Connected and Automated Vehicle Program Plan

January 10, 2018

Robert Cary, PE, LS

Chief of Innovation

Overview of Connected and Automated Vehicle Program Plan

- Vision
- Goals and Objectives
- Engagement in National Initiatives
- VDOT's CAV Deployment Work Program

Connected and Automated Program Vision

VDOT's vision for CAV's is to ***capitalize on the safety and operational benefits*** of CAV technologies to meet its goals and objectives.

VDOT also has the vision to position Virginia as ***the most attractive state*** for industry to deploy, test, operate and evolve CAV products and services.

Virginia's Strengths in CAV

- No Regulations
- Consistent Highway System
- Focus on State of Good Repair
- Leading Implementation/Proven Innovation Leader
- Extremely Capable and Knowledge-based workforce
- University Expertise
- World-Class Testing Facilities
- Leader in Cybersecurity
- Cloud-Based Data Portal – SmarterROADS.org
- Enhanced Traveler Information
- Dedicated ITTF Funding

CAV Program Goals

- Increased Safety by reducing crash potential
- Improved Mobility by managing system performance
- Reduced roadside Infrastructure Investments
- Enhanced Traveler Information about surrounding traffic conditions

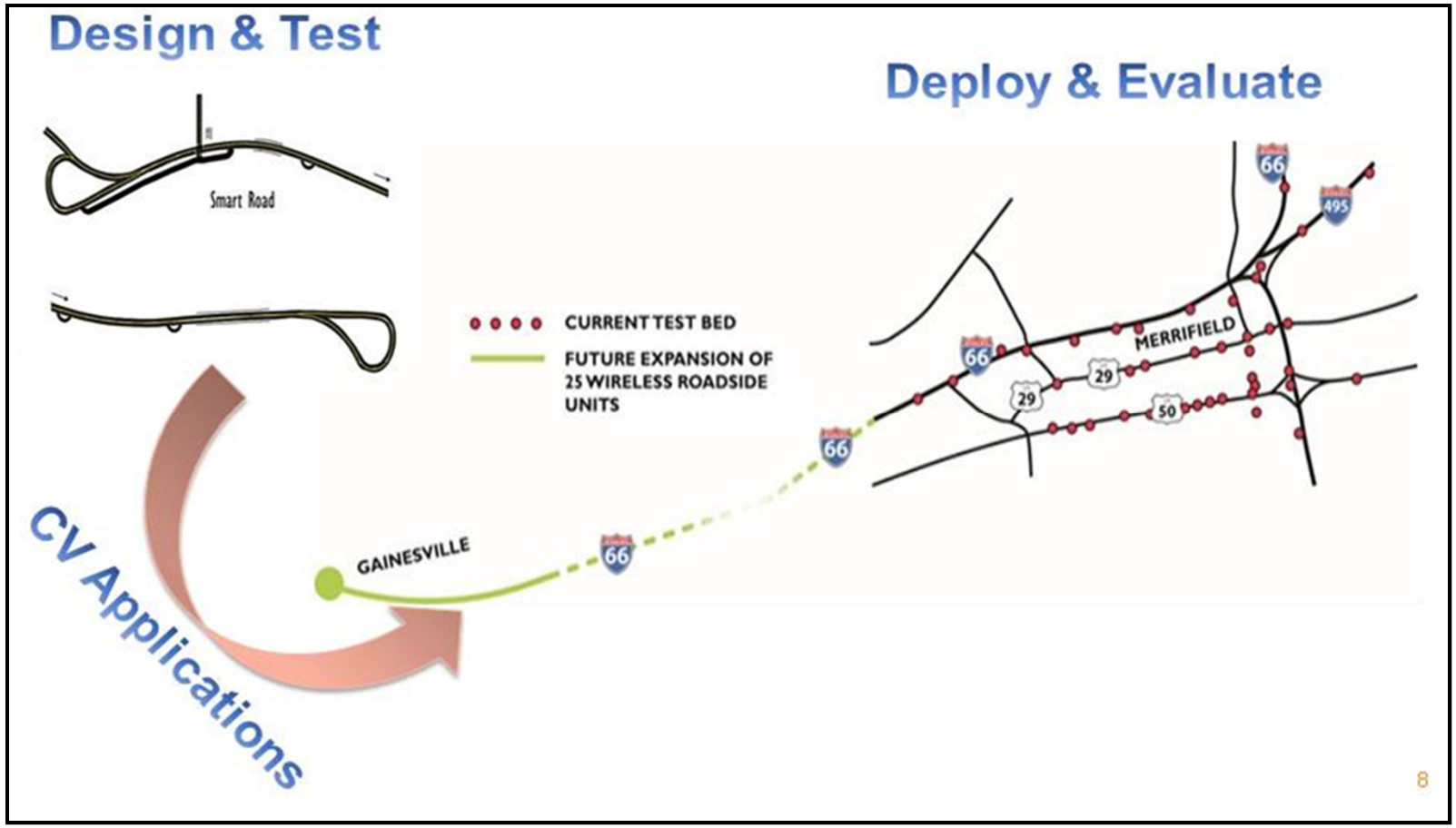
VDOT is engaged in National Dialogue

- USDOT CV Research Program
- CV Pooled Fud Study (CV PFS) Chair
- NCHRP CAV Research Program
- AASHTO Committee on TSO, CAV Working Group
- Vehicle to Infrastructure Deployment Coalition (V2I DC)
- Interstate 95 Corridor Coalition (I-95 CC)

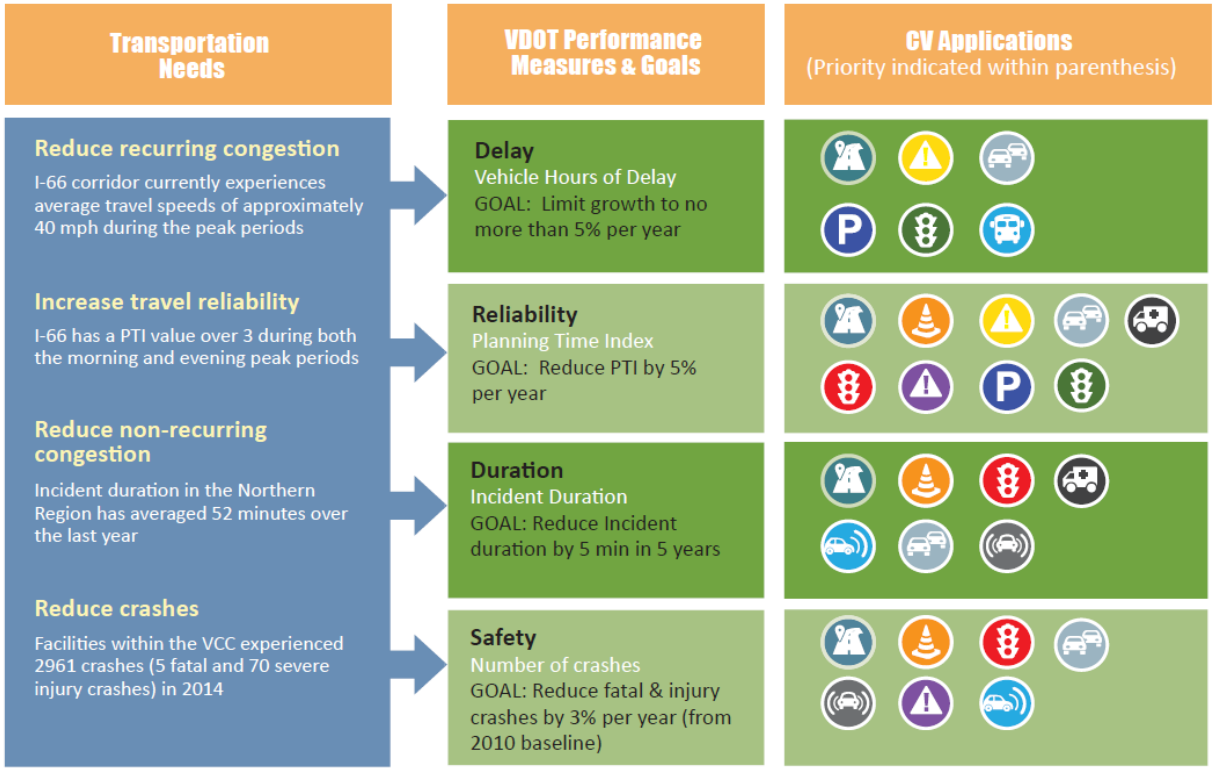
VDOT has developed an open for business and research approach

- **Virginia Connected Corridor (VCC)** partnership with Virginia Tech Transportation Institute (VTTI), UVA, Morgan State to provide an open and live environment for CAV Research, Testing, and Development.
- **Virginia Smart Road** provide ability to test CAV applications under different weather conditions.
- **Virginia Transportation Research Council (VTRC)** coordinates VDOT research with universities, VDOT staff, and business interests.
- **SmarterRoads.org** cloud data portal provides access to VDOT data for 3rd party application developers.

Virginia Connected Corridor encourages application deployment

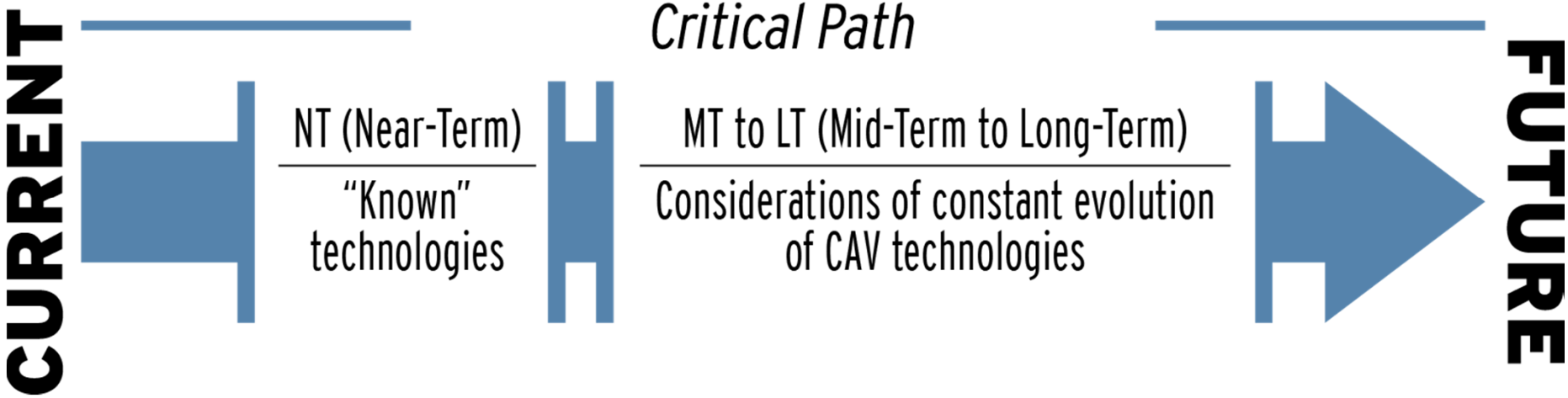


CV applications prioritized based on need



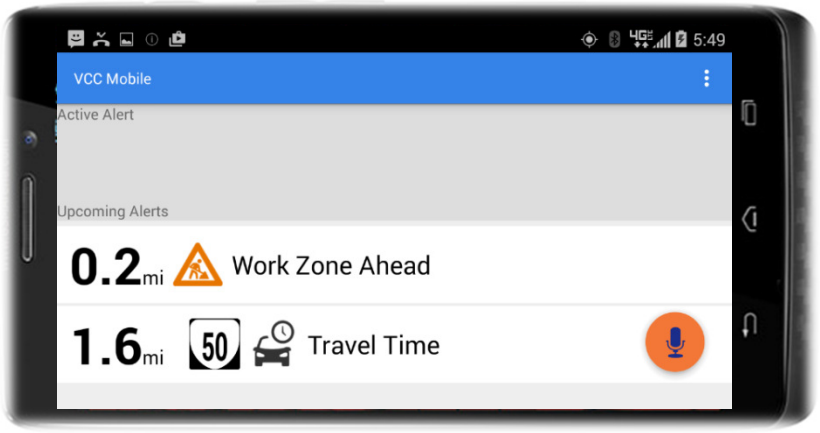
VDOT's CAV Deployment Work Program

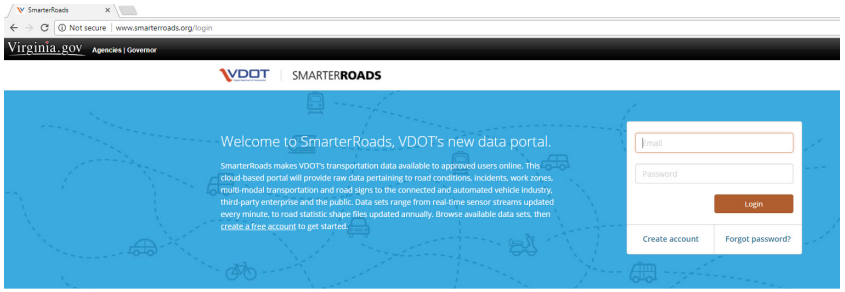
- Near-Term Actions
  - Near-Term Development of Foundational Elements
  - Improvements to Signs and Markings
- Mid- and Long-Term Actions
  - Mid- and Long-Term Implementation Plan
  - Establish Deployment Guidance for Stakeholders
  - Develop CAV Standards and Specifications

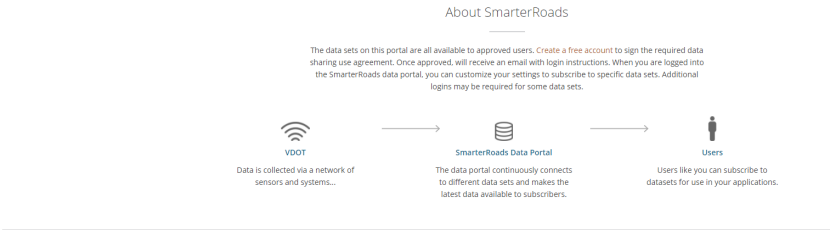


Near-Term Foundational Elements

- VCC Monitoring Application and Tools
- VCC Traffic Information Message Generator, Server and Mobile app
- SmarterRoads.org cloud data portal







Connected and Automated Vehicle Program Plan

January 10, 2018

Robert Cary, PE, LS

Chief of Innovation