NOCoE Peer Exchange

Planet M and Michigan's role in the transformation

THE NEWS:

Several milestone events have occurred the past two years, solidifying a commitment to developing automated and connected vehicles in Michigan. A number of research and testing facilities have opened with broad collaboration from government, academia and private industry. These include:

- Mcity, a unique automated vehicle testing center, designed to simulate driving in an urban environment, opened at the University of Michigan in 2015. MDOT provided technical and financial support. ($3 million)
- The American Center for Mobility (ACM) is the resurrection of Willow Run, the facility converted by Henry Ford during World War II to produce B-24 bombers. At its peak, the plant turned out more than one per hour, leading to the patriotic themed Rosie the Riveter legend and "Arsenal of Democracy" moniker. The ACM will offer testing and development like no other facility in the world. MDOT's contributions include staffing and the rebuilding of U.S. 12 nearby to accommodate the testing.
- Four bills signed into law by Gov. Rick Snyder in December 2016 enable further operations of automated/connected vehicles and truck platooning.

OVERVIEW OF LEGISLATION:

Governor Snyder recently signed into law four bills which amend Michigan law regarding automated motor vehicles and future mobility. These laws are now Public Acts 332, 333, 334 and 335 of the Public Acts of 2016, and are available at the Michigan Legislature's web site. The acts amend state law to allow greater flexibility in testing of such vehicles, allow on-demand automated motor vehicle networks, allow vehicle platoons, create a council on future mobility for further policy recommendations and amend provisions on liability for mechanics acting under the direction of a vehicle manufacturer. (All references are to the "MCL" or Michigan Compiled Laws section indicated).

TESTING ALLOWANCE ***Public Act No. 332*** amends MCL 257.665 to allow testing of an automated motor vehicle without a person physically present in the vehicle, but it must be monitored by a person who can promptly take control of the vehicle movements and bring it to a "minimal risk condition". A minimal risk condition may mean the vehicle is moving, but is under complete and safe control of the operator. This recognizes situations where a complete stop—such as on a freeway—would be dangerous. Minimal risk condition means the vehicle is under control but can be moved to a safe location such as the freeway shoulder. Test operations are only allowed byemployees, contractors or designees of the vehicle manufacturers or by certain researchers. Existing requirements for adequate insurance and use of manufacturer vehicle plates are retained.

OPERATIONS ALLOWANCE ***Public Act No. 332*** strikes the old "test only" restriction which limited automated motor vehicle use on public roads to just testing. Under the new law, full operations of automated motor vehicles will be allowed. In practical terms, no such vehicles are currently available for sale to the general public and the only use currently is testing. However, this change in state law means that the industry and consumers can move to open operations when the technology is ready instead of returning to the legislature for passage of another law.

ON-DEMAND AUTOMATED VEHICLE NETWORKS ***Public Act No. 332*** allows the creation and operation of on-demand vehicle networks using automated motor vehicles in participating fleets. These networks can be established by vehicle manufacturers, or by non-manufacturers who use vehicles supplied or controlled by manufacturers. The networks will enable passengers to use a digital network or software to connect to automated motor vehicles for transportation to locations selected by the passenger. Such networks will be exempt from local fees, franchises or regulations until 2023. (Authority is retained regarding control over communications networks or facilities). Public Act No. 333 also allows a specific form of on-demand automated motor vehicle networks called a "SAVE project".

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PLATOONS ***Public Act No. 332*** allows vehicle platoons to operate on Michigan roads after the platoon operator has filed a plan for such use with the Michigan Department of Transportation and the Michigan State Police. A vehicle platoon is defined as a group of vehicles traveling in a unified manner at electronically coordinated speeds.

COUNCIL ON FUTURE MOBILITY ***Public Act No. 332*** creates a 21 member council to advise state policy makers on future policy changes. The council members will represent broad interests including business, technology, research, insurance and other specialties. They will report at least annually.

AMERICAN CENTER FOR MOBILITY ROADS: The American Center for Mobility at the old Willow Run industrial city in Ypsilanti Township holds great promises for "real world" testing of vehicles. Public Act No. 334 amends Michigan law to ensure the testing area does not become open to general transportation.

MODIFICATION/MAINTENANCE LIABILITY: Current law says that a manufacturer is immune from liability if an unauthorized person modifies an automated motor vehicle. Public Act No. 335 amends state law to say that a mechanic operating according to a manufacturer's instructions is not liable in a product liability action for damages resulting from the repairs.

The opportunities:

- **Save lives**
- **Conserve energy**
- **Support the transformation of the auto industry, still the state's biggest job provider**

The challenges:

- **AAA survey revealing people's fears**
- **Skepticism about funding support given crumbling roads**
- **A robot driver may never win the Monaco Grand Prix, but it won't get wasted, distracted, sleepy, or rage-y, either**

https://www.wired.com/2017/03/uber-self-driving-crash-tempe-arizona/

MDOT Michigan Department of Transportation