

Connected and Automated Vehicles Advisory Council

October 30, 2018

Meeting Summary

1. Welcome and Introductions

Commissioner Zelle and Chris Clark welcomed the members to the meeting.

2. Executive Order Report Outline & General Recommendations

Council reviewed the draft outline of the report and the 5 key recommendations, including: funding, clear state policy, partnerships, public education and outreach, and leadership.

3. Vehicle Registration, Driver Training and Licensing Subcommittee

The Department of Public Safety discussed its subcommittee considerations and recommendations, including:

4. **Recommendation 1: Driver's education partnerships;** Driver's education and testing doesn't address lane-assist, or other automated features.
5. **Recommendation 2: Driver's licenses should only be required if vehicle can be operated by a human.**
6. **Recommendation 3: Licensing and Registration** – don't require a special license.
7. **Recommendation 4: Testing permits** – DOT and DPS should partner together to safely test and deploy CAVs.
8. **Recommendation 5: Accessibility & Equity** – Testing should include people with disabilities, aging populations, and others.
9. **Recommendation 6: Need research and funding for research.** Need an active partnership b/t drivers' training, auto industry, and state.

The Council asked if there were examples of this on public-private research partnerships? CAV-X and DPS will follow-up with examples.

10. Insurance and Liability Subcommittee

The Department of Commerce and Council Member Rizzolo discuss the subcommittee's goal (to ensure Minnesota insurance laws are responsive to CAV tech to allow innovation in developing products and services while providing adequate protection) and themes (data, liability limits, education, changes to laws, safety laws, and new products and services). The recommendations included:

1. **Recommendation 1: Adopt Consistent AV definitions** for driver, operator, owner, AV. Use NHTSA definitions.

2. **Recommendation 2: Continue working group.** Don't change laws in 2019 session. Current law provides necessary protection.
3. **Recommendation 3: Adopt insurance minimums for AV testing.** If Minnesota approves testing, Legislature should adopt mandatory minimum. Each testing entity should provide financial responsibility as specified by Commerce. Minimum financial liability limit should be \$5M per occurrence
 - a. The Council asked whether this liability limit would require a statutory change or internal regulatory change? Commerce and CAV-X will look into this.
 - b. The Council asked the group to examine all laws to ensure these recommendations are accurate. Some states don't have additional insurance minimums. There is a need to determine whether this is a law or regulatory issue.
4. **Recommendation 4: Address data access, ownership, use of data, and data preservation.** Need to determine how MGSPA applies, including disclosures and consumer consent. Partner with insurance companies to understand how they would use safety data.
5. **Recommendation 5: Consumer education partnerships.** Consumers will need access to information for insurance, liability, driving safety, others (e.g. car seat campaigns). MN should encourage partnership amongst auto manufacturers, insurers, Commerce and agencies. The Council advised that auto dealers are not able to explain safety features to customers and Minnesota should not follow that example. The Council recommended using similar programs like the seatbelt and child seat education programs.
6. **Recommendation 6: Facilitate an insurance environment that anticipates development of AVs.** Minnesota should be open to new products and services that will develop.

The Council inquired about liability when a crash occurs. Some states have passed laws that when a collusion occurs, the human driver has to remain on site. Some state laws make the OEM is responsible. OEMs feel that current tort liability system addresses CAV. Minnesota has a no-fault system. With current vehicles, there are a significant number of recalls. Minnesota will need to continue to monitor this at national level.

7. Transportation Infrastructure Subcommittee

MnDOT gave an overview of the subcommittee's participants and meeting process, and the subcommittee's recommendations, including:

1. **Recommendation 1: Need standards** at local, state and federal level.
2. **Recommendation 2: Update state procurement** to allow more flexibility.
3. **Recommendation 3: Pursue public and private investment** in fiber optic, signals, pavement markings, telecommunications and data collection.
4. **Recommendation 4: Provide funding to support CAV infrastructure capital**, operational, testing corridors, and public education and outreach.
5. **Recommendation 5: Identify additional revenue streams to support CAV capital needs** (e.g. loss in gas tax revenue).
6. **Recommendation 6: Consider all road user needs**, e.g. pedestrians, cyclists, persons with disabilities, transit, railroads.

7. **Recommendation 7: Develop data standards** and centralized systems for sharing infrastructure data (e.g. work zone, traffic signals, road conditions) to 3rd parties.
8. **Recommendation 8: Partnerships** – Identify roles, responsibilities, and liability for public and private partners.
9. **Recommendation 9: Testing & Priorities** – Support safe road testing on existing public infrastructure, including truck platooning.
10. **Recommendation 10: Electric vehicles** – Support efforts for EV deployment.

The Council asked which standards need to be prioritized and the subcommittee agreed that standards like uniform traffic control devices which are federal standards need to be addressed. Local units of government follow Minnesota standards. Mobility as a service (MaaS) was considered in these conversations, but most of the MaaS policy discussions occurred with Land Use and Planning Subcommittee. The Council asked to clarify that private testing facilities (e.g. 3M, University of Minnesota) were also discussed in addition to publicly-owned but not-publicly accessible spaces like MnROAD. MnDOT clarified that CAVs are designed to operate where there is connectivity, otherwise a human driver must take control of the vehicle, so focusing on connecting systems is critical.

11. Land Use and Planning Subcommittee

Liaisons provided background on the meetings including locations throughout the state and shared important considerations when development policy, noting that land use and planning is largely a local and regional government issue. The group discussed many themes including MaaS, social and environmental impacts, parking, cyclist and pedestrian impacts, revenue, equity, rural and suburban impacts, and many others. The recommendations included:

1. **Recommendation 1: Education** – Need to encourage greater buy-in by providing public info with benefits and risks, and successful public demonstrations. Addresses lack of information or misinformation.
2. **Recommendation 2: Equity** – Standardize quality of service; require a certain percentage of ADA compliant vehicles. Provide infrastructure in all areas of MN.
3. **Recommendation 3: Role of state and local government** – Maintain current delegation of powers between state and local governments. Innovation should be encouraged.
4. **Recommendation 4: Infrastructure Planning** – Increase public well-being thru people focused design and investment that supports all modes.
5. **Recommendation 5: State should establish a clear set of values and objectives** to guide CAV policy and development. Establish what we're trying to accomplish.

The state also met with metropolitan planning organizations (MPOs) to address their specific needs, and MPO recommendations included: (1) Legislature should proceed slowly with passing new laws; (2) Funding is the most important piece; (3) Bi-state MPOs require coordination across state lines; and (5) the State and MPOs should collaborate.

The Council clarified that suburban impacts were addressed in these conversations as well as rural impacts. Liaisons addressed the uncertainty about the future, e.g. it's unclear at this time if CAV will incorporate MaaS, decrease emissions standards, etc. The liaisons clarified that requiring a certain

percentage of vehicles be ADA compliant is a recommended percentage, not a prescribed level and that CAV should not exacerbate existing disparities.

Finally, the liaisons noted that while there could be state support in experimenting at the local level to address parking concerns, the state could help fund these pilots. Regional bodies need funding to address CAV.

12. Revenue Subcommittee

MnDOT and the Department of Revenue discussed that with the subcommittee work heavily focusing on funding and revenue, a separate subcommittee was formed to address revenue impacts. The subcommittee recommends creating a public-private working group to conduct a comprehensive review of current and future revenue models for transportation and to make recommendations to diversify and supplement transportation funding.

The Council clarified that currently the transportation system is underfunded; the gas tax is not indexed to inflation. Studies are looking into mileage-based user fees but data access is a challenge. Revenue clarified that Minnesota counties have authority to implement a ½ cent sales tax.

The Council noted that the Executive Report should address the fact that the current transportation system is under-funded. In addition, the Revenue Working Group should specifically address electrification and costs of expanded the grid.

13. Accessibility Subcommittee

Liaisons discussed that a preamble similar to the Americans with Disabilities Act is necessary; and that Minnesotans need to understand Olmstead Act requirements. Accessibility recommendations included:

1. **Regulatory changes:** Do not require a License for Level 4 or 5 vehicles; insurance requirements should be affordable; universal design should be required in a certain percentage of AVs; CAV systems should be designed to allow people to travel independently.
2. **Funding:** Vouchers may help low-income communities pay for CAV access; create a variety of financing options for use of this technology; the cost should be the same for both abled and disabled communities. Cost prohibitive transportation is discriminatory
3. **Testing:** Pilot projects should include urban, suburban, and rural Minnesota. Testing should require auto manufacturers to coordinate with blind, hearing, and other people with disabilities to allow people with disabilities to provide feedback.
4. **Public Education and Engagement:** Need funding for training and education on how to interact with and operate CAV. Need to reach out broadly to organizations including health, safety, clinics, employers, and faith communities.

14. Equity Subcommittees and Recommendations

The Minnesota Mediation Center, which facilitated the subcommittee meetings, gave a background of stakeholder process. Over 21 meetings were held in August and September, with 7 of these focusing on equity. These conversations didn't focus on a particular policy area; community members were asked to focus on how CAV could impact their lives.

Enhanced Process. Facilitators had experience facilitating race and equity conversations, and included Native American and Latina backgrounds. The state and facilitators conducted outreach into various communities to ask about their knowledge of CAV, their feelings and whether their community would be interested in participated. This was an enhanced process wherein meetings were intentionally throughout Minnesota where people desired to meet.

Challenges. Facilitators shared with the council that these equity conversations are challenging to organize because there is mistrust based on historic feelings of being disenfranchised. Months is too short an amount of time to build trust and do as much as we wanted.

Hmong Conversations. MnDOT and facilitators met with Hmong elders and community members to discuss pricing and how important it is not to price communities out of this technology as that can lead to disparate social justice impacts. The Hmong community did not want to see a social/class divide from CAV policies. Aging populations and shared mobility were priorities for Hmong participants, in addition to electric charging stations, and the need to test in Hmong communities. Finally, Hmong participants want the state to continue conversations on CAV to build public trust and understanding.

Facilitators' recommendations. Resources should be made available to continue these conversations and CAV-X should be directed to do it. Doors have been opened; the state needs to find ways to continue these conversations to show real inclusion. Listening, demonstrating listening will go a long way in developing trust. Community leaders and elders are an important part of these conversations

15. Council General Report Comments

The Council made several recommended changes to the draft report and outline including: how to continue the work of the Executive Order, ensure individual stakeholder comments are included in the stakeholder report, and address what will happen if the State fails to take action. Finally, the Council agreed that it will need a 1-page executive summary of the report to share with the public and policy makers and a communications plan for the report will be needed.

Next meeting: November 27, 2018 from 9-2 at Polaris Offices in Medina, Minnesota