

Connected and Automated Vehicles: Opportunity for Safety, Accessibility, and Equity

Momentum for connected and automated vehicles (CAVs) is on the upswing in Minnesota, as demonstrated by a strategic visioning workshop held in June 2018 and a report issued from the governor's advisory council in December, among other initiatives.

TPEC researchers have also been active, lending their expertise in policy discussions and engaging stakeholders throughout the state.

COMMUNITY ENGAGEMENT SESSIONS

Over the past year and a half, TPEC researchers met with an array of organizations in Greater Minnesota to better understand current and forecasted transportation needs and identify opportunities for CAV technology.

The research team gathered valuable feedback from local officials, stakeholders, and community members. "In these discussions, we heard that CAVs offer an opportunity to improve safety, accessibility, and equity," says TPEC researcher Adeel Lari.

TPEC partnered with several organizations to hold public engagement sessions in Grand Rapids, St. Cloud, Mankato, and Fergus Falls. Participants conveyed broad excitement about the potential for CAV technology to improve economic well-being and the overall quality of



MnDOT, the U of M, and other partners demonstrated an automated shuttle bus on the Twin Cities campus in April 2018.

life in their communities. Stakeholders identified CAVs as a way to enable aging in place and improve mobility for individuals who depend on transit.

The discussions also highlighted several implementation models that could supplement existing transit services. In addition, stakeholders identified a range of questions and concerns about the implementation of CAV technology in Greater Minnesota.

"We have very limited affordable, accessible transportation after 8 p.m. on weekdays and all weekend hours in rural areas. That limits social and work opportunities for those with physical, mental, and financial needs. I see self-driving vehicles as a positive step to assist that population especially."

—Myrna Peterson, Co-director, Mobility Mania, Grand Rapids

GREATER MINNESOTA WORKSHOP

A workshop in November 2018 in Mankato allowed the research team to share findings from the public engagement sessions. A goal of the workshop was to offer decision makers input, context, and insight from the community discussions to better inform current and future policy decisions.

“The event was also an opportunity to tell a story about the transportation needs of residents in Greater Minnesota and a chance to highlight the opportunities and obstacles involved in assuring the benefits of CAV technologies help all Minnesotans,” Lari says.

Key takeaways from the workshop:

- CAVs offer opportunities to improve equity and accessibility, supplement rural transit, and provide affordable transportation options.
- The private sector is interested in the economic implications and opportunities.
- There is particular interest in the implications for the freight industry: Are there opportunities to improve supply chains, address driver shortages, and help encourage businesses to consider locating in Greater Minnesota?
- A shared mobility model like that used by Uber and Lyft could be a business model for CAV implementation.
- It's important to get CAVs in front of the general public and show people that this technology is real and viable in their communities. Options could include a shuttle in community parades or use of CAVs as shuttles at the State Fair.

STRATEGIC VISIONING WORKSHOP, GOVERNOR'S COUNCIL

TPEC researcher Frank Douma was a member of the steering committee for the Strategic Visioning Workshop for Automated Vehicles in Minnesota. The event, held in June 2018, was sponsored by the Minnesota Department of Transportation, the McKnight Foundation, Hennepin County, the Metropolitan Council, and the Center for Transportation Studies.

Douma was also a liaison for the Land Use and Planning Subcommittee of the Governor's Advisory Council on Connected and Automated Vehicles.

CONTINUING EFFORTS

TPEC researchers will use the results of their public engagement efforts to propose best methods for deploying CAV technologies in different parts of the state. TPEC also launched a similar initiative in transportation-disadvantaged urban areas.

FOR MORE INFORMATION AND ADDITIONAL ANALYSES

TPEC welcomes public engagement and encourages you to contact us with your questions, comments, and research needs.

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