

# MARYLAND CONNECTED & AUTOMATED VEHICLE WORKING GROUP

Aug 10, 2021

Hybrid Virtual/In-Person Meeting

## Introductory Remarks



# WORKING GROUP LEADERSHIP

---

Chrissy Nizer  
Administrator  
MDOT MVA



Jim Ports  
Executive  
Director  
MDTA

## Introductory Comments:

- Outreach & Education
- Collaboration on CAV Testing, Research, & Implementation
- Maryland Legislation Pertinent to CAV
- Strategic Framework - "North Star"

# Important Links:

- Does anyone know why May 31<sup>st</sup> is National Autonomous Vehicles Day? If your organization celebrates this observance and/or you are interested in engaging on this in 2022, send us a quick email on this at [CAVMaryland@mdot.maryland.gov](mailto:CAVMaryland@mdot.maryland.gov)
- Any and all organizations interested in legislative implementation issues, are welcomed to get in touch with us to help in the review and dialogue of the processes. Simply send an email to [CAVMaryland@mdot.maryland.gov](mailto:CAVMaryland@mdot.maryland.gov) to let us know your interest; mention either “platooning” or “PDD” approval process.
- The *Toolkit* developed by MDOT and Maryland Department of Planning is now available on Maryland’s CAV webpage. Look under [Outreach for Local Jurisdictions, June 2021](https://mdot.maryland.gov/MarylandCAV) at [mdot.maryland.gov/MarylandCAV](https://mdot.maryland.gov/MarylandCAV)



# MARYLAND CONNECTED & AUTOMATED VEHICLES STRATEGIC FRAMEWORK UPDATES

Carole Delion, P.E.

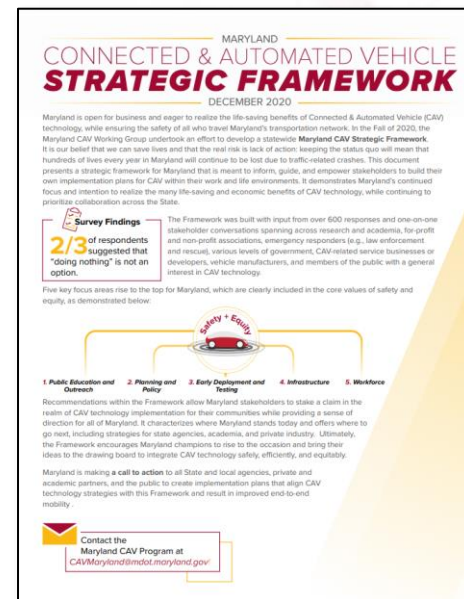
MDOT SHA

[cdelion@mdot.Maryland.gov](mailto:cdelion@mdot.Maryland.gov)

# FRAMEWORK LOCATION

Full report, plus 1-Page Executive Summary available at:

<https://mdot.maryland.gov/MarylandCAV>





## PUBLIC EDUCATION AND OUTREACH

- Increase transparency of educational CAV material and ongoing efforts.
- Ensure diverse audience when communicating initiatives.
- Leverage existing outreach avenues.



## PLANNING AND POLICY

- Facilitate opportunities through the Maryland CAV Working Group.
- Establish clear goals and metrics for CAV in Maryland.
- Identify and address barriers to CAV.
- Incorporate CAV into planning and policy documents.
- Establish policies on cross-collaboration and open data sharing.
- Anonymize CAV data and safeguard from mishandling.



## EARLY DEPLOYMENT AND TESTING

- Broaden use cases for early deployment and pilot projects.
- Gather public perception and adjust pilots.
- Grow the list of locations for CAV testing.
- Prioritize freight-focused CAV strategies in the short term.
- Leverage deep bench of academic excellence.
- Embrace new partnerships for non-traditional research.

## INFRASTRUCTURE

- Establish baseline operation of technology infrastructure.
- Establish acceptable equipment downtimes.
- Remain engaged with national guidelines and integrate or create State-specific specifications.
- Dedicate resources and create partnerships to build out the communications infrastructure.
- Asset-management and software configuration management.

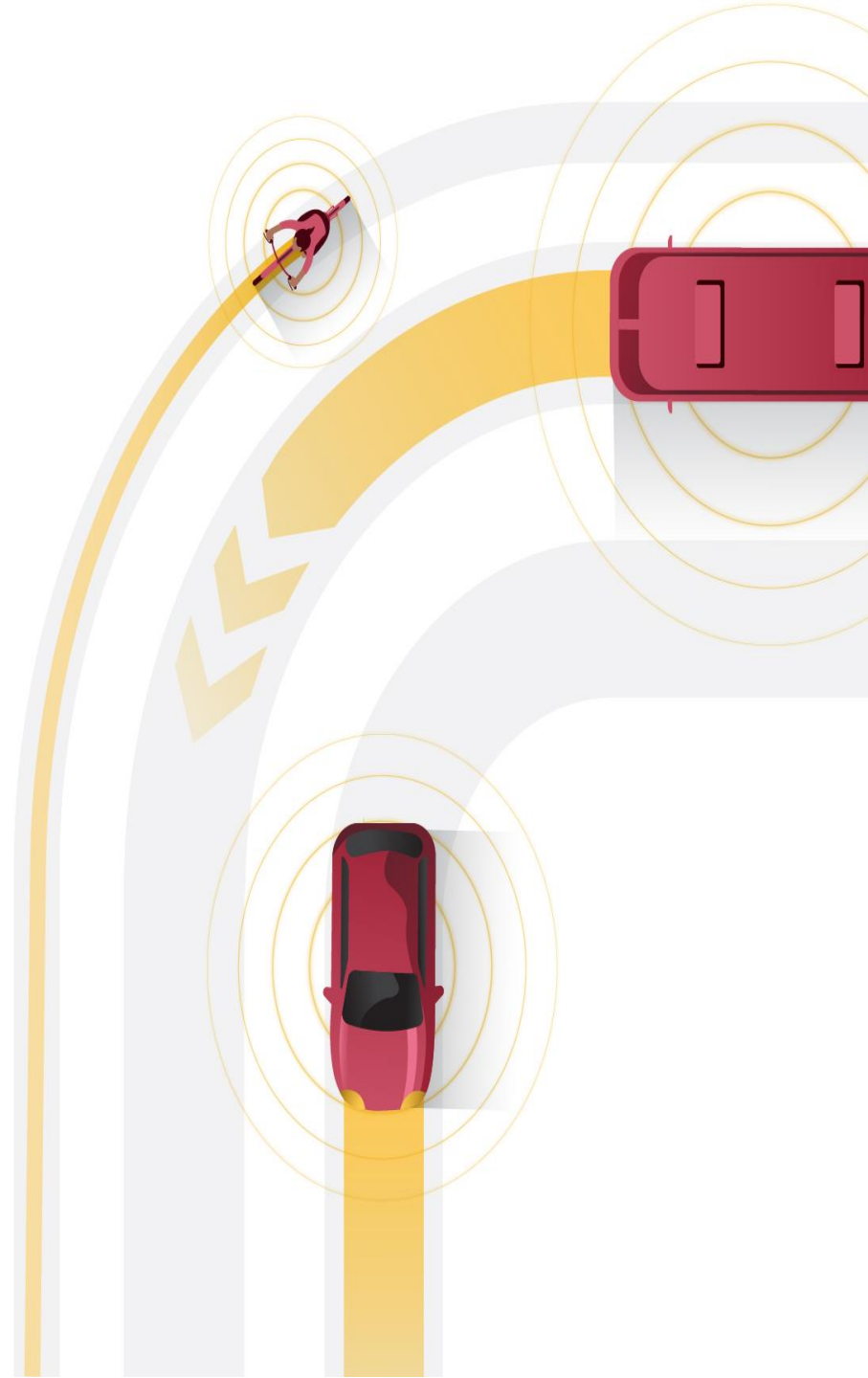


## WORKFORCE

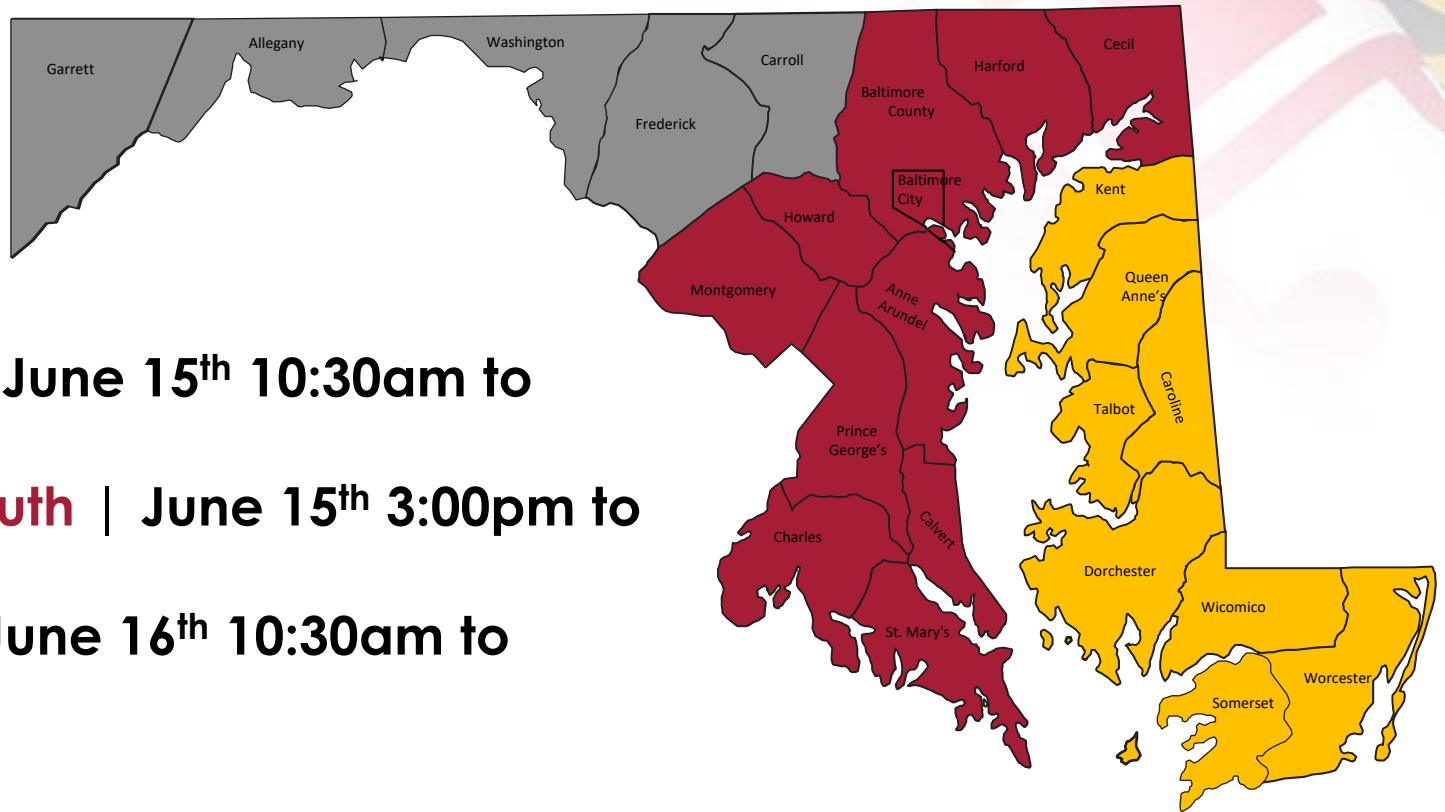
- Promote and enhance existing workforce.
- Address recruitment & retention gaps at the local level.
- Establish expectations for future staffing.
- Field training and traditional trade jobs should be encouraged.



# **PUBLIC EDUCATION & OUTREACH**



# JUNE OUTREACH WEBINARS



- **Western** | **June 15<sup>th</sup> 10:30am to 12:00pm**
- **North & South** | **June 15<sup>th</sup> 3:00pm to 4:30pm**
- **Eastern** | **June 16<sup>th</sup> 10:30am to 12:00pm**

**MDOT** MARYLAND DEPARTMENT OF TRANSPORTATION

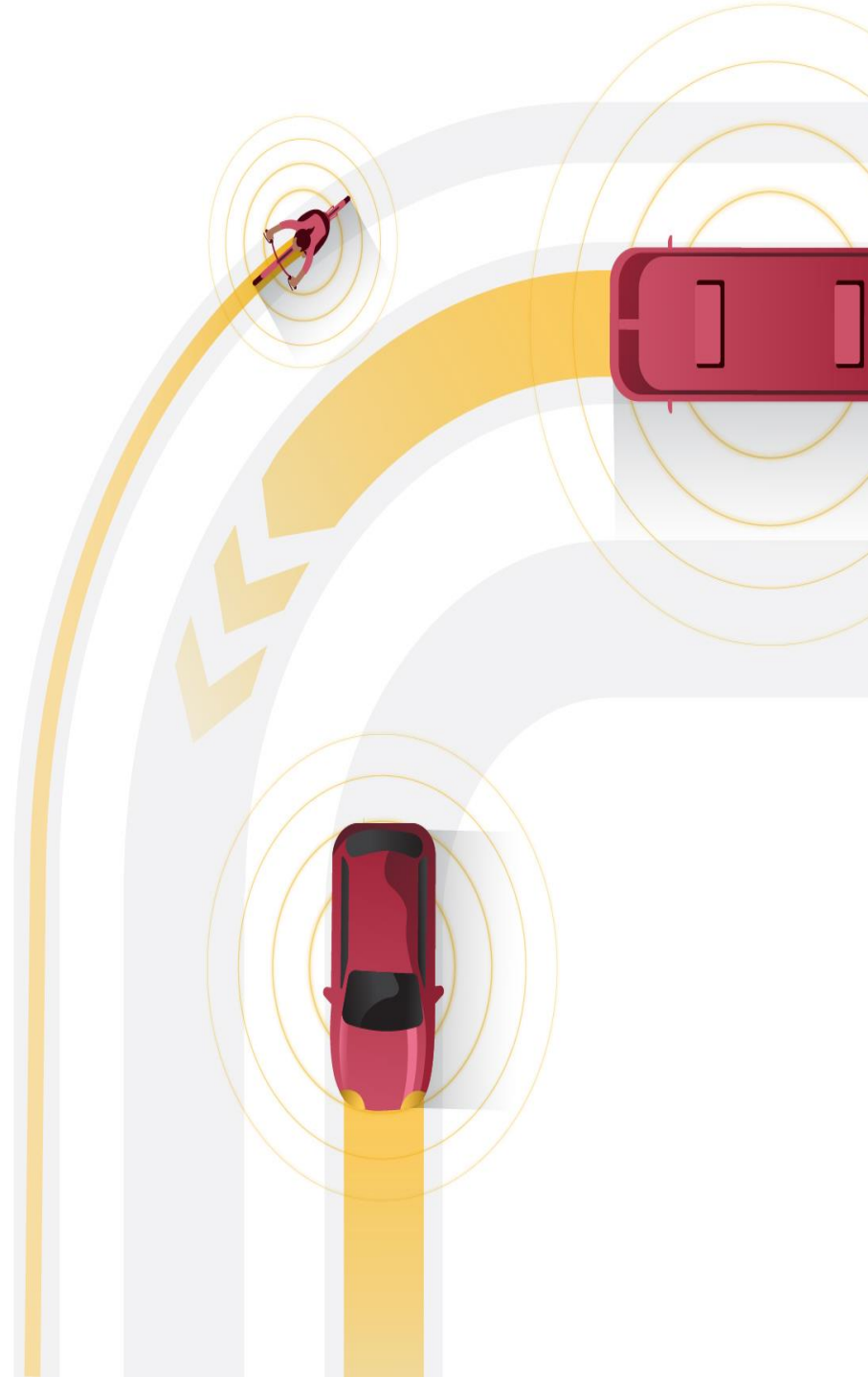




# OTHER INITIATIVES SINCE APRIL 2021

- Successful demonstration and kick-starting of the Westminster Autonomous Corridor Event in May
- National Association of Counties annual conference successfully held at National Harbor MD with demonstrations of the Olli autonomous shuttle

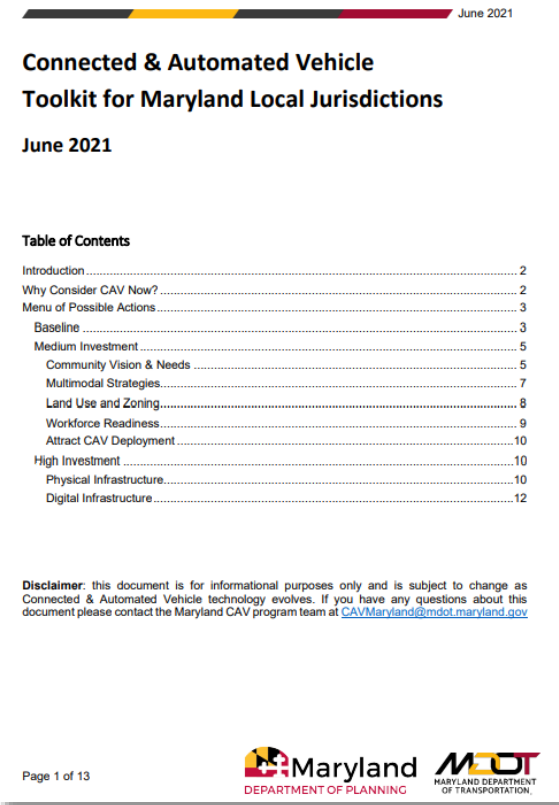
# PLANNING & POLICY



# LOCAL JURISDICTIONS CAV 'TOOLKIT'

- Collaboration between Maryland Dept. of Planning and Maryland DOT
- Aimed at local jurisdictions
- Empowers local jurisdictions by giving them a fuller “picture” about CAV impacts so they can make informed decisions
- Set of actions are broken out into baseline, medium investment and high investment

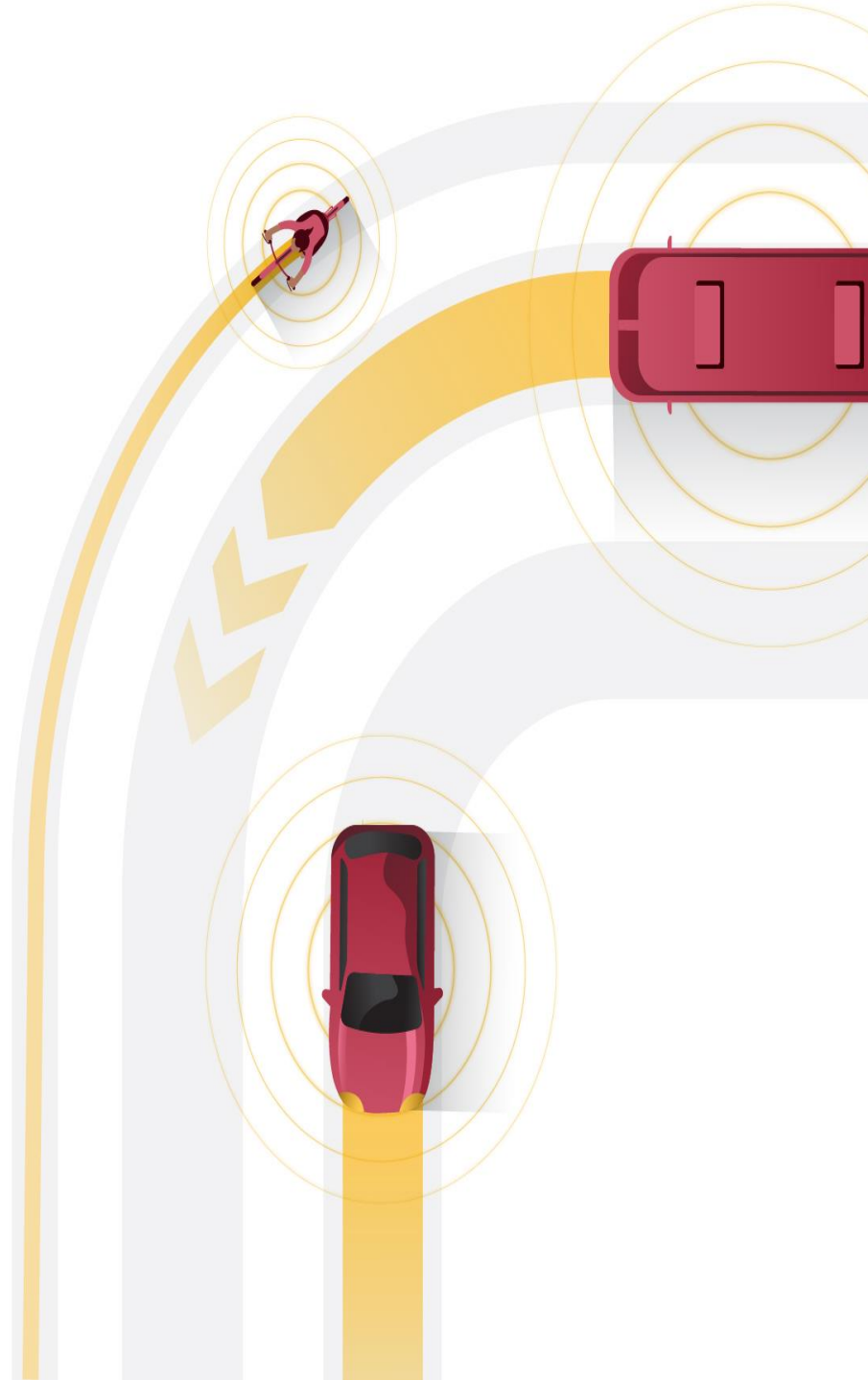
All resources available at [mdot.maryland.gov/MarylandCAV](https://mdot.maryland.gov/MarylandCAV)  
([link to document](#))



# OTHER INITIATIVES SINCE APRIL 2021

- Maryland MPOs will be starting their long range plans and are considering how to incorporate CAV (more on that today!)

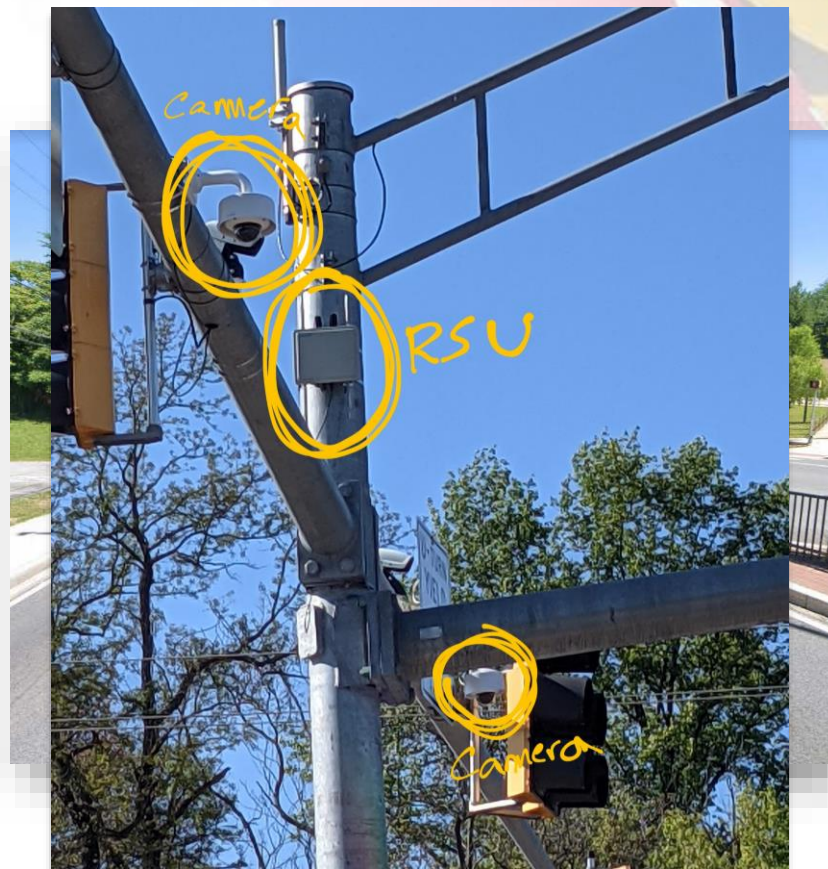
# INFRASTRUCTURE





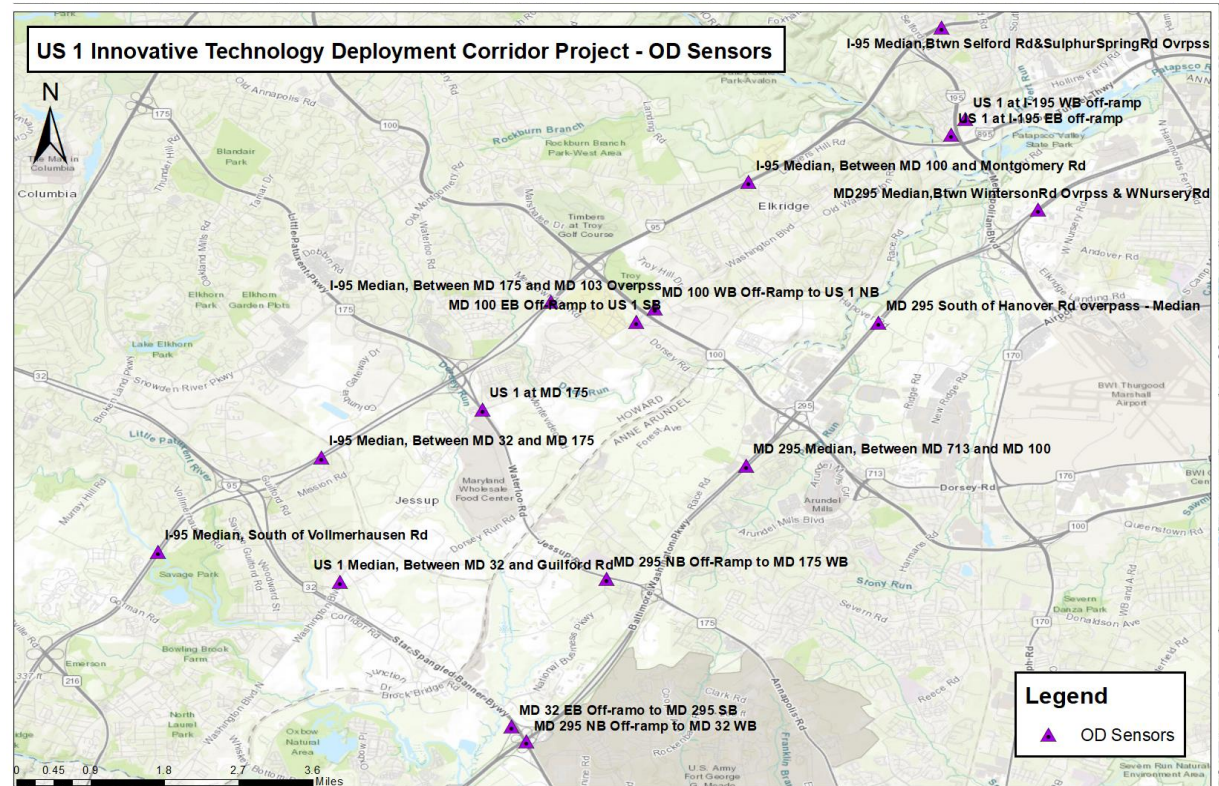
# MD 214 PEDESTRIAN V2I DEPLOYMENT

- Pedestrian I2V Safety Deployment
- Sensor at crosswalk will detect pedestrians and transmit data over CV spectrum / RSU
- Testing on-going with OBU in vehicle
- Extending opportunities to local jurisdiction, federal partners, and OEMs to come “test” their ability to improve vulnerable roadway warnings to drivers

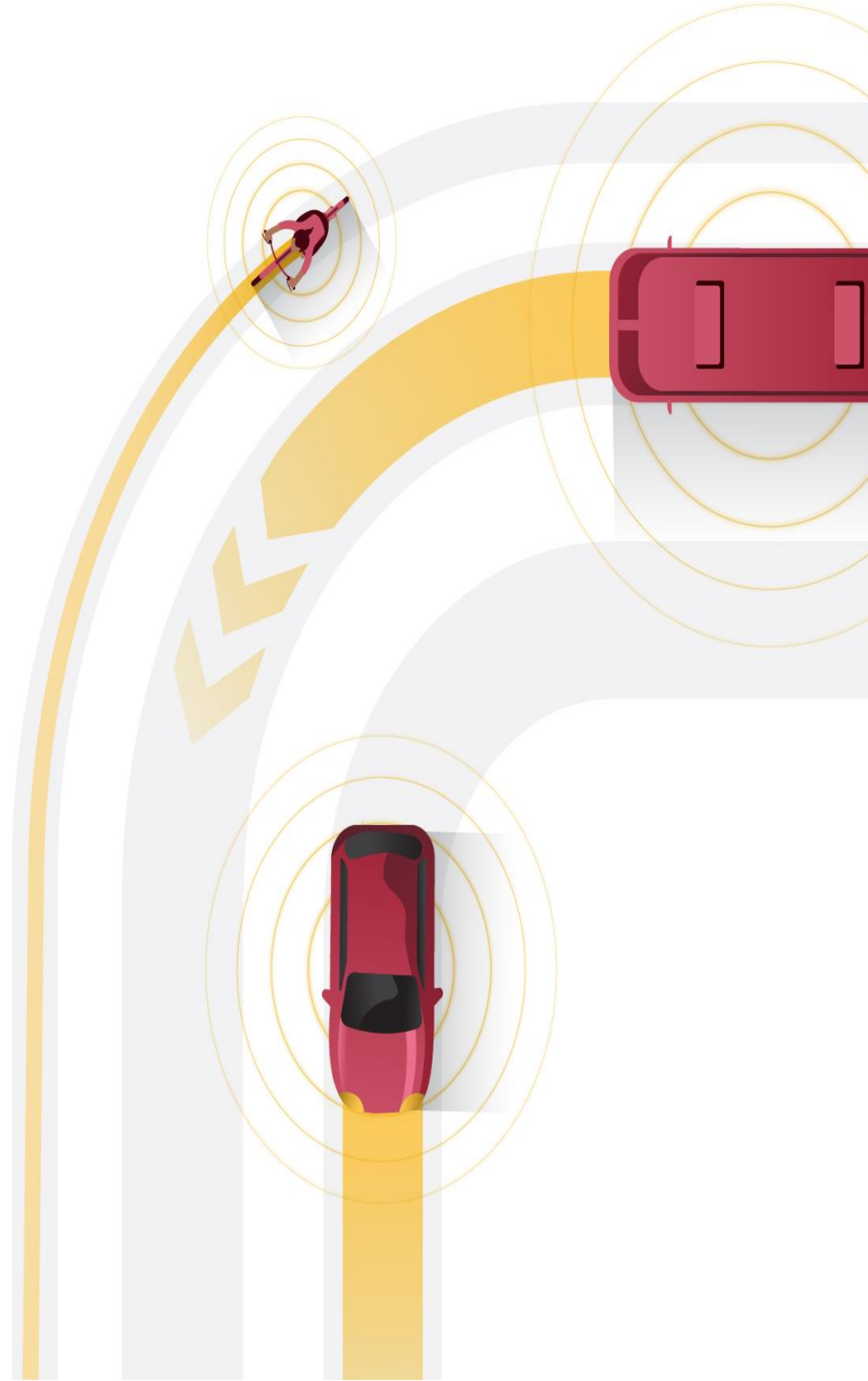


# US 1 SIGNAL PHASE AND TIMING & MESSAGING

- Signal Phasing and Timing Challenge
- Deploying RSU at 20 intersections on US 1
- Additional 14 locations with TIM capabilities
- Testbed for CV technology integration



# EARLY DEPLOYMENT & TESTING -- WORKFORCE







### PUBLIC EDUCATION AND OUTREACH

- Increase transparency of educational CAV material and ongoing efforts.
- Ensure diverse audience when communicating initiatives.
- Leverage existing outreach avenues.



### PLANNING AND POLICY

- Facilitate opportunities through the Maryland CAV Working Group.
- Establish clear goals and metrics for CAV in Maryland.
- Identify and address barriers to CAV.
- Incorporate CAV into planning and policy documents.
- Establish policies on cross-collaboration and open data sharing.
- Anonymize CAV data and safeguard from mishandling.

### EARLY DEPLOYMENT AND TESTING

- Broaden use cases for early deployment and pilot projects.
- Gather public perception and adjust pilots.
- Grow the list of locations for CAV testing.
- Prioritize freight-focused CAV strategies in the short term.
- Leverage deep bench of academic excellence.
- Embrace new partnerships for non-traditional research.



### INFRASTRUCTURE

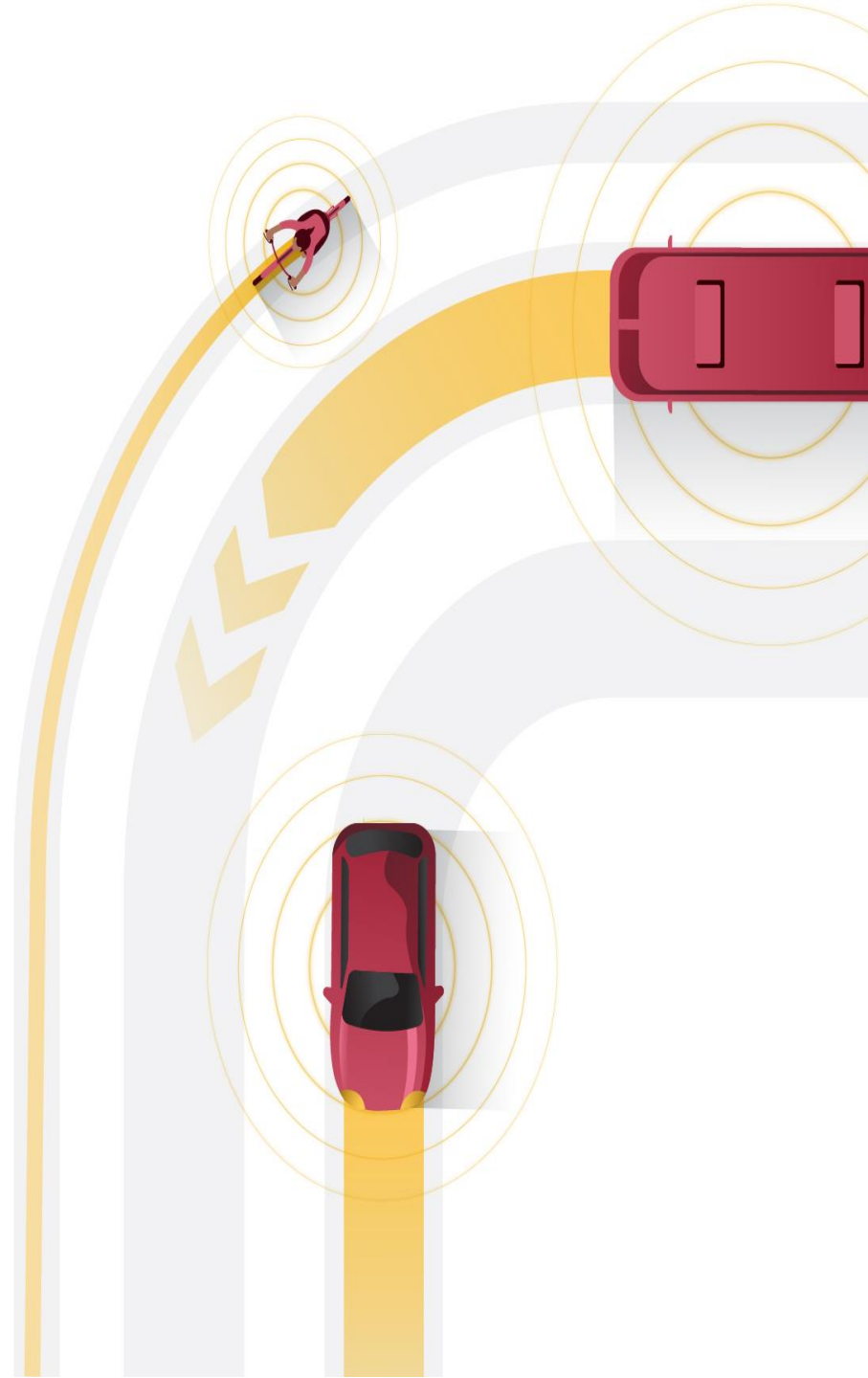
- infrastructure.
- Establish acceptable equipment downtimes.
  - Remain engaged with national guidelines and integrate or create State-specific specifications.
  - Dedicate resources and create partnerships to build out the communications infrastructure.
  - Asset-management and software configuration management.

### WORKFORCE

- Promote and enhance existing workforce.
- Address recruitment & retention gaps at the local level.
- Establish expectations for future staffing.
- Field training and traditional trade jobs should be encouraged.



# SUBGROUPS



# STATE AGENCY COORDINATION TEAM

- Held subgroup meeting on July 14
  - Discussed digital infrastructure needs across Maryland to support a vision of a “Maryland Connected Vehicle Grid”
  - Highlighted the recent AUVSI conference session Maryland participated in
  - Promoted the recent Dept. of Commerce’s unmanned marketing material
  - Maryland Insurance Administration is tracking insurance discussions, including those with the National Association of Insurance Commissioners
  - Provided updates on the ongoing Maryland Law Review
  - Next subgroup meeting on September 28
- State Agency Coordination team coordinator: Nanette Schieke at [nschieke@mdot.maryland.gov](mailto:nschieke@mdot.maryland.gov)



# EMERGENCY RESPONDER SUBGROUP

- Recruited additional public safety participants to support the SubGroup
  - Added an activity item to provide a periodic MD CAV items of interest to Emergency Responder newsletter.
  - Responded to HAV permitting requests by identifying appropriate emergency responder contacts with jurisdiction and providing commentary on proposals.
  - Responded to research requests for emergency responder input on items such as Work Zone and Incident scenarios.
  - We are continuing to identify and respond to opportunities to support CAV advancement by providing emergency responder input into research, demonstration and testing activities.
- Emergency Responder SubGroup coordinator: Roxane Mukai at [rmukai@mdta.state.md.us](mailto:rmukai@mdta.state.md.us)

# POLICY SUBGROUP

- Held re-start of the subgroup on June 23
  - Requested and received feedback from stakeholders on:
    - the new PDD law process language
    - Addressing the question of whether or not to pursue testing of AVs without a safety operator
  - Next subgroup meeting on September 29
  - Confirmed Committee Chair: Cara LaPointe, PhD. Cara is the Co-Director of the Johns Hopkins Institute for Assured Autonomy, Assured Intelligent Systems Program Manager at the Johns Hopkins Applied Physics Laboratory.
- Policy SubGroup coordinator: Michele Gross at [mgross10@mdot.maryland.gov](mailto:mgross10@mdot.maryland.gov)

# FREIGHT SUBGROUP

- Held subgroup meeting on June 10
    - Presentations from USDOT on ADAS and ADS early deployment assessments and from IIHS on ADAS elements and their impacts on crash types and speeds
  - Supported input to the truck platooning and PDD process
  - Added new stakeholder (Locomotion)
  - Surveyed subgroup to gauge future priorities
  - Next subgroup meeting on October 21
- Freight SubGroup coordinator: Parto Mazdeyasni at [pmazdeyasni@marylandports.com](mailto:pmazdeyasni@marylandports.com)

# TECHNICAL SUBGROUP

- Held re-start of the subgroup on June 14
- Requested and received feedback from stakeholders on:
  - How the technical subgroup should support the broader Framework recommendations (e.g., goals and mission)
  - Identification of stakeholders to add
- Highlighted available technical resources, including how to submit license requests to the FCC, link access to the statewide security credentialing management system for cybersecurity in connected vehicle applications in Maryland
- Next subgroup meeting on August 23

➤ Technical SubGroup coordinator: Carole Delion at [cdelion@mdot.Maryland.gov](mailto:cdelion@mdot.Maryland.gov)