Infrastructure Investments
- Enhanced Traveler Information



Connected and Automated Vehicle Program Development

- Full-Time Program Manage since Fall 2016
- Connected and Automated Vehicle Executive Steering Committee Established

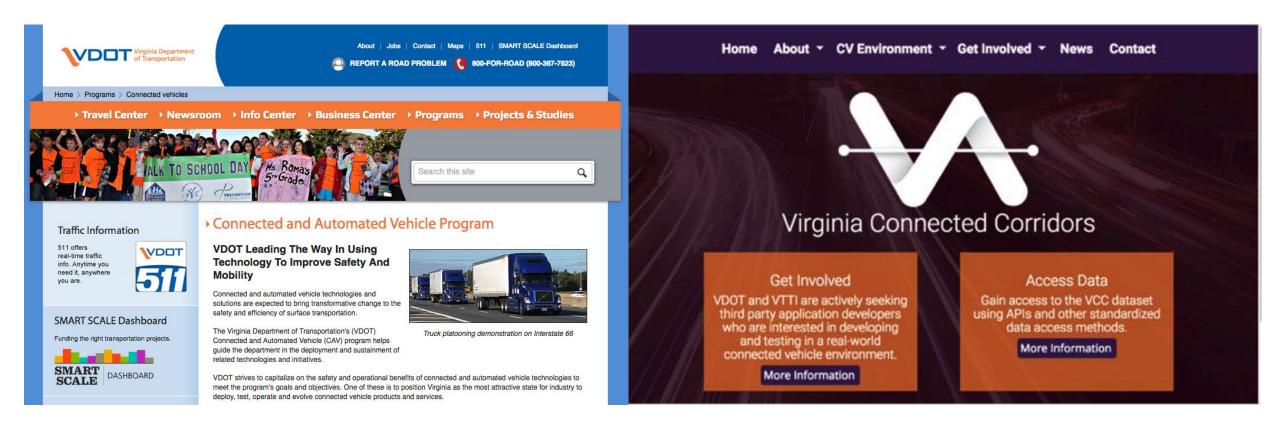
Sets strategic direction and priorities for VDOT's CAV Program, including outreach & advocacy, implementation and more

 Connected and Automated Program Plan -Available Now at http://virginiadot.org/automated



VDOT's CAV Program Plan and More is Online

Please visit http://virginiadot.org/automated



Connected Vehicle Pooled Fund Study? What's that?!

- 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

Objectives

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



Current Membership



















































2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Phased Program History

PFS Phase I

2009/07 – 2012/08 \$763K 7→10 members

Research to educate connected vehicle technologies

PFS Phase II

2012/09 – 2016/01 \$1,122K 10→14 members

Develop and field testing connected vehicle applications

PFS Phase II

2016/02 – 2018/12 \$960K 14→22 members

Continue develop and field testing CV applications

PFS Phase IV

201<mark>8/5 – 2020/6</mark> \$1,800K 21 members

Continue develop and field testing CV applications

MMITSSI

2011/10-2013/7 \$625K FHWA \$500K / PFS \$125K

ConOps, Sys Req, Sys Design

MMITSS II

2013/8-2016/6 \$1,875K FHWA\$1,500K / PFS \$375K

Sys Development and Field Testing

MMITSS III

2017/4-2019/9

\$762.5K FHWA\$450K/ PFS\$312.5K Deployment Readiness Enhancement

CTCS

V2I Queue Warning

Total: \$8,385,000

PFS: \$5,535,000

FHWA: \$2,850,000 (MMITSS, CTCS)

4

Current Projects

- Connected Traffic Control System (CTCS): Research Planning and Concept Development
 - Conducted by WSP USA (PI: Tom Timcho)
- Multi-Modal Intelligent Traffic Signal System Phase III:
 Deployment Readiness Enhancements
 - Conducted by University of Arizona (PI: Larry Head) and California PATH (PI: Kun Zhou)
- Basic Infrastructure Message Development and Standards Support
 - > Conducted by Southwest Research Institute (PI: Michael Brown)

Visit the CV PFS Website for Ongoing and Completed Research Projects



Program to Support the Development and Deployment of Infrastructure Based Connected Vehicle Applications



All the reports can be found on the research page of the CV PFS Website

http://www.cts.virginia.edu/cvpfs_research

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Thank you!

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