

# Maryland *is open for Business* **Connected and Automated Vehicles**

## MARYLAND WORKING TOWARD THE FUTURE OF CONNECTED AND AUTOMATED VEHICLES

Maryland's Vision for Connected and Automated Vehicles (CAV) is to uphold and enhance a **Safe, Efficient, and Equitable** transportation future by delivering collaborative and leading-edge CAV solutions. Maryland is open for business and eager to realize the life-saving and economic benefits of CAV technology, while ensuring safety for all. We are embracing CAV technology and innovation through continuing collaboration with partners interested in researching, testing, and implementing CAVs in Maryland. The Maryland Department of Transportation (MDOT) recognizes the numerous safety and mobility benefits that this technology represents and may offer to the citizens of our State. MDOT welcomes the opportunity to collaborate with companies that are interested in researching, testing, and supporting CAVs in Maryland.

To prepare for this changing transportation landscape, MDOT and its numerous partners are working together to communicate and coordinate as this technology moves forward. In 2015, the Maryland Transportation Secretary established a Statewide CAV Working Group as the central

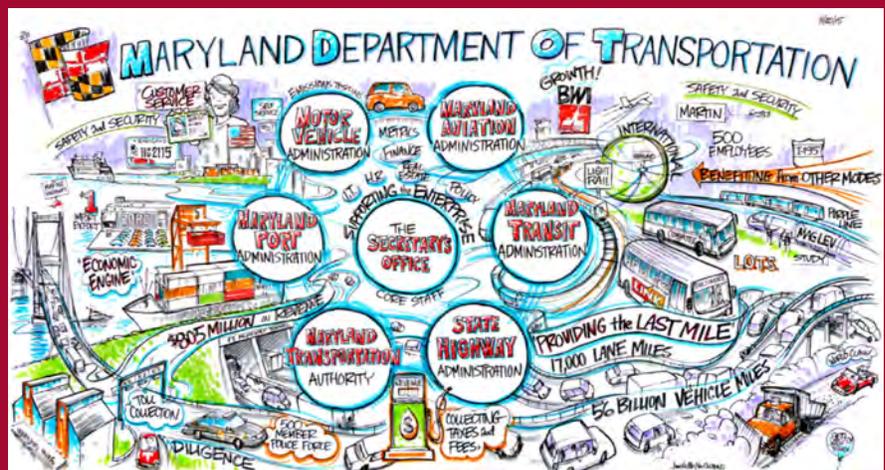
point of coordination for the development and deployment of emerging CAV technologies in Maryland. The Working Group has a diverse cross section of members, including law enforcement, traffic safety, planners, engineers, economic development organizations, regional, state, and local government agencies, policy makers, trucking industry representatives, private industry stakeholders, educational institutions, and others. The group reviews the latest research; federal and State laws, policies, and programs; and assists in coordinating the agencies, organizations, and businesses that will set the course for the future of CAVs in Maryland.

## START WORKING WITH MDOT ON CAV TECHNOLOGY

MDOT has a one-stop shop point of entry for all entities interested in CAV in Maryland. The process facilitates dialogue with potential partner companies – each with their unique circumstances involving CAVs – to better understand the needs of the entity and to help ensure safety is prioritized. The Expression of Interest form at [cav.mdot.maryland.gov](http://cav.mdot.maryland.gov) is the starting point that opens the door to all of the relevant public-sector agencies that need to be engaged.

## WHAT IS MDOT?

The Maryland Department of Transportation (MDOT) is an organization comprised of six business units and one Authority. They are: The Secretary's Office, State Highway Administration, Maryland Transit Administration, Motor Vehicle Administration, Maryland Port Administration, Maryland Aviation Administration and the Maryland Transportation Authority. This multi-modal organization provides the state's leadership with the ability to develop a coordinated and balanced approach to transportation.



# WHY MARYLAND?



## IDEAL LOCATION



- ▶ Maryland is the ideal place to engage in the research, development and testing for CAV technology. In fact, CAVs and CAV components are already being developed, tested, and evaluated in Maryland. Work on CAVs is underway in Maryland-based laboratories, on closed-roadway systems and sites, and in “real world” test locations. MDOT offers the ability to leverage established partnerships with other public entities and with private and academic partners to advance this technology. Maryland has a diverse selection of shovel ready real estate and the resources to work with any company to locate available infrastructure that meets even the most unique testing requirements. **Preview potential sites and locations of active road-side technology under the *Collaboration with Industry* tab at [cav.mdot.maryland.gov](http://cav.mdot.maryland.gov)** Complete the Expression of Interest to get started with a request to test.
- ▶ Maryland is a major road transportation hub for the eastern region of the country, and provides other transportation capabilities to the globe through rail, air, and sea transportation. From the beaches of the Eastern Shore to the mountains of Garrett County, Maryland’s landscape is a microcosm of the United States and offers urban, suburban, and rural areas to conduct real-world tests for CAVs, as well as both freight and passenger intermodal scenarios. Maryland offers opportunities for truck platoon testing, port and intermodal connections, passenger intermodal, and a variety of transit and mobility options.

CAV applications, enhanced high-bandwidth communication connectivity, Dedicated Short Range Communications and arterial roadway CCTV, dynamic message signs, and roadway weather information systems to support incident and traffic management.

- ▶ Maryland is a state where technology development and innovation are flourishing. Maryland is home to 14 of America’s top 25 aerospace companies, as well as 70 of the top 100 defense contractors. Additionally, Maryland is a hotbed of software services, electronics, telecommunications firms, and a critical mass of cybersecurity organizations, many of which are already engaged in automation development. Maryland’s central location on the East Coast also provides great business opportunities for companies.
- ▶ MDOT is a leader in data analytics and visualization and is experimenting with data analysis and management through academic, private-sector, and military partnerships, testing the interface of CAV with our infrastructure, and analyzing the potential benefits of CAV on the way we operate and manage our transportation assets. MDOT has real-time data and operational arrangements in place with the University of Maryland, Johns Hopkins Applied Physics Laboratory, and Morgan State University, providing unparalleled academic support for testing needs.

## LEADER IN INNOVATION



- ▶ MDOT is well positioned to enable testing and may soon see CAV shuttles carrying passengers around airports, business parks, campus settings, shopping areas, or from parking locations to attractions. For example, Baltimore/ Washington International (BWI) Marshall Airport, operated and managed by MDOT’s Maryland Aviation Administration, is considering how CAVs can be used to connect its parking and ground transportation programs, offering an enhanced traveler experience.
- ▶ MDOT business units are rapidly expanding their telecommunications and intelligent transportation systems (ITS) infrastructure, and piloting technological upgrades for vehicle-to-roadside connectivity. Many of our facilities are already equipped with sensors and communication devices and additional upgrades and deployments are in progress. MDOT State Highway Administration continues to pursue a project along US 1 that includes a smart signal system, with adaptive operations, controllers to support

## DIVERSE AND COMMITTED TEAM OF STAKEHOLDERS



- ▶ Maryland is home to the U.S. Army Aberdeen Test Center, where they currently test truck platooning technologies for military applications and assist the Federal Motor Carrier Safety Administration (FMCSA) and the Federal Highway Administration (FHWA) with testing of vehicle to vehicle (V2V) and vehicle to infrastructure (V2I) communications.
- ▶ Maryland educational institutions are deeply invested with the development and testing of CAV, including the technological asset of the University of Maryland Center for Advanced Transportation Technology (CATT). In total, our State features 57 accredited two- and four- year colleges and universities, plus 16 community colleges that offer continuing education and workforce training. These institutions work closely with industry and government entities to improve transportation systems. We also have more than 30 business incubators, including the Maryland International Incubator, which helps international, technology-based, companies successfully enter the U.S. marketplace.

**Maryland is Open for Business.** To learn more, please visit [cav.mdot.maryland.gov](http://cav.mdot.maryland.gov)

