

Maryland Department of Transportation

The Maryland Department of Transportation is a customer-driven leader that delivers safe, sustainable, intelligent, and exceptional transportation solutions in order to connect our customers to life's opportunities



ITS Maryland
Annual Meeting
September 2016

Driving a motor vehicle on public roadways is a serious responsibility. It is our commitment at the MDOT's Motor Vehicle Administration to promote driver safety.



Benefits of AV / CV...?

- Reduce crashes, injuries & deaths on Maryland roadways
- Increased mobility of young, aging & those with disabilities
- Synergies w/car-sharing
- Transit connections
- Efficiencies in freight
- Reduce congestion/VMT



MDOT Involvement

Policy Questions

Driver Expectation

Public Acceptance



MDOT's Involvement

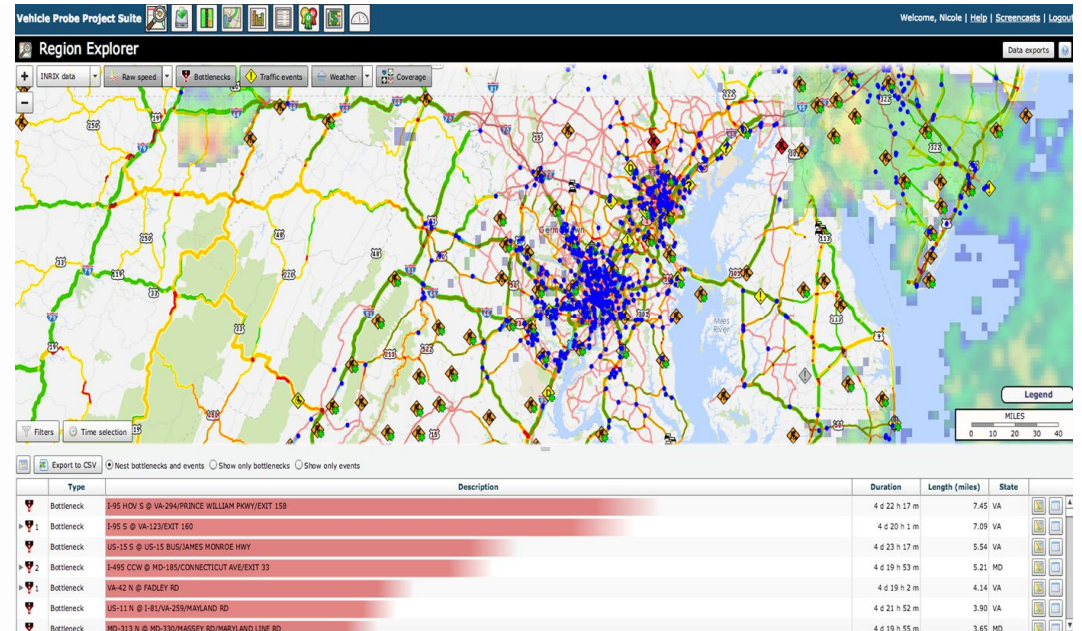
Current MDOT
CV/AV
Applications

Participation and
Representing Maryland
in National Discussions
and Workgroups

Research &
Gathering
Information

Maryland Autonomous &
Connected Vehicle
Working Group

Current MDOT CV/AV Applications



- Supporting Operations – CHART
- Planning for CV/AV: Truck Probe Data
- Evaluating Potential CV Test Bed Opportunity with USDOT/FHWA
- Research and Analysis with Federally Sponsored Programs: CV Lanes



Research & Gathering Information

- Public policy to facilitate implementation
- Implications of *AV* for motor vehicle code
- Harmonization of state goals and regulations
- Business models of public & private interface
- Federal / state / local responsibilities
- Lessons learned - other states' pilots & policies



Participation and Representing Maryland in National Discussions and Workgroups

American Association of Motor Vehicle Administrators (AAMVA)

❑ Autonomous Vehicle Info Sharing Group

- Developed analysis of current AV state laws
- Identified program areas of concern

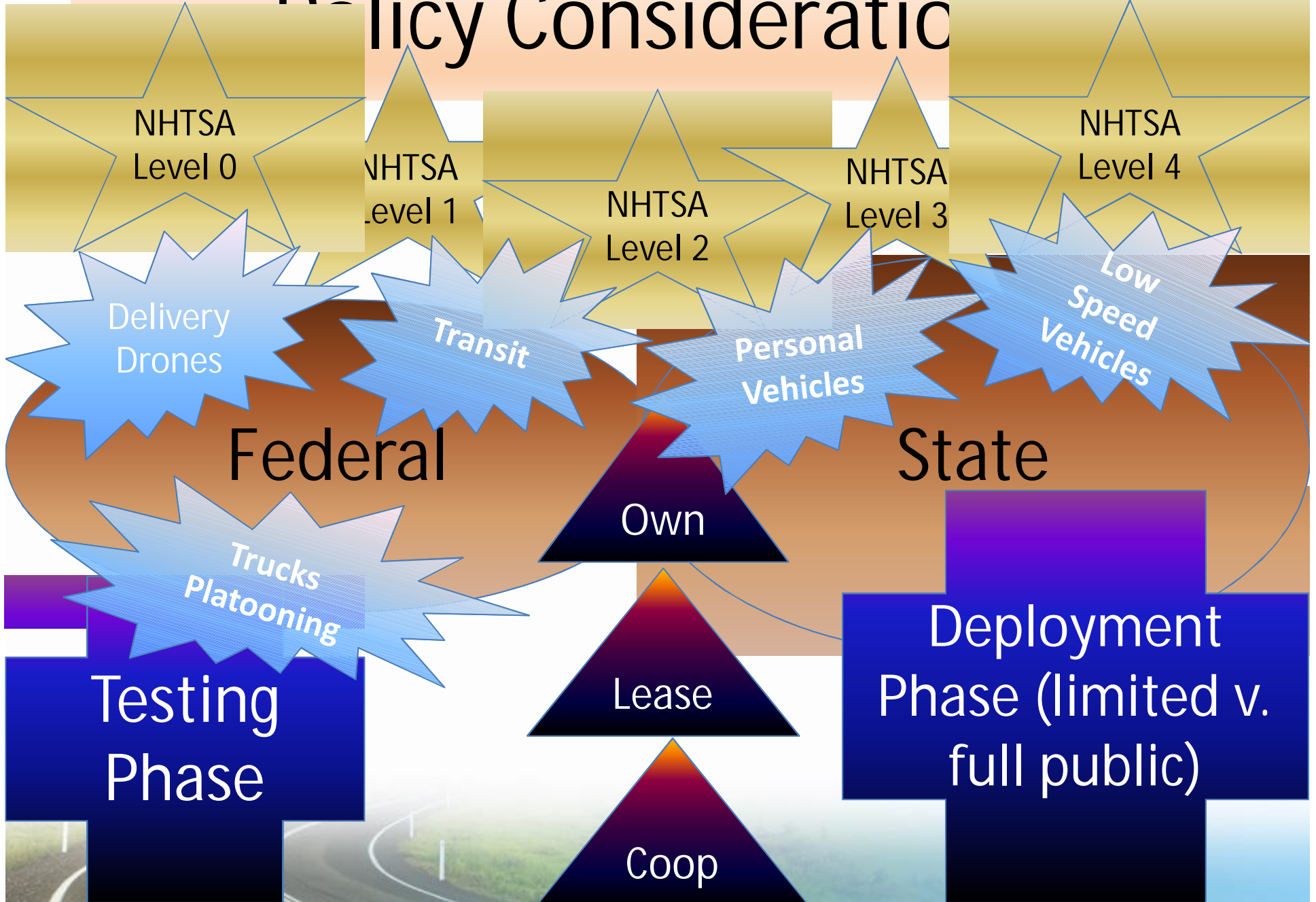
❑ Autonomous Vehicles Working Group

- Gather, organize & share info with AAMVA jurisdictions
- Developing guide – Best Practices –by Fall 2016 to assist with states adopting uniform regulations

Maryland Autonomous & Connected Vehicle Working Group

- Strong interest from Maryland General Assembly
- First Meeting in December 2015
- MDOT Secretary Pete Rahn charged this group to be central point of strategic planning of MDOT's role with AVs/CVs
- High-level group, diverse cross-section of members
- <http://www.mva.maryland.gov/safety/Maryland-AC-CV.htm>

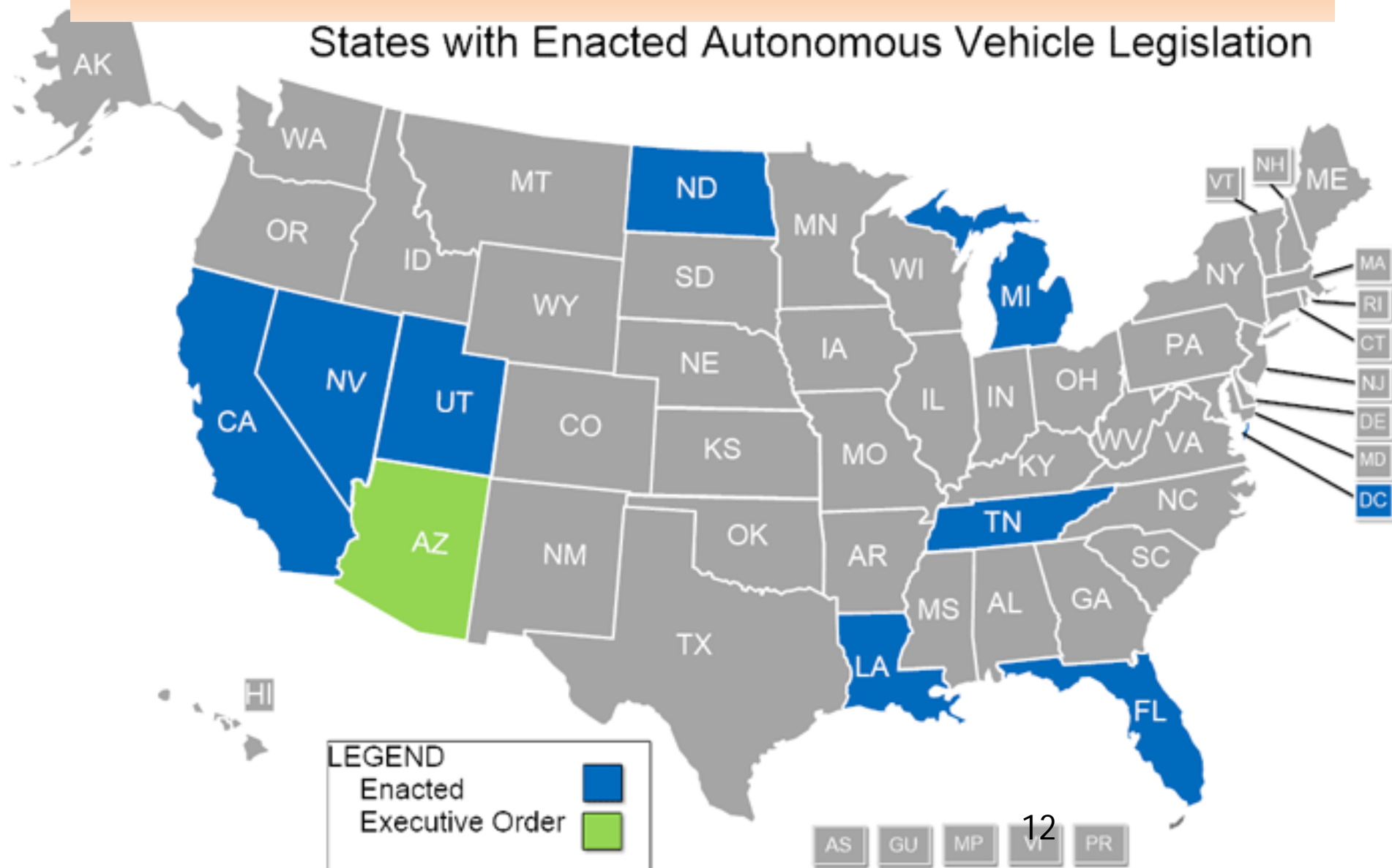
Policy Consideration



Policy Considerations

- Are they safe?
- Who is the “Driver”?
- Who is liable?
- What safety standards apply?
- Do current rules of the road laws apply?
- What infrastructure changes will be needed?
- How do we plan for changing technologies?
- Will this affect transportation investments?

States Officially Addressing AV



NHTSA Guidelines

Mark Rosekind: "Six months ago... 'when are they going to get here?' They are already here. The question is how can it be deployed safely."

Guidelines will cover several areas:

- Guidance on performance standards
- Policy guidelines for states in developing consistent regulations
- Explanation of new tools & authority NHTSA wants to use to govern self-driving vehicles

NHTSA Guidelines – Just Released

20 Sept 16

- “Part of what we’re doing with this policy is saying when the software is operating the vehicle, that is an area where we intend to regulate,” USDOT Secretary Anthony Foxx said. “When a human being is operating that vehicle, the conventional rules of state law would apply.”
- 4-part policy that will include the Model State Guidelines developed with significant input by AAMVA’s Autonomous Vehicles Working Group; 15-Point Vehicle Safety Assessment; & discussion of regulatory tools (current & modern)

Driver Expectations

- Matter of taxonomy & terminology?
- How many different driver notifications?
- When & how for driver training?



Taxonomy & Terminology?

- Tesla: Autopilot
- Volvo: Pilot Assist
- BMW: Driving Assistant Plus
- Subaru: Eyesight
- Mercedes: Drive Pilot
- Hyundai: Tech package
- Driverless Vehicles
- Auto-Pilot Vehicles
- Autonomous Vehicles
- Driver Assist Technology
- Limited Self-Driving Technology
- Automated Vehicles

Driver Alerts & Warnings

- Forward Collision
- Blind Spot
- Lane Change
- Do Not Pass
- Curve Speed



Public Acceptance

- 75% of US drivers afraid to allow an AV to drive itself with them in it (AAA, 2016)
- Most likely to trust:
 - lane departure warning/lane keep assist (52%)
 - adaptive cruise control (47%)
 - automatic emergency braking (44%), and
 - self-parking technology (36%)
- 75%+ drivers age 50+ -- and plan to purchase new car in next two years – intend to seek out advanced safety technology. (The Hartford & MIT AgeLab, 2016)

Google Maps: US Highway 27A Near Williston, Florida



Next Steps



- Position Maryland to be responsive to emerging technology
- Prepare for recommendations from Federal Agencies
- Identify future economic development opportunities

Nanette M. Schieke
Chief, Driver Safety Division
MD Dept of Transportation
/ Motor Vehicle Administration
nschieke@mdot.state.md.us

