

## Governor's Advisory Council on Connected and Automated Vehicles

### Meeting Summary

December 8, 2021

#### *CAV in Long-Range Planning and Innovation Alliance Outreach and Education Committee Report Out*

##### 1. *Welcome – Commissioner Margaret Anderson Kelliher and Phil Magney, Council Co-Chairs*

- Commissioner Anderson Kelliher welcomed everyone and noted the launch of the Med City Mover in September and that we are learning lots of lessons already with the project
- Co-chair Phil Magney also welcomed everyone and updated the council on the work VSI has been doing collecting automated vehicle data, including high contrast lane markers
- **Council Member Attendees:** Co-chair Margaret Anderson Kelliher, Co-chair Phil Magney, Amber Backhaus, Ryan Daniel, Danielle Elkins, Dan Chen, Bret Weiss, John Hausladen, Patrick Weldon, Damien Riehl, Myrna Peterson, Edward Reynoso
- **Ex-officio member and guest attendees:** Rep. Connie Bernardy, Todd Biewen, Gina Baas, Chris Hadfield, David Fenley, Mark Phillips, Ginny Crowson, Ashley Hudson, Sen. Jim Carlson, Tina Folch, Joel Carlson, Melissa Reeder, Alice Roberts-Davis, Sarah Psick, Rep. Steve Elkins, Frank Douma, Cathy Chavers, Katie Caskey, Margaret Donahoe, Kevin McKinnon, Alex Hevern, Taylor Spreeman, Tim Lynaugh, Peder Kjeseth, Courtney Jasper, Jason Metsa
- **MnDOT attendees:** Tara Olds, Jay Hietpas, Ben Lowndes, Erik Rudeen, Thomas Johnson-Kaiser, Philip Schaffner, Scott Shaffer, Cory Johnson, Nancy Daubenberger, Craig Gustafson, Laura Roads, Dan Rowe, Shaker Rabban

##### 2. *CAV-X Staffing Updates*

- Kristin White left MnDOT this fall and is now the Chief Operating Office at ITS America. Tara Olds is serving as Acting Executive Director of CAV-X Office. Thomas Johnson-Kaiser came from MnDOT's Research and Innovation Office and is working with CAV-X on Engagement and Project Management and in particular working with the Governor's Advisory Council. Scott Shaffer is on mobility from the Office of Transportation System Management helping CAV-X assess progress on the CAV Strategic Plan.

##### 3. *Last Meeting Recap*

- Tara Olds, MnDOT CAV-X, shared what we heard from the last GAC meeting, including Cavnue presenting on their work designing the physical, digital, coordination, and operational infrastructure to accelerate and realize the full potential of CAV to make roads safer, less congested, shared, and sustainable.
- Last meeting also included updates on CAV projects happening throughout Minnesota

#### 4. *Council Member Engagement Interviews*

- Thomas Johnson-Kaiser, CAV-X, interviewed many of the council members and shared what he learned about their thoughts on the council's success and areas for focus in 2022.
- Council members identified priorities for 2022 including:
  - i. More applied work such as technology demonstrations
  - ii. Policy and CAV legislation around data and personal delivery devices. Educating the legislature.
  - iii. Outreach and partnerships with Minnesota business, other state DOTs, OEMs, CAV impacted workforce
  - iv. How will CAV impact the workforce
  - v. Safety
  - vi. Consistent public outreach and education
  - vii. Meet in person – Council members offered to host meetings
- Suggestions for improvement from members included:
  - i. Make meetings more interactive and a conversation.
  - ii. Clarify what the Advisory Council is accomplishing. Need tangible results.
  - iii. Clarify relationship of Advisory Council and Innovation Alliance. Should Advisory Council be providing more direction to Innovation Alliance?
  - iv. Continue to provide clear communication. More communication and engagement between meetings
- Additional feedback is always welcome and council members can reach out to Tara and/or Thomas at any time and feedback received from the council members will be incorporated as we plan for 2022.

#### 5. *CAV in Long Range Planning*

- Philip Schaffner, MnDOT Transportation System Management, provided updates on how CAV is incorporated in long range planning
  - i. SMTP is developed by MnDOT but covers all transportation. Next update due in 2022 with draft out for public comment in early 2022. The most recent 2017 SMTP included CAV trend analysis but light on specific references. CAV mentioned in one strategy and included a work plan commitment for MnDOT to study and work with transportation partners to prepare for connected and automated vehicles.
  - ii. For the 2022 update, MnDOT conducted a 2021 State of Practice Review of other states and found that less than half of states currently include a strategy for CAV readiness in their long-range transportation plans – most at a very high level, Minnesota was one of the few states to conduct CAV scenario plan and no states have CAV specific performance measures
  - iii. Public and stakeholder input has confirmed support for continuing to proactively lead and plan for CAV with a focus on strategies that also benefit human drivers, maintain flexibility, consider implications for rural and small urban communities, and maintain an equity focus.
  - iv. There is one proposed CAV Strategy with Actions in for the 2022 SMTP which is “Promote the development and deployment of connected and automated transportation technologies.”
    - 1. Actions for this strategy include piloting technologies and business models to maintain flexibility in a changing market, designing roads to

support current & new technology with proven safety benefits for all users including human drivers, using CAV technology to improve transportation equity and accessibility for all Minnesotans and to reduce transportation disparities, improving work zone safety by leveraging CAV technologies and data, and advancing CAV research and data collection to address Minnesota challenges and opportunities

- v. The team is still working on establishing possible performance measures and currently have identified signal CAV readiness - % of signals that broadcast signal phase and timing as a potential for more consideration.
- vi. Questions and Discussion
  - 1. How does signal phasing and timing address the strategy?
    - a. Relates to promoting connected transportation supporting technologies
  - 2. How does proposed CAV Strategy and Actions fit into existing CAV strategies and actions the Governor's Advisory Council has been working on the last few years?
    - a. It covers broad strategies for the state and is supposed to be overarching guidance and continue to support the recommendations previously identified
    - b. SMTP is a high-level overarching transportation plan. The CAV specific strategies will be referenced but not necessarily included.
  - 3. How does fiber fit into CAV strategy and actions?
    - a. Fiber is a potential supporting technology for CAV, but is mentioned more broadly in the SMTP in supporting intelligent transportation systems

#### 6. *Preview of Federal Infrastructure Bill*

- Tara Olds provided a high-level preview of the federal infrastructure legislation and potential CAV implications.
  - i. We are anticipating \$4.5 billion coming to Minnesota in next five years with a 30% increase in formula funding to Minnesota
  - ii. MnDOT will be eligible to compete for funding
  - iii. Section 25005 – Strengthening Mobility and Revolutionizing transportation (SMART) Grant Program
  - iv. Criteria includes public transportation systems or other transit, population density, leadership and capacity, data sharing, technical and financial commitments, increase access, private sector investments and partnerships
  - v. Eligible projects: coordinated automation, connected vehicles, intelligent, sensor-based infrastructure, smart technology traffic signals
  - vi. Appropriation language has not been released yet, so more details are still coming out
- MnDOT will be scheduling an optional meeting in early 2022 to discuss the legislation in more details and discuss opportunities for Minnesota.
- Transportation Alliance and MnDOT holding a workshop next week to further discuss expectations of the federal infrastructure bill – and council members and guests are welcome to register to attend virtually or in-person option  
<https://www.transportationalliance.com/event/federal-infrastructure-plan-workshop>

## 7. *Innovation Alliance Outreach and Education Committee Updates*

- Tara Olds, Katie Caskey, HDR, Gina Baas, Center for Transportation Studies, and Ashley Benson Bolton & Menk provided updates on the past and upcoming work being done by the Innovation Alliance Outreach and Education Committee
  - The committee has developed the priorities including CAV messaging materials, CAV newsletter, tools and resources on the CAV website, future demonstrations, CAV conference and CAV technology showcase.
- Statewide CAV Communications, Messaging, and Engagement Plan update
  - The plan team is currently finalizing the guidance and recommendations, creating tools for project managers, and implementation are all in progress
  - A statewide survey conducted in summer and fall of 2020 to understand what Minnesotans currently think of CAV, what they are excited and concerned about, what people want to know, and how folks want to be involved in planning for the future.
    - 2,192 total survey responses were received and 31 in-depth interviews were conducted following to understand perspectives deeper.
    - Top takeaways we found include:
      - People much more familiar with “automated” than “connected”
      - Self-driving the most familiar term
      - 68% have at least somewhat positive feelings about CAV, which is higher than some national survey results
      - 51% are comfortable sharing the road with CAV – differences based on the type of transportation people use
    - People are excited about potential for safety benefits and support new technology
    - People are concerned about the technology, safety and wanting to continue driving
    - Other key takeaways
      - The more familiar people are with CAV the more likely they are to be excited for it
      - Most people want to continue to be informed and involved
      - People generally support government having a role, especially related to safety
  - Audience analysis split into two groups – partner/industry and general public
    - Four CAV perspectives identified for general public
      - CAV Cautious – the information seekers
      - CAV Confident – the spirit squad
      - CAV Caregiver – the community allies
      - CAV Critical – the historically underprioritized
  - CAV Messaging and Engagement Guidance will include messaging and engagement goals, audience analysis, messaging guidance, engagement guidance, and recommended engagement and communications tactics that will help the state:
    - Build knowledge of CAV technology throughout Minnesota
    - Develop two-way lasting relationships
    - Integrate Minnesota’s CAV messaging and engagement
  - Key CAV messaging guidance to remember
    - Inform, don’t sell
    - Need to build to “CAV” terminology

- Incorporate the connected aspect of CAV technology
    - Include full range of CAV applications (e.g., multi-passenger)
    - Related topics: shared mobility, electrification, GHG emissions
    - People’s perceptions mirror the success of local projects
  - Strategic Programmatic Recommendations for Minnesota’s CAV Program include:
    - Update messaging/branding
    - Create and maintain a resource library
    - Revise MN CAV web presence
    - Enhance baseline survey data
    - Conduct regular surveying
    - Launch multi-agency communications working group
    - Implement a stakeholder management system and newsletter
    - Prioritize demonstration projects
    - Develop CAV ambassadors, champions, and thought leaders
    - Develop CAV community advocates
    - Launch CAV Equity Community Advisory Committee
    - Participate in industry events
  - Innovation Alliance and Governor’s Advisory Council will help led and support these efforts
  - General templates and materials being developed as ready-made resources and examples for partners
- Demonstration recommendations
  - The committee has developed three recommendation buckets of demonstration work to occur in the next 18 months including Drive MN, Learn MN, and Shape MN
    - Drive MN is an initiative that focus CAV demonstrations to increase awareness by allowing transportation professionals and elected officials to see and interact with the technology, vehicle, and infrastructure by showcasing technology throughout a number of destinations throughout the state. VSI has conducted similar programs in other states like Utah. This work could help expose decision makers to more CAV technology and share policy guidelines. This demonstration work has a tentative timing of summer 2022.
    - Learn MN is an initiative that focus CAV demonstrations to also increase awareness by allowing the public to see and interact with the technology, vehicle, and infrastructure by bring technology to community events and gatherings. This demonstration work has a tentative timing of summer 2022 through spring 2023.
    - Shape MN is an initiative that focus on connecting with traditionally underserved communities and exposing them to CAV technology. This demonstration work would help identify unique community needs and concerns. This demonstration work has a tentative timing of fall 2022 through spring 2023.
  - The committee also presented on hosting a CAV Conference and Tech Showcase to:
    - Engage stakeholders interested in CAV
    - Shine a spotlight on CAV initiatives and research in Minnesota
    - Provide updates from the national level and from other states
    - Showcase Minnesota companies and academic institutions as well as companies interested in doing CAV-related business in Minnesota

- Convene a half-day workshop to develop strategies for advancing CAV policies and legislation
    - The conference, workshop, and technology showcase have a tentative timing of summer 2022
  - Breakout Discussion
    - The meeting attendees divided into three breakout rooms to discuss the below questions regarding the Outreach and Education committee presentations on the messaging and engagement plan and planned demonstration work.
      - Council members shared feedback on messaging including:
        - We need to emphasize CAV is already here with level 1 and level 2 vehicles
          - We should highlight things like the apprenticeship pilot program that allows drivers 18 years of age to become professional truck drivers with certain driver assist technologies
        - Showcase how CAV is already being used and how the benefits expand outside of transportation and create new career opportunities
        - Safety is and will continue to be a top priority here in Minnesota and at the Federal level too.
        - We need to embed CAV messaging into other related technology work with engagement – not overload our audiences
        - Highlight what makes Minnesota stand out
      - Council members shared feedback on demonstrations including:
        - We need to engage with rural communities and disability community to help them understand the possibilities of CAV
        - Exposing technology unlocks excitement, even to non-drivers
        - We have the possibility to engage outside of Minnesota borders as well
        - The Council supports the Drive, Learn, Shape MN framework and getting CAV demonstrations to as many Minnesotans as possible
      - Additional comments included:
        - Technology can initially lead to a large initial expense so need to focus on communicating long term return on investments of CAV technology

#### 8. *Public Comment*

- No public comments

#### 9. *Closing*

- Upcoming CAV and Transportation events
  - i. Transportation Research Board Annual Meeting is being held in Washington, D.C. from January 9 – 13
  - ii. Minnesota Transportation Conference is schedule to be held in downtown St. Paul, MN from February 28 – March 2
  - iii. The next Governor’s Advisory Council Meeting is scheduled for March 16 from 9-11:30
    1. Meeting invite sent out to Advisory Council and Ex-officio Members. All public members can find the meeting information and meeting link on the CAV-X website.
  - iv. We will be scheduling an optional Advisory Council meeting for member Ex-Officio members to brainstorm ideas to use funding in the IIJA bill.

- Commissioner Anderson Kelliher and Phil Magney thanked everyone for attending and all their work in 2021

*Council adjourned*