Governor Walker's Steering Committee
on Autonomous and Connected Vehicle Testing and Deployment

MINUTES
Meeting #8
May 23rd, 2018
9:00 am – 12:00 noon
Wisconsin State Capitol
Room 412 East
Madison, WI

1. **Call to order**
   a. Representative Neylon called the meeting to order at 9:07 a.m. Representatives Neylon and Kuglitsch will moderate the meeting in Secretary Ross's absence.
   b. Meeting will be dedicated to reviewing the draft report provided on 5/17/2018.
   c. Final committee comments are due to Brad Basten by June 1 to be worked into the final report.
   d. Roll was called by Brad Basten, staff to the committee. List of members in attendance is listed at the end of these minutes.

2. **Review / approve minutes from last meeting**
   a. Minutes from April 25, 2018 were approved.

3. **Discussion on May 22/23rd draft of committee report**

Neylon: Thanked Brad Basten and Benjamin Vondra from WisDOT for their assistance in the creation of the report, and the Neylon and Kuglitsch staff in their work to assemble comments, discussions, guest presentations and industry reports into the final version of the report. Regarding Page 8 recommendation B1, creation of working group to continue following advances in this industry. The best way to approach creation of new committee is to ask existing committee members to opt-in if interested in assisting on an as yet to be defined working group. Please let Brad, Rep. Neylon or Rep. Kuglitsch know if you are interested.

Kuglitsch: Technology continues to change. Report is not set in stone, merely a snap shot of the situation today. Working group will follow and work through issues. New group may be half the size of current committee. Looking for people interested and passionate about moving forward.

Neylon: See recommendations on pg 8, (reads through A, B1, B2, B3, C, D, E which follow goals spelled out in executive order). Page 22, ten chapters of statute that need to be reviewed in more detail. OCI comments regarding liability will be included in report.

Cyra: Asked the group to continue, in report and future work, to clarify Connected Vehicle technology vs Autonomous Vehicle. Offer to supply language to staff for report. **Kuglitsch**: Any place in report to correct? **Cyra**: Specific notes have been submitted to Brad but not worked into this draft. **Rafferty**: Report did a pretty good job in distinction. AAMVA report is also a good resource regarding emerging standard terminology. In some cases like cyber security

Connected and Autonomous terms are important to link where appropriate. **Caya**: In our experience, industry is not standardized yet on terminology.

Mellon: Do we need include a scope statement that the report only applies to machines on roadways, vs autonomous machines, drones, trains, planes? **Kuglitsch**: Charge for committee was for vehicles, trucks and cars. **Lewandowski**: Ad hoc group will be important because this technology will morph into Artificial Intelligence. Should keep current report scope, but keep Mr. Mellon's comment in mind.

Noyce: Regarding pg 22 and rules of the road, add - continued investigation of what signs, and markings will look like moving forward. How does this affect Heads Up Display technology that might supplant the need for signs? **Drager**: HUD and CAV will be far down the road, and need to supply classic signs for standard vehicles and pedestrians and bicyclists. **Cyra**: Can refer to Manual of Uniform Traffic Control Devices. **Noyce**: University of WI assists on national group working on advancing MUTCD guidelines.

Tolleson: Maybe review for clarity, "infrastructure" – last issue at the top of pg 20; will this include all roads, autonomous lanes, technology connected to road?

Caya: We've mentioned research, working group, and strong link to Wisconsin Proving Grounds. The support of Dr. Noyce's UW department mission and the Wisconsin Proving Grounds will be very important to tie together new research and policy for the state.

Drager: Has there been a recommendation on platooning lanes either for trucks, or specific highways? **Neylon**: No. **Cyra**: This is "design" and operations shouldn't be in this report. Needs to go through systems engineering to determine best appropriate use or designation of platooning lanes or rules.

Neylon: (to Dreager) Keep in mind the new law regarding platooning while working group moves forward.

Risser: Recommendation B2: What is meant by "minimum expectation of manufacturers"? **Ben Vondra:** During many discussions it came up as an opportunity for the working group to structure minimum framework when working with a company; registration, testing, tracking, framework for communication. Could change this language. **Kuglitsch**: Need to determine what is required during testing. Should there be an agreement between municipality and companies regarding driver responsibilities, use of a GEOfence etc.? **Neylon**: Can work with Senator Risser to reword this section to be clear there will be some expectations of manufacturers before they test in the state.

Cyra: Another recommendation is a possible development of CAV strategic plan for Wisconsin. A lot of states are seeing success doing this. Can provide structure, partnerships and path to work through list of topics.

Noyce: Re: Senator Risser's comment – pg 20. Could add generic bullet outlining data sharing expectations so we can learn about testing that will be going on on our roadways.

Caya: We are applying for a permit in another state for testing. Many of these things are included in that process; bonding, driver's minimum expectations during testing and to be certified at a higher level than just a driver's license. Data share is an important part of that agreement.

Mellon: What are talking about when we say "data share", reports of testing, stream of data from vehicle to infrastructure, proprietary data on vehicle performance? There is no standard data format like Waymo stated, there are no RFC (Request For Comment) industry framework standards. This is proprietary and likely will not be shared with the public. What are we sharing?

Cyra: There are some examples where data is shared, like Waze, that combine and do share Google / Alphabet info from "connected citizens" programs. There are also closed systems like Tesla and Waymo.

Heady: WEDC will be including sections on economic research impacts and current studies, but will need to be monitored in the future. US Dept. of Commerce has projections on impact on occupations that can be applied to WI industry, supply chain and also CAV testing companies, and individuals that don't have good access to transportation currently. Will monitor opportunities and negative impacts in industries involved in auto crashes and repair, job skills, educational partners, and community planning. Would be valuable to have WEDC involved in continuing discussions regarding CAV.

Cyra: What does "highlight specific examples of connected corridors" mean? Perhaps provide a list of pilot corridors. **Kuglitsch**: Group was asked to highlight corridors. Can wordsmith. **Rafferty**: Committee decided not to "designate special corridors", but to promote the best corridors to use for testing or deployment.

Kuglitsch: Pg 16 "Additional statement from OCI to be inserted here". OCI comments will be important to report.

Neitzel: Regarding pg 26, partnerships, is there anything missing where a company wishing to come to the state can find what they need to get started? **Neylon**: Let us know by June 1st if anything is missing.

Cyra: There are many technology partnerships it will take to deliver the complete CAV systems.

Caya: Important to continue to provide outreach to groups like counties and social groups that can't follow this topic all of the time. This group needs to keep that communication in mind.

Kuglitsch: This concludes our discussion. Wanted to thank everyone that has been active in this group. It has been a lot of information to go through. Good idea to have ongoing group and let us know if you want to continue to be active in the future discussions.

Neylon: Has been informational and interesting. Including other speaking engagements and outreach. Looking forward to continuing working with everyone on this important issue.

Basten: Comment from Sheriff Michek recommended a "Quick Response" group identified to handle incidents and CAV's, gather data, respond and report back to the group. The first CAV accident will create questions and interest on how the state is handling the roll out of this technology. Echo other's thanks for the participation, and this has been a great group to work with.

4. **Next steps**
   a. Due to the timing of comments to be included and final report completion **there will not be a June meeting of this committee.** Tentative plan for release of report June 30, 2018. Please submit comments by June 1st.

ADJOURNED: Representative Neylon adjourned the meeting at 10:00 a.m.

Members present
 Steven Caya
 Steven Cyra
 Trooper Tracy Drager
 Representative Jason Fields
 Kathy Heady for Mark Hogan
 Representative Mike Kuglitsch
 Jeff Lewandowski
 Ric Mellon
 Will Neitzel
 Representative Adam Neylon
 Dr. David Noyce
 Peter Rafferty
 Senator Fred Risser
 Jason Tolleson