# Legislative Analysis

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**AUTONOMOUS VEHICLES**

**Senate Bill 995 (substitute S-2 as passed by the Senate)**
**Senate Bill 996 (as passed by the Senate)**
**Sponsor: Sen. Mike Kowall**

**Senate Bill 997 (substitute S-2 as passed by the Senate)**
**Sponsor: Sen. Rebekah Warren**

**Senate Bill 998 (as passed by the Senate)**
**Sponsor: Sen. Ken Horn**

**House Committee: Communications and Technology**
**Senate Committee: Economic Development and International Investment**
**Complete to 9-12-16**

**BRIEF SUMMARY:**

Senate Bills 995-997 would each amend sections of the Michigan Vehicle Code while Senate Bill 998 would amend the Revised Judicature Act. Each contain requirements for autonomous vehicle testing and the use of self-driving vehicles on Michigan roads.

SB 995 would amend existing sections and add new sections to the Vehicle Code. These amendments would define new terms relevant to the use of autonomous vehicles in Michigan. The bill also would set parameters for the use of these vehicles and make other updates relating to autonomous vehicles on Michigan roadways.

SB 996 would add a new Section 65b to the Vehicle Code to set eligibility standards for a motor vehicle manufacturer to participate in a SAVE project.

SB 997 would add a new Section 665A to the Vehicle Code. This would grant a manufacturer of automated technology immunity from civil liability for damages that arise out of any modification made to a motor vehicle, an automated motor vehicle, an automated driving system, or automated technology if that modification was made by another person without the manufacturer of automated technology's consent. Additionally, the bill would amend other existing sections of the Vehicle Code by adding definitions relating to automatous vehicles and their use. [Note: The changes made in SB 997 are also made in SB 995].

SB 998 would amend Section 2949b of the Revised Judicature Act (MCL 600.2949b) by making a motor vehicle mechanic or a motor vehicle repair facility that repairs an automated motor vehicle according to specifications from the manufacturer of the vehicle exempt from liability in a product liability action for damages resulting from those repairs. The terms "motor vehicle mechanic" and "motor vehicle repair facility" would mean the

same as they do in the Motor Vehicle Service and Repair Act (PA 300 of 1974). The bill would take effect 90 days after it is enacted into law.

**DETAILED SUMMARY:**

**Senate Bill 995**

SB 995 would add the following terms:

"Automated driving system" would mean hardware and software that are collectively capable of performing all aspects of the dynamic driving task for a vehicle on a part-time or full-time basis without any supervision by a human operator." As used in this definition, "dynamic driving task" means all of the following, but does not include strategic aspects of a driving task, including, but not limited to, determining destinations or waypoints:

- Operational aspects, including, but not limited to, steering, braking, accelerating, and monitoring the vehicle and the roadway.
- Tactical aspects, including, but not limited to, responding to events, determining when to change lanes, turning, using signals, and other related actions.

"Automatic crash notification technology" would mean a vehicle service that integrates wireless communications and vehicle location technology to determine the need for or to facilitate emergency medical response in the event of a vehicle crash.

"Mobility research center" would mean a facility operated under an agreement between the state of Michigan, a local unit of government, and a Michigan university that has the ability to receive and accept from any federal, state, or municipal agency, foundation, public or private agency, entity, or individual, a grant, contribution, or loan for or in aid of the planning, construction, operation, upgrade, or financing of a facility for testing advanced transportation systems, including, but not limited to, connected or automated technology, automated driving systems, or automated motor vehicles to increase mobility options.

"Motor vehicle manufacturer" would mean a person that has manufactured and distributed motor vehicles in the United States that are certified to comply with all applicable federal motor vehicle safety standards and that has submitted appropriate manufacturer identification information to the National Highway Traffic Safety Administration as required under Federal law.

"On-demand automated motor vehicle network" would mean a digital network or software application used to connect passengers to automated motor vehicles, not including commercial motor vehicles, in participating fleets for transportation between points chosen by passengers, for transportation between locations chosen by the passenger when the automated motor vehicle is operated without any control or monitoring by a human operator.

"Participating fleet" would mean any of the following:

- Vehicles equipped with automated driving systems operating on the public roads and highways of this state in a SAVE project.
- Vehicles equipped with automated driving systems operating on the public roads and highways of this state in an on-demand automated motor vehicle network that are supplied or controlled by a motor vehicle manufacturer.

"Platoon" would mean a group of individual motor vehicles that are traveling in a unified manner at electronically coordinated speeds. A vehicle in a platoon would be exempt from the Code's current provisions regarding how closely one vehicle may follow another. However, the operator of a truck or truck tractor that is in a platoon must allow reasonable access for other vehicles as to afford those vehicles safe movement among lanes to exit or enter the highway.

"SAVE project" would mean an initiative that authorizes eligible motor vehicle manufacturers to make on-demand automated vehicle networks available to the public.

Existing terms with "automated technology" in the definition would have that phrase replaced with "automated driving system" in its definition. This change is consistent with the terminology used in the bill.

Another existing term, "automated mode," would be deleted by the bill.

Additionally, the bill would amend a current requirement that the Secretary of State maintain a computerized central file containing information on a person's driving record and provide that information to certain entities upon request in accordance with applicable laws. The bill would change "person" to "natural person." Presently, "person" is defined in the Vehicle Code as every *natural person*, firm, co-partnership, association, or corporation and their legal successors.

On-demand automated vehicle network

Such a network could be operated on a highway, road, or street in Michigan. SB 995 would prohibit local units of government from imposing a local fee, registration, franchise, or regulation upon an on-demand automated vehicle network until after December 31, 2022.

The bill also would add language stating that a person using an on-demand automated motor vehicle network would be exempt from the Code's prohibition on texting while operating a motor vehicle.

Testing an automated or driverless motor vehicle

Under the bill, the Vehicle Code's current requirements that must be met before beginning testing of an automated motor vehicle would also be extended to those wishing to test technology that allows a motor vehicle to operate without a human driver or any other automated driving system. However, the bill would add an exemption for a university researcher or an employee of the state transportation department (MDOT) or the department engaged in research or testing of automated motor vehicles.

Additionally, SB 995 would amend a provision relating to human monitoring of an automated technology by expanding it to include automated driving systems, and to also require that when a vehicle is operated on a highway or street in Michigan, a human operator is able to, if necessary, promptly take control of the vehicle's movements. Presently, the Code requires an individual to *immediately* take control of the vehicle's movements. If an individual does not, or is unable to, take control of the vehicle, the vehicle must be capable of achieving a minimal risk condition. The bill also would change a provision requiring a person who is part of monitoring an automated technology or automated driving system to be lawfully able to operate a motor vehicle in the U.S. by no longer requiring that an individual be *present* in a vehicle with automated technology or automated driving system. Rather, an individual would be required to *monitor* the vehicle.

When engaged, an automated driving system allowing for operation without a human operator would be considered the driver or operator of a vehicle for purposes of determining conformance to applicable traffic or motor vehicle laws and would be deemed to satisfy electronically all physical acts required by a driver or operator of the vehicle.

Michigan Council on Future Mobility

SB 995 would create a new council, the Michigan Council on Future Mobility, in MDOT. The council would be composed of the following, who would serve without compensation:

- Eleven voting members, appointed by the governor, who represent the interests of local government or are business, policy, research, or technological leaders in future mobility.
- One voting member appointed by the governor who is representative of insurance interests.
- Two state senators appointed by the Senate Majority Leader to serve as nonvoting ex officio members, one from the majority party and one from the minority party.
- Two state representatives appointed by the speaker of the House of Representatives to serve as nonvoting ex officio members, one from the majority party and one from the minority party.
- The secretary of state or a designee. This individual would be a voting member.
- The director of MDOT or a designee. This individual would be a voting member.
- The director of the Department of State Police (MSP) or a designee. This individual would be a voting member.
- The director of the Department of Insurance and Financial Services (DIFS) or a designee. This individual would be a voting member.
- The director of the Department of Technology, Management, and Budget (DTMB) or a designee. This individual would be a voting member.

The council would be tasked with providing the governor, legislature, the Department of State, MDOT, DIFS, DTMB, and MSP recommendations for changes in state policy to "ensure that this state continues to be the world leader in autonomous, driverless, and connected vehicle technology."

The governor would select one member to serve as chairperson of the commission. That person would serve at the pleasure of the governor. No later than March 31, 2017, the council must submit recommendations for statewide policy changes and updates, and at least annually thereafter.

Platoons

A person would be able to operate a platoon on a street or highway of this state if the person files a plan for general platoon operations with MSP and MDOT prior to beginning platoon operations. If the plan is not rejected by either department within 30 days after receipt of the plan, the person would be allowed to operate the platoon.

All of the following would apply to a platoon:

- Vehicles in a platoon would not be considered a combination of vehicles for purposes of the Michigan Vehicle Code.
- The lead vehicle in a platoon would not be considered to draw the other vehicles.
- If the platoon includes a commercial motor vehicle, an appropriately endorsed driver who holds a valid commercial driver license must be present behind the wheel of each commercial motor vehicle in that platoon.

Liability

As with SB 998, the bill would add a new Section 665A, which would make a manufacturer of automated technology or an automated driving system immune from civil liability for damages that arise out of any modification made to a motor vehicle, an automated motor vehicle, an automated driving system, or automated technology by another person without the consent of the manufacturer of automated technology, as provided in section 2949b of the Revised Judicature Act. [Note: This provision is also found in Senate Bills 996 and 997.]

Enacting Section 1

SB 995 would repeal Section 663 of the Vehicle Code. That section generally prohibits a person from operating an automated motor vehicle upon a highway or street in automatic mode. Currently, only an employee, contractor, or other person designated or otherwise authorized by the manufacturer of an automated technology can operate that vehicle during its use on a highway or street.

**Senate Bill 996**

Senate Bill 996 would outline the requirements a motor vehicle manufacturer would have to meet in order to participate in a SAVE project. To participate, the manufacturer would have to self-certify all of the following:

- That it is a motor vehicle manufacturer. A person that is not a motor vehicle manufacturer may not participate in a SAVE project.
- That each vehicle in the participating fleet is owned or controlled by the motor vehicle manufacturer and is equipped with all of the following:

        - An automated driving system.
        - Automatic crash notification technology.
        - A data recording system that has the capacity to record the automated driving system's status and other vehicle attributes including, but not limited to, speed, direction, and location during a specified time period before a crash as determined by the motor vehicle manufacturer.
    - That the participating fleet complies with all applicable state and federal laws.
    - That each vehicle in the participating fleet is capable of being operated in compliance with applicable Michigan traffic and motor vehicle laws.

A motor vehicle manufacturer's eligibility to participate in a SAVE project under this section is conditioned solely upon meeting these requirements, and it must verify its satisfaction of the requirements of this section using the self-certification described above.

All of the following would apply to a motor vehicle manufacturer that participates in a SAVE project:

- The motor vehicle manufacturer may commence a SAVE project at any time after it notifies the Department of State that it has self-certified. The notification required by this subdivision must also set the geographical boundaries for the SAVE project. A motor vehicle manufacturer would be able to make multiple notifications.
- The motor vehicle manufacturer may participate in a SAVE project under any terms it deems appropriate so long as the terms are consistent with the requirements listed here and other applicable law.
- The motor vehicle manufacturer must determine the geographical boundaries for a SAVE project, which may include, but are not limited to, any of the following:
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    - A designated area within a municipality, or a similar geographic or demographic area.
    - An area maintained by a regional authority, or a similar geographic or demographic area.
    - A university campus, or a similar geographic or demographic area.
    - A development that caters to senior citizens, or a similar geographic or demographic area.

- Public operation of a participating fleet must be confined to the boundaries selected by the motor vehicle manufacturer.
- For the duration of a SAVE project, the motor vehicle manufacturer must maintain incident records and provide periodic summaries related to the safety and efficacy of travel of the participating fleet to the Department of State and the National Highway Traffic Safety Administration. An individual who participates in a SAVE project is deemed by that participation to have consented to this collection of the information while in a vehicle that is part of the participating fleet and to the provision of the summaries to the department and the National Highway Traffic Safety Administration. Prior to commencing a SAVE project, and for the duration of the SAVE project, the motor vehicle manufacturer must make publicly available

a privacy statement disclosing its data handling practices in connection with the applicable participating fleet.

Liability and insurance

A motor vehicle manufacturer must insure each vehicle in a participating fleet as required under the Vehicle Code, as well as under Chapter 31 of the Insurance Code. For each SAVE project in which it participates, during the time that an automated driving system is in control of a vehicle in the participating fleet, a motor vehicle manufacturer would assume liability for each incident in which the automated driving system is at fault, subject to Chapter 31 of the Insurance Code. When engaged, an automated driving system allowing for operation without a human operator would be considered the driver or operator of a vehicle for purposes of determining conformance to applicable traffic or motor vehicle laws and would be deemed to satisfy electronically all physical acts required by a driver or operator of the vehicle.

**Senate Bill 997**

In addition to adding and amending the same definitions as SB 995, SB 997 also would amend a provision relating to private roads open to the general public. The bill would add language stating that a "private road that is open to the general public" does not include a road under the control of a mobility research center, regardless of whether a private research entity or a corporation is using the road under an agreement with the mobility research center.

**FISCAL IMPACT:**

Senate Bill 995: The bill would produce a negligible increase in expenses for the Department of State. In order to operate a platoon of automated motor vehicles, a person would be required to file a plan for general operations with the Department of State Police and the Department of Transportation and to be approved by both departments. This requirement would impose indeterminate but minor costs on these departments due to the costs associated with the development of sound criteria for approval and the implementation and administration of the review process.

It is expected that the creation of a council within the Department of Transportation would have minimal costs associated with it due to the specification of council members serving without compensation.

Proof of insurance for vehicles with automated driving systems would have to be submitted to the Secretary of State. It is not anticipated that there would be additional expenditures for the Secretary of State to determine that the insurance was satisfactory.

The bill would not generate additional revenue for the State and would have no fiscal impact on local governments.

Senate Bill 996: The bill would have a negligible fiscal impact on the state and no fiscal impact on local government. The requirement for a motor vehicle manufacturer to notify

the Department of State in order to commence a Save Project would not necessitate any substantial review process as it would not require approval from the department.

Senate Bills 997 and 998: These bills would have no fiscal impact on state and local government.

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■ This analysis was prepared by nonpartisan House Fiscal Agency staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.