Washington State
Transportation Commission Meeting

December 11, 2018
Agenda

• Introductions and Work Group Purpose
• Work Group Organization
• Policies and Procedures
• Meeting Summaries
• Recommendations and Actions
• Plan for 2019/21 Biennium
Automated Vehicles are Here

- 8 companies self-certified with Dept. of Licensing (DOL)
- Testing operations on roadways today
- Washington must plan now to prepare for AV’s and protect public safety

Source: Waymo
Substitute House Bill 2970

Establishes Autonomous Vehicle Work Group Charged With:

• **Following developments** in AV technology and policies
• **Exploring approaches to modify state policy, rules and laws** to further public safety and prepare for the emergence of AV technology
• **Share information** on AV technology and policies with interested stakeholders
• At the direction of the legislature, **engage the public** through survey, focus groups, and other means, to better inform policy makers
• **Provide recommendations to the WSTC**
• The WSTC must develop and provide recommendations based upon the input from the workgroup and submit them along with a **progress report to the Governor and Legislature each year**.
Work Group Purpose

• Identify measures necessary to enable and ensure safe operations of AVs on public roadways
• Five-year timeframe to make fact-based determinations and recommendations
• Inclusive, collaborative process to gain input from a range of stakeholders and interests
Work Group Overview
# Work Group Structure

## AV Work Group Executive Committee
- Governor
- Insurance Commissioner
- DOL Director
- DOT Secretary
- WSP Chief
- Traffic Safety Commission Director
- State Chief Information Officer
- WSTC Chairman
- Four members from Senate
- Four members from House

## SUBCOMMITTEES

### LICENSING
- **2 Co-Chairs**
- DOL Support Lead
- Manufacturer vehicle testing, vehicle regulation, driver’s licensure, rules of the road

### SAFETY
- **2 Co-Chairs**
- WSTC & WSP Support Lead
- Traffic safety and law enforcement

### INFRASTRUCTURE & SYSTEMS
- **2 Co-Chairs**
- DOT Support Lead
- Roadway infrastructure, traffic management, transit vehicles

### SYSTEM TECH & DATA SECURITY
- **2 Co-Chairs**
- State CIO Support Lead
- Data and information management, cybersecurity

### LIABILITY
- **2 Co-Chairs**
- Insurance Comm. Support Lead
- Insurance and tort liability, criminal law

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*DSHS, L&I and Commerce: Play a supporting role regarding cross-cutting issues including implications on social services, access, environmental justice, labor and small business*
### Executive Committee Membership

<table>
<thead>
<tr>
<th>Requirement in Legislation</th>
<th>2018 Representative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governor (or designee)</td>
<td>Charles Knutson, Senior Policy Advisor, Governor’s Office</td>
</tr>
<tr>
<td>Insurance Commissioner</td>
<td>Mike Kreidler</td>
</tr>
<tr>
<td>Director, Department of Licensing</td>
<td>Teresa Berntsen</td>
</tr>
<tr>
<td>Secretary of Transportation</td>
<td>Roger Millar</td>
</tr>
<tr>
<td>Chief, Washington State Patrol</td>
<td>John Batiste</td>
</tr>
<tr>
<td>Director, Traffic Safety Commission</td>
<td><strong>Darrin Grondel (Executive Committee Chair)</strong></td>
</tr>
<tr>
<td>4 Senate Members</td>
<td>Senators Manka Dhingra, Curtis King, vacant Republican and Democrat seats</td>
</tr>
<tr>
<td>4 House of Representatives Members</td>
<td>Representatives Zack Hudgins, Shelley Kloba, Matt Shea, vacant Republican seat</td>
</tr>
<tr>
<td>Additional Member</td>
<td>James A. Restucci, Commissioner, Washington State Transportation Commission</td>
</tr>
<tr>
<td>Additional Member</td>
<td>Alex Alben, Chief Privacy Officer, Office of the State Chief Information Officer</td>
</tr>
</tbody>
</table>
## Subcommittee Leadership

<table>
<thead>
<tr>
<th>Subcommittee</th>
<th>Public Sector Co-Chair</th>
<th>Private Sector Co-Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensing</td>
<td>Megan McCann</td>
<td>Drew Wilder</td>
</tr>
<tr>
<td>Liability</td>
<td>Lonnie Johns-Brown (OIC)</td>
<td>Harris Clarke (PEMCO)</td>
</tr>
<tr>
<td>Infrastructure and Systems</td>
<td>Roger Millar (DOT)</td>
<td>Michael Ennis (AWB)</td>
</tr>
<tr>
<td>Safety</td>
<td>Captain Dan Hall (State Patrol)</td>
<td>Kenton Brine</td>
</tr>
<tr>
<td>System Technology and Data Security</td>
<td>Alex Alben (OCIO)</td>
<td>Michael Schutzler (WTIA)</td>
</tr>
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</table>
• **Clearinghouse** for all AV-related issues for Work Group

• **Follow developments** in AV technology and policy

• **Explore modifications to state policy, rules and law** to further public safety and prepare for AV deployment

• **Make recommendations to the WSTC** for inclusion in their report to the Legislature and Governor
• Members unable to attend are encouraged to designate a **substitute**, who is **eligible to vote**

• Majority of members constitutes a quorum

• **ALL recommendations** from subcommittees will be advanced to the WSTC (regardless of vote)

• The Executive Committee (EC) may identify by a **2/3 majority vote**, the subcommittee recommendations they support.

• The **Chairman will be selected by the EC** and is eligible to vote

• Meetings will be **open to the public**, recorded and available online
Subcommittee Responsibilities

- Vet, explore, develop and identify challenges, needs, gaps and expectations related to AV policy, funding and jurisdiction.

- **Assess what other states are doing** and seek model policies.

- Provide **general public education** by informing the public of subcommittee discussions and recommendations in a transparent and accessible manner.

- Report information gathered and findings, along with recommendations to the Executive Committee.
Subcommittee Policies and Procedures

- Each subcommittee will be co-chaired by one public- and one private-sector individual
- **Meet at least quarterly**; meetings open to the public
- Establish an **odd number of voting members** for the purpose of advancing majority recommendations
- **May decide not to vote** on recommendations, with recommendations advancing to EC with explanation for not voting
- Provide recommendations to EC using **standard form** for consistency
Executive Committee Meeting Summary
Executive Committee Meeting #1

June 27, 2018

• Discussed organization and purpose of the work group

• Reviewed and approved modifications to Work Group policies and procedures

• Informational Presentations
  » Guidance on safe testing and deployment of AVs (American Association of Motor Vehicle Administrators)
  » Overview of national trends and developments of AVs (WSP USA)

• Elected Darrin Grondel as chair of the Executive Committee
• Presentations from each subcommittee on their initial activities and recommendations

• Presentation from the University of Washington Law School on recommendations for regulatory action

• Presentation and discussion on proposed two-year action plan for the Work Group:
  » Goal and vision setting exercise
  » AV deployment assessment exercise
  » Communications and outreach
  » Continued Work Group facilitation support

• Discussed motion to expand Executive Committee membership to include private-sector interests
Executive Committee Input and Actions

• Two recommendations received from Safety Subcommittee (discussed later in presentation)

• General acceptance of UW law school suggestions for action (but no formal recommendations to the WSTC yet)

• Input/decisions in response to two-year work group plan:
  » Desire to advance subcommittee activities further before engaging in suggested policy planning process
  » Communications plan is desirable to “speak with one voice” in providing public information on work group activities

• Action on proposal to expand EC membership to include private-sector interests
  » Proposal tabled until mid-2019 meeting
Subcommittee Meeting Summary
Licensing Subcommittee

3 meetings held to date

• Discussed membership and appointed co-chair
• Reviewed group charter
• Discussed subjects group will examine and how recommendations will be made
• Presentation from University of Washington School of Law regarding testing and pilot program certifications
• Presentation from Peloton on platooning technologies
• Presentation on Federal considerations related to AV in freight
• Discussion on 2019 work plan and roadmap
Licensing Subcommittee

3 meetings held to date

- Topics discussed for consideration:
  - Driver training
  - Pilot certification
  - Coordinating activities with national work groups
  - Consistency with other states
  - Use of common terms
  - Impacts of AV on commercial industry
  - Proof of inspection/on-going maintenance
  - Demarcation of AVs on roadways
  - Licensing changes for limo/taxi/for-hire drivers
  - Licensing for software

- AV testing requirements have not yet been addressed
Liability Subcommittee

2 meetings to date

• Reviewed goals of the group
• Selected subcommittee co-chairs
• Reviewed decision-making process for recommendations
• Established list of goals and issues to focus on in the short, medium and long-term
• Conducted review of information from other states and Federal activities related to liability
• Identified next steps for 2019
Infrastructure and Systems Subcommittee

1 meeting to date (next meeting scheduled for 12/14)

• Surveyed working members and interested parties on priorities related to AV
• Discussed the role of the subcommittee
• Considered membership and additional stakeholders needed to fully inform the group
• Presented an overview of Cooperative Automated Transportation (CAT) and activities in Washington
• Held open discussion on developing a 2019 action plan
• Will distribute draft action plan for group discussion as part of 12/14 meeting
Infrastructure and Systems Subcommittee

1 meeting to date (next meeting scheduled for 12/14)
**Infrastructure and Systems Subcommittee**

1 meeting to date (next meeting scheduled for 12/14)

### Near Term Pilots & Deployments Survey

<table>
<thead>
<tr>
<th>Item</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First mile/last mile connections to transit</td>
<td>27</td>
</tr>
<tr>
<td>Connected traffic signal timing information</td>
<td>18</td>
</tr>
<tr>
<td>SAE Level 1 Driver Assisted Truck Platooning</td>
<td>17</td>
</tr>
<tr>
<td>On-demand AV vanpools</td>
<td>16</td>
</tr>
<tr>
<td>Low-speed AV shuttles</td>
<td>15</td>
</tr>
<tr>
<td>Expanding the electric vehicle charging network</td>
<td>11</td>
</tr>
<tr>
<td>Open data/data sharing</td>
<td>9</td>
</tr>
<tr>
<td>Automated bus braking and pedestrian detection</td>
<td>8</td>
</tr>
<tr>
<td>Traffic and signal priority for pedestrians and bicyclists</td>
<td>8</td>
</tr>
<tr>
<td>Autonomous roadway construction zone safety trucks</td>
<td>8</td>
</tr>
<tr>
<td>Roadway machine readable signing and striping</td>
<td>8</td>
</tr>
<tr>
<td>HOV occupancy detection</td>
<td>7</td>
</tr>
<tr>
<td>Other near-term implementation ideas?</td>
<td>4</td>
</tr>
<tr>
<td>Bikeshare and E-Bikes</td>
<td>3</td>
</tr>
<tr>
<td>Use of small unmanned aerial systems</td>
<td>3</td>
</tr>
<tr>
<td>Use of drones for vegetation management</td>
<td>0</td>
</tr>
<tr>
<td>Roadway winter operations info through the cloud</td>
<td>0</td>
</tr>
</tbody>
</table>
Safety Subcommittee

3 meetings held to date

• Presented overview of AV technology
• Discussed purpose of subcommittee and prioritization of topic areas to be explored
• Focus on three topic areas:
  » Accessing and understanding the “black box”
  » Educating the public
  » Health impact assessments
• Developed recommendations on two of the three topic areas to advance to the EC (education and health impact assessments)
Technology Subcommittee

3 meetings to date

• Discussed scope and role of the subcommittee
• Presented background information on data and privacy
• Identified priority areas of focus around privacy standards
• Heard presentation from the Infrastructure and Systems Subcommittee
• Discussion on data and security recommendations
• Presentation on AV trucks and freight platooning
• Presentation from ReachNow on car sharing
• Presentations from various technology providers (EchoDyne, Actelis)
• Discussed data principles for AV
Recommendations and Actions
Safety Subcommittee Recommendations

• Recommendation #1 - Educate the Public
  » Understand the public’s current perception and beliefs about AV’s. In consultation with private sector stakeholders, educate the public about the potential safety benefits and risks of safety technology associated with automated vehicles. Educate the public about AV testing in Washington. Use demonstration projects to familiarize the public technology.
    – $200,000 be provided in SFY2020, to gather existing information, research and document the current state of public knowledge surrounding automated vehicle technology and beliefs, develop platforms and partnerships, and a comprehensive strategic communications plan.
    – $1,000,000 be provided in SFY2021, to implement the strategic communication plan.
    – $200,000 be provided in SFY2022, to evaluate the strategic communications plan and provide recommendations for a long-term framework for public education and outreach related to AVS.
Safety Subcommittee Recommendations

• Recommendation #2 - Health Impact Assessment (HIA)
  » Conduct a modified Health Impact Assessment, with emphasis on identifying disproportionate impacts on disadvantaged populations.
  » $750,000 in the SFY2019 – 2021 biennium to complete a modified Health Impact Assessment.
UW Law School Recommendations for Regulatory Action

• Preempt local regulation to prevent unnecessary roadblocks to deployment of autonomous vehicles
• Update Definitions: revise the RCW to accommodate new technologies.
• Self Certification: promote innovation & freedom to develop new technologies.
• Enhanced Infrastructure: encourage local, state, and federal improvements in road systems and technologies to support A/Vs.
• Control Liability: impose liability on A/V systems and manufacturers while autonomous systems are in operation.
• Update current data security laws: “lead the pack” in securing driver and user data.
EC Actions on Recommendations

• EC accepted Safety Subcommittee and UW recommendations
  » No formal action/vote
  » Advanced to WSTC (as with all recommendations procedurally)
  » Noted that while these recommendations may warrant future action, it may be too early in the Work Group process to support them at this time

• No other formal subcommittee recommendations were made to date
DISCUSSION
2019/21 AV Work Group Recommended Work Plan
Communications and Outreach - Purpose

• Educate the public and key stakeholder groups regarding AV information
• Convey information about the Work Group’s efforts and AV-related initiatives happening within the state
• Communicate opportunities for stakeholders to engage in dialogue around AV and related technologies
• Gain feedback and input on stakeholder opinion and support/concerns regarding AV and related technologies
Communications and Outreach – ACTION PLAN

Develop and implement a formal Work Group communications plan which includes the following:

• Develop a stand-alone website for the AV Work Group effort
• Develop print materials
• Conduct outreach events, focus groups, public/stakeholder group polling, and identify opportunities for partnership with established groups
• Set goals/expectations for communications during next biennium
## Communications and Outreach – Funding Request

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop Communications Plan &amp; Strategy</td>
<td>$20,000</td>
</tr>
<tr>
<td>Develop Print/Digital Materials</td>
<td>$60,000</td>
</tr>
<tr>
<td>Coordinate Media Activities</td>
<td>$40,000</td>
</tr>
<tr>
<td>Develop &amp; Maintain Website</td>
<td>$70,000</td>
</tr>
<tr>
<td><strong>TOTAL FUNDING REQUEST</strong></td>
<td><strong>$190,000</strong></td>
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Work Group Support and Facilitation

• Continue support of Work Group operation and execution including:
  » Support development of *goals and vision/guiding principles*
  » Support **on-going work group activities**, including:
    – Work Group meeting planning and facilitation
    – Establish and do periodic updates of five-year roadmap
    – Subcommittee reporting support
    – Work Group website maintenance
    – Annual reporting support
    – Development of 2021-2023 two-year work plan
## Work Group Facilitation – Existing Funding Allocation

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop Guiding Principles, Goals and Vision</td>
<td>$20,000</td>
</tr>
<tr>
<td>Support Executive Committee Meetings</td>
<td>$110,000</td>
</tr>
<tr>
<td>Support Subcommittee Meetings</td>
<td>$50,000</td>
</tr>
<tr>
<td>Legal/Policy Research</td>
<td>$40,000</td>
</tr>
<tr>
<td>Two-Year Work Plan</td>
<td>$30,000</td>
</tr>
<tr>
<td>Annual Reporting</td>
<td>$50,000</td>
</tr>
<tr>
<td><strong>TOTAL FUNDING REQUEST</strong></td>
<td><strong>$300,000</strong></td>
</tr>
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*Note: funding for Work Group facilitation is included in WSTC’s base budget; no additional funding is required*
DISCUSSION
Next Steps and Closing Remarks