

# Maryland

## Connected & Automated Vehicle (CAV) Technology

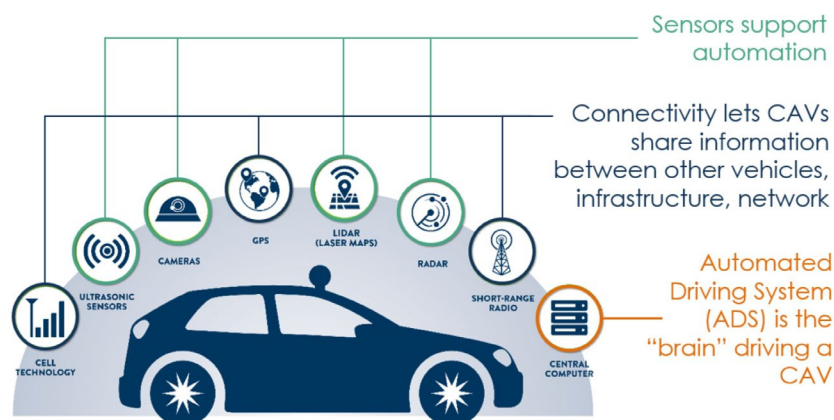
In transportation, we have seen a steady increase in how technological advances change lives—commuting, entertainment, and moving goods are all affected as the industry invents new ways for our vehicles to see, analyze, and react to our transportation ecosystem. Developing vehicle technology that can assist drivers with driving tasks and help cars “talk” to the roadside, and eventually drive themselves, presents challenges that Maryland must address.

### WHAT IS CAV TECHNOLOGY?

Connected and Automated Vehicles (CAV) could change all aspects of mobility—from the way we commute to how we plan and develop infrastructure for future cities and towns.

CAV includes all levels of automotive technology. Lower-level driver assist technologies with sensors and cameras to identify possible risks are on many vehicles today. These features make driving safer, help save lives, and prevent injuries. When used properly, they prevent 40% of crashes!

CAV also includes higher levels of automation that are being tested in many areas to gain experience and anticipate future needs. Pilot programs are an excellent opportunity to build experience with next-generation technology, new partners, and future operational scenarios. Careful real-world testing and early deployments are important to improving CAV performance and allowing them to reach their full performance potential.



Credit: MnDOT

### Potential Benefits of CAV



**Safety:** reduced traffic crashes and deaths with 360-degree vision and CV/AV redundancies



**Efficiencies & Convenience:** connectivity & consistency for reduced congestion & increased lane capacity; less time in traffic means more time for work and family



**Clean Air:** lower carbon emissions with reduced congestion, fuel economies



**Mobility:** increased options & last-mile solutions for seniors, people with disabilities and under-served communities; supplement public transit



**Improved Land Use:** efficiencies for curb space and reduction in parking space



**Cost savings for government:** costs of congestion and crashes



**Cost savings for consumers:** reduced insurance costs, reduced running costs, and parking



## VISION

Maryland's Vision for Connected and Automated Vehicles (CAV) is to uphold and enhance a safe, equitable, convenient, and connected multimodal transportation system for all by delivering collaborative and leading-edge CAV solutions. Maryland is 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.

## MARYLAND'S CAV WORKING GROUP

To prepare for this changing transportation landscape, Maryland Department of Transportation (MDOT) and its numerous partners are working together to communicate and coordinate as this technology moves forward. MDOT supports the Maryland CAV Working Group as a central point of coordination and collaboration with industry, research and academic institutions, and all levels and sectors of government. MDOT acts as hub of wheel for CAV with structure to support intermodal communication, planning, and operation. But the CAV program is intentionally a Maryland program and representative of the whole State. The Working Group includes an inclusive and diverse cross section of members, that is actively engaged, constantly learning and sharing, integrating CAV into planning & policy discussions, and considering practical applications for Maryland needs. This inclusive collaboration provides an opportunity to identify opportunities and be responsive to this emerging technology.

## OPPORTUNITIES WITH INDUSTRY

Maryland welcomes the opportunity to collaborate with companies that are interested in researching, testing, and implementing CAVs in Maryland with a one-stop point of entry for all interested entities. 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. This process opens the door to companies to encourage local development of CAV while helping to ensure safe use of CAV to benefit all users of Maryland's transportation network. The Expression of Interest form at [cav.mdot.maryland.gov](http://cav.mdot.maryland.gov) is the starting point to access all relevant public-sector agencies that need to be engaged and provide contacts to CAV partners for potential opportunities.

### ***Interested in grant funding?***

Please see the [Federal Highway Administration's Competitive Grant Funding Matrix](#) for more information on grant programs with CAV eligible activities.

### ***Interested in collaborating?***

Maryland encourages [collaboration with industry](#) through transparent and simplified processes for [testing](#) highly automated vehicles, operating truck [platoons](#), and operating [personal delivery devices](#). Also see [prime locations](#) for testing AV & CV technology. Start by completing an [expression of interest](#).

### ***Maryland Business Advantages***

Maryland offers a wealth of innovation-boosting resources, a highly educated population, and a diverse and open-minded community, where everyone is welcome and small, minority, and disadvantaged businesses are supported. Check out Maryland [business advantages](#), [business connections](#), and the [Minority Business Enterprise Program](#) for more information on how Maryland is creating a state that is more economically competitive and inclusive.

For more information, please visit [cav.mdot.maryland.gov](http://cav.mdot.maryland.gov)