WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State Transportation Commission

AV Work Group Executive Committee Meeting

June 28, 2019

Washington State Transportation Commission

Agenda

WASHINGTON STATE AUTONOMOUS VEHICLE WORK GROUP

TIME	DESCRIPTION	
10:00	**Welcome & Introductions**	**Darrin Grondel**, Chair, AV Work Group Executive Committee
10:10	**Work Group 2019/21 Budget, Work Plan & Annual Meeting Schedule** *Review the enacted budget for the biennium and the work plan. Discuss annual meeting frequency going forward.*	**Reema Griffith**, Executive Director, WSTC **Ara Swanson**, Senior Associate, EnviroIssues **Markell Moffett**, Transportation Operations Strategy Consultant, WSP USA
10:30	**How an Idea Becomes a Law – Process & Roles** *Review the process, roles and expectations for each level of the AV Work Group structure*	**Commissioner Jim Restucci**, Vice-Chair, AV Work Group Executive Committee **Reema Griffith**, Executive Director, WSTC
10:50	**AV Impacts on the Disabled Community** *A presentation will be made on the considerations and potential impacts of AV's on the disabled community*	**Anna Zivarts**, Program Director, Disability Rights Washington **Clark Matthews**, Disability Rights Washington **Vanessa Link**, Disability Rights Washington **Marci Carpenter**, Wash. State President, National Federation of the Blind
11:45	**LUNCH BREAK**	
12:00	**AV Subcommittee Updates & Recommendations** – **ACTION** *Each subcommittee will provide an update on their work to date and next steps. Subcommittees who have recommendations will also present those for consideration, discussion and possible action.*	**Debi Besser & Kenton Brine**, Safety Subcommittee **Roger Millar & Mike Ennis**, Infrastructure & Systems Subcommittee **Will Saunders**, System Technology & Data Security Subcommittee **Lonnie Johns-Brown**, Liability Subcommittee **Stephanie Sams**, Licensing Subcommittee
1:50	**Closing Remarks** ***Next Meeting*:** • **Sept. 25** – Paccar Tour, Burlington • **Sept. 26** – AV Work Group Executive Committee, Sea Tac Conf. Center	**Darrin Grondel**, Chair, AV Work Group Executive Committee
2:00	**ADJOURN**	

AV Work Group 2019/21 Biennium

Budget, Work Plan & Annual Meeting Schedule

WASHINGTON STATE AUTONOMOUS VEHICLE WORK GROUP

Washington State Transportation Commission

2019/21 Work Plan
Budget Allocation

Facilitation, Research & Reporting	**$300,000**
Communications	**$100,000**
TOTAL APPROVED BUDGET	**$400,000**

2019/21 Work Plan
Facilitation

Facilitate and plan Work Group meetings & Support Subcommittee meetings

Legal and Policy Research for comparable state, federal and international legislation and research related to AVs

Annual Report support and development

2019/21 Work Plan
Communications

Website to support education on Work Group efforts and AV-related initiatives happening within the state

Key messages and talking points for stakeholders on AVs and Work Group efforts

Fact sheet on autonomous vehicles and AV Work Group

2019/21 Work Plan
Annual Meeting Frequency

Frequency to capture important issues and recommendations without creating meeting fatigue

Duration to accommodate local and national perspectives, work sessions and subcommittee updates

Meeting During Session to continue momentum while remaining representative

How an Idea Becomes a Law *Process & Roles*

WASHINGTON STATE AUTONOMOUS VEHICLE WORK GROUP

Washington State Transportation Commission

Overarching Purpose of the AV Work Group Process

04 Bottoms up process where ideas start organically and get vetted multiple times, in multiple public forums.

03

02 When they arrive at the Legislature's doorstep, support is established and possible issues are known and/or resolved.

01

04

03

02

01

Level 01 –

Subcommittees (SC)

- Where ideas start and are developed
- Participation open to all
- Ideas are vetted - pros and cons identified
- Supported ideas sent to the Executive Committee
- Lead agency and stakeholders advocate for recommendations throughout process

04
03
02
01

Level 02 –

Executive Committee

- Comprised of public sector leaders and private sector experts
- Public forum for education and information sharing
- Reviews SC recommendations, applying political, public, and private sector perspectives
- Determines recommendations to endorse via a vote
- Reports outcome for all recommendations to the Commission

04

03

02

01

Level 03 –

Transportation Commission

- Considers all recommendations & assesses vote outcomes
- Determines recommendations to endorse via a vote
- Reports outcome for all recommendations to the Governor and Legislature
- Works in partnership with lead state agencies & stakeholders to advocate for recommendations including:
  - Briefing key legislators
  - Securing bill sponsors
  - Working to secure funding

04

03

02

01

Level 04 –

Governor & Legislature

- Receives report from Transportation Commission & Work Group
- Schedules hearings for presentation of recommendations from the Commission & Work Group
- Schedules bills for hearing
- Considers funding needs via the budget process
- Enacts laws and funds programs to achieve current law intent

04 – Governor & Legislature

03 – Transportation Commission

02 – Executive Committee

01 – Subcommittees (SC)

AV Impacts on the Disabled Community

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State
Transportation Commission

Rooted in Rights
Disability Rights Washington

Disability Rights Washington

Disability Rights Washington is a legal advocacy nonprofit that provides free legal services for people with disabilities.

DRW is a member organization of the National Disability Rights Network and serves as the designated Protection and Advocacy agency for Washington state.

Rooted in Rights is a video and storytelling advocacy program of DRW led by people with disabilities.

“Nothing about us without us.”

Our Transportation Advocacy

- Automated Traffic enforcement cameras - #DontBlockTheBox
- Scooter and Bike share access issues
- Sidewalk maintenance and snow/ice removal
- Curb ramps *(Reynoldson)*
- Pedestrian access through construction

We all need to get places

- An estimated 25.5 million Americans have travel-limiting disabilities, and half of this population (13.4 million) is age 18 to 64. (ODEP)
- In 2017, working age Americans with disabilities had an unemployment rate that was more than double the rate for people without disabilities, and a labor force participation rate that was less than half the rate of their able-bodied peers. (ODEP)

- Of those age 18-64 with a travel-limiting disability, only about one fifth report working full-time or part-time. This rate links directly to transportation barriers; we experience significant disparities in vehicle ownership, trip frequency, and socio-economic status. (ODEP)

- Access to mobility for disabled travelers can be vastly different depending on our income, race, gender, religion, immigration & LGBTQ+ status, rural vs urban settings.

Washington State

- In Washington State, 12.8 percent of the population has a disability that impacts our ability to access transportation.

Our History: Campaigns for Lifts on Buses

Transportation Industry Arguments

- Access was too expensive or impossible
- Paratransit / segregated service cheaper than integration

Lessons

- Accessibility is possible if it’s a priority
- Accessibility and integration are cheaper at the outset

Current Transit System Has Gaps & Barriers

- Rural & suburban areas may not have access to transit or paratransit.
- Passenger vehicle accessibility extremely limited & expensive.
- Rideshare vehicles are not wheelchair accessible and wait times for accessible cabs are not equivalent.
- Access is often an afterthought for new modes & services - like bike and scooter share.

The Challenges of Ride Share

- Many more wheelchair accessible vehicles required for unmet need.
- Denial of service for guide dog & wheelchair users continues.
- Ride-hailing operators denying ADA obligations in courts (NY, DC, LA, MS).


via
TO TRANSIT


King County Metro
@kcmetrobus
Hi Anna, Sorry for the delay in getting back to you with your Via to Transit question. We received some details from the Project Manager. We are certainly monitoring wait times for wheelchair accessible vehicle (WAV) trips versus non-WAV trips with a goal to have these be as reasonably comparable as possible. In the first month of service, we've had six completed WAV trips with an average wait time of 18 minutes. Our non-WAV rides are currently averaging wait times of 7.5 minutes. We are continuing to monitor data on all trips. Thanks again for your message.
May 30

The Potential of AVs

AVs have the potential to drastically improve access for people with disabilities.

However, the promise and safety of AVs will only be realized if the vehicles and the surrounding infrastructure are fully accessible, and the safety elements **consider the needs of people with disabilities.**

Photo Credit: AP

Safety

- Prioritize investing in safe and accessible infrastructure - curb ramps, accessible pedestrian signals, complete streets.

- Collect disabled passenger and disabled pedestrian crash data to identify needed vehicle and infrastructure improvements and ensure safety.

As software is developed to make decisions about harm in unavoidable collisions, the lives of disabled passengers and pedestrians must not be valued less.

Require full accessibility for all types of common and public use AVs.

Human Machine Interface Accessibility

All human machine interface (HMI) systems on AVs must be fully accessible to people with disabilities, including people with sensory, cognitive, and physical disabilities.

- Will Blind and low vision people be able to use the interface?
- Will d/Deaf and hard of hearing people?
- Will people with intellectual disabilities?

Human Machine Interface Accessibility

- Accessible Apps to hail a car
- Both print/visual (adjustable size/contrast by user) and audio, Voice-controlled systems (e.g, change route, unlock doors, lower/raise windows, etc.)
- Where's my ride, including finding it when it arrives (how will the car know you are blind? Could it detect a dog, or a cane?)
- Micro-navigation needs for Blind riders -- how will you know the car has arrived? Minimally complex directions and control identifiers
- Compatible with portable devices (phones, tablets, 'smart-glasses') with customized assistive technology, such as paperless Braille display for deaf/blind users
- Accessible operating surfaces (within reach; tactile cues, etc.)

Human Machine Interface Accessibility (2)

- User enabled remote destination selection and trip monitoring with video and GPS for users with intellectual disabilities
- Alternate (accessible) drop off points for access (eg, near curb ramps)
- Provides information (visual and audio) about environment surrounding the vehicle
  - Location, route, certain landmarks (e.g., Bay Bridge Toll Plaza), etc.
  - Weather, road conditions
  - Accidents, incidents (how will car communicate in an emergency?)
  - Deviations from route or why the ride may be stopping
- Orients user to drop off point including access features, directions to destination with orientation landmarks, construction, etc.

Wheelchair Accessibility

Lifts, ramps and wheelchair securement must be available on common use and public transit AVs.

- Hardware Compatible with existing hand controls (Levels 2 and 3)
- Space to stow wheelchair if transferring
- Lower floors to accommodate wheelchairs (don't put tech under the floor)
- Lift/ramp and securement system, or support for aftermarket modification
- Accessible securement for non-disabled people with limited upper body mobility, e.g., seat belts
  Accessible door handles, storage spaces (opening and closing

Safety for Disabled Passengers

AV standards should ensure adequate safety and crashworthiness for all people with disabilities, including wheelchair users who remain in their wheelchairs in the vehicle. A redundant accessible communications system to report emergencies, and ensure timely response and safe extraction from the vehicle, should be required.

AV Licensing and Insurance

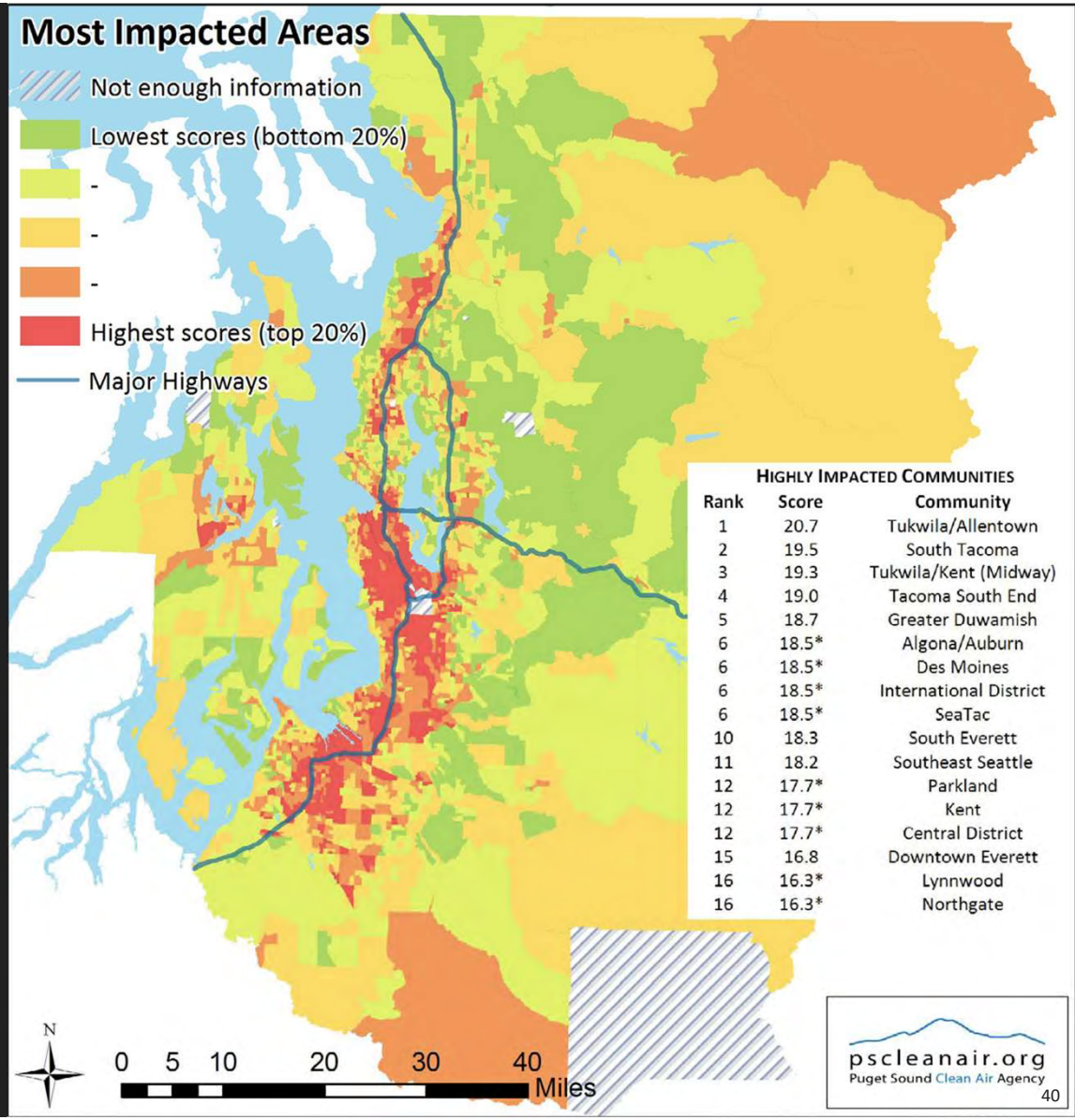
There is currently a patchwork of proposed and enacted policies for the testing of autonomous vehicles – some requiring operators of Level 4 or 5 AVs to hold driver's licenses. Many individuals with disabilities who are unable to obtain a driver's license, or an unrestricted license, in order to operate a traditional motor vehicle would be able to safely operate a Level 4 or 5 AV. **Regulation of AVs should consider the needs of people with disabilities and not unnecessarily restrict their use through licensing or insurance requirements.**

Data Privacy

Protect passenger privacy by ensuring passengers' health and disability status and locations visited is not shared, or used for commercial or tracking purposes, without permission of the individual.

Health Equity Impacts

- AVs may lead to an increase in vehicle miles traveled.
- Air quality is a major health issue for many disabled people.
- Poor people and people of color are more likely to live close to busy roads.
- AVs use a lot of power, which must be generated somewhere.



HIGHLY IMPACTED COMMUNITIES

Rank	Score	Community
1	20.7	Tukwila/Allentown
2	19.5	South Tacoma
3	19.3	Tukwila/Kent (Midway)
4	19.0	Tacoma South End
5	18.7	Greater Duwamish
6	18.5*	Algona/Auburn
6	18.5*	Des Moines
6	18.5*	International District
6	18.5*	SeaTac
10	18.3	South Everett
11	18.2	Southeast Seattle
12	17.7*	Parkland
12	17.7*	Kent
12	17.7*	Central District
15	16.8	Downtown Everett
16	16.3*	Lynnwood
16	16.3*	Northgate

Costs

- In 2016, **26% of people with disabilities in the U.S. were living below the poverty line.**

- People with disabilities in the U.S. are 2x as likely as non-disabled people to live in poverty.

AVs Should Not Replace Investing in Transit

- Transit is and will continue to be the key for moving people sustainably and affordably.

- To protect our climate future, we must prioritize in investing and supporting accessible, convenient, reliable transit that serves our communities in an equitable manner - if AVs are owned and operated by private companies, our legal obligations to accessible transit are unlikely to be met.

Include Disabled People

- Provide a seat at the table in for disabled and marginalized community members, and respect and incentivise our participation in the decision-making process.

- Require that people with disabilities are part of the design and testing of new technologies in order to ensure the accessibility and usability of the technology.

National Organizations

- Disability Rights Education and Defence Fund
  - AV Fully Accessible Checklist
- Consortium for Citizens with Disabilities
- Alliance of Automobile Manufacturers'
  - 3-part workshop series
- National Federation of the Blind

National Federation of the Blind

Vehicle Location System:

The blind user needs to have equivalent ease of use during the pickup process as the sighted user. The vehicle must be easily identifiable and must be able to determine where the user is waiting for it or be able to direct the user to an appropriate pickup location. Also, depending on the type of vehicle, there must be a feature to identify the orientation and point of entry. Additionally, the vehicle should give the user basic dropoff information (i.e. Is the vehicle at the curb? Is the destination ahead or behind the dropoff location? Is there a bus or bicycle lane between the vehicle and the location entrance? etc.).

National Federation of the Blind

Navigation and Maintenance Controls:

These involve programming a destination, and features to change the trip after it begins. Features are needed that allow the blind user to monitor the trip along the way, such as identifying important buildings, landmarks, streets, and other important information. The blind user needs to be told or signaled about the battery level. Also features for finding and connecting the power sources may be necessary.

National Federation of the Blind

Interior Environment Controls:

The blind user must be able to regulate the internal environment. This includes nonvisual methods to control the internal temperature, opening and closing the windows, operating the entertainment system, and moving the seats.

National Federation of the Blind

Exterior Environment Alerts:

The blind user must be provided information when the car experiences quick changes, stops, and emergencies. Examples of these situations would be heavy traffic, changes in the traffic pattern, sudden obstacle avoidance, detours, and mechanical or equipment malfunction. The AV needs to alert and tell the blind user that one of these situations is occurring, allowing the rider to make an independent decision on what to do.

Additional Resources

- To Ride the Public's Buses, The Advocado Press
  - https://bit.ly/ToRideBuses
- USDOT Shared Mobility FAQs & Dear Colleague Letter
  - https://www.transit.dot.gov/shared-mobility
- Greenling Institute: AV Heaven or Hell?
  - https://bit.ly/GreenliningAV
- Auto Alliance Accessibility Workshop
  - https://autoalliance.org/avsaccessibility/

Additional Resources (2)

- DREDF Fully Accessible Vehicle Checklist & Comments
  - https://bit.ly/DREDFav
- Self-Driving Cars Ruderman Report & NCD Report
  - https://bit.ly/RudermanAV & https://bit.ly/NCDSelfDriving
- CCD Transportation Task Force AV Principles
  - https://bit.ly/CCDAVPrinciples
- We Will Ride Coalition
  - https://joinwewillride.org/
- VW Inclusive Mobility Initiative
  - https://inclusivemobility.com

Additional Resources (3)

- USDOL ODEP AV Listening Session Report
  - https://bit.ly/ODEPAVAccessReport
- USDOT Automated Vehicle Activities
  - https://www.transportation.gov/AV
- USDOT ADS Demonstration Grant NOFO (up to 60M)
  - https://www.transportation.gov/av/grants
- USDOT Mobility on Demand (MOD) Sandbox, IMI Grants
  - https://bit.ly/MODSandbox
- Accessible Transportation Tech. Research Initiative (ATTRI)
  - https://www.its.dot.gov/research_areas/attri/index.htm

BREAK

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State
Transportation Commission

AV Subcommittee Updates & Recommendations

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State
Transportation Commission

Safety Subcommittee

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State
Transportation Commission

SAFETY SUBCOMMITTEE

- Meeting 5-6 times/year
- Co-chairs: Kenton Brine, NWIC and Captain Dan Hall, WSP
- Approved charter March 2019
  - 18 voting members
  - 84 interested parties
  - Ability to add and remove members
- Sub-groups work on topics outside of regular meetings

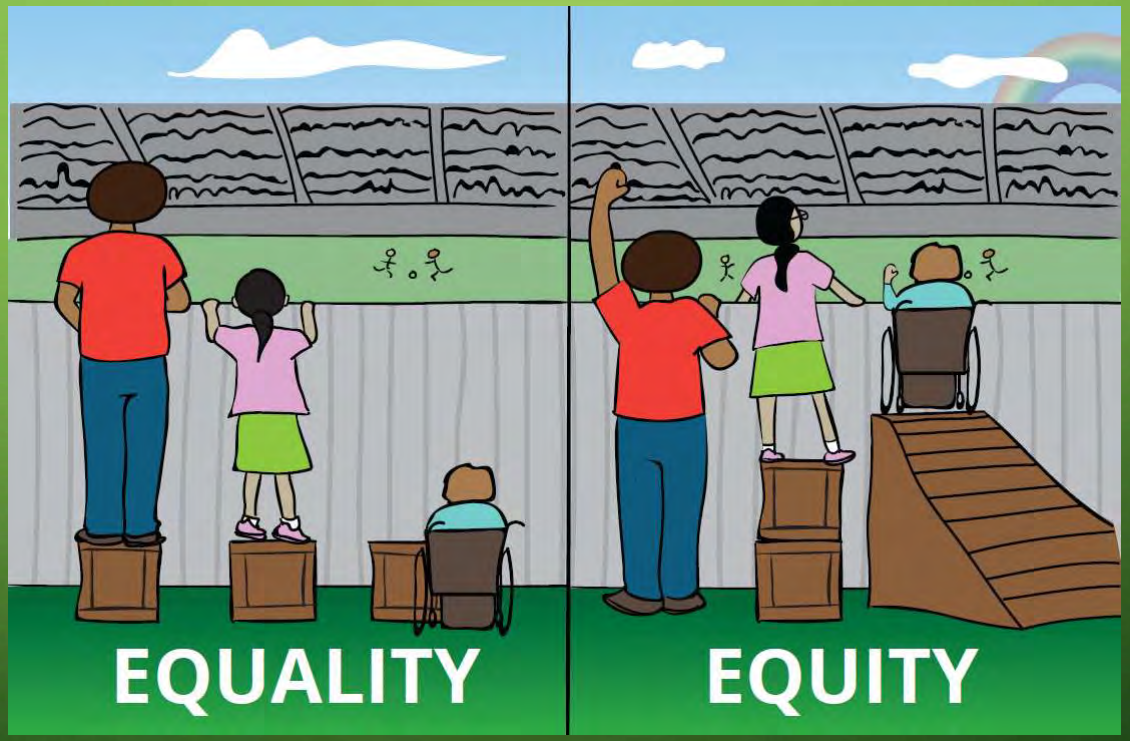
TOPICS

- Health and equity impacts
- Educating the public
- Crash data needs and access

HEALTH AND EQUITY IMPACTS: HEALTH

- Decrease in physical activity
- Air pollution
- Urban planning impacts

HEALTH AND EQUITY IMPACTS: EQUITY



HEALTH AND EQUITY SUBCOMMITTEE RECOMMENDATION

- Access to AV benefits
- Air quality
- Social and mental well-being
- Physical activity
- Urban design impacts

PUBLIC EDUCATION: NOW AND LATER

1) People are unsure of the capability of current advanced driver assistance systems (ADAS) in their cars.
   - Turning off
   - Over-estimating

2) Longer term – autonomous vehicles
   - Concerns of cybersecurity, interactions
   - Won't be perfect

PUBLIC EDUCATION: EXPOSURE

Photo Credit: WSDOT

HONDA

TOYOTA

PUBLIC EDUCATION: EXISTING RESOURCES

MyCarDoesWhat.org
Know More. Drive Safer.

NHTSA
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

PAVE
PARTNERS FOR AUTOMATED VEHICLE EDUCATION

DATA NEEDS AND ACCESS

- Coordinate across multiple subcommittees and agencies
- Safety analysis – now and in the future
- State's role vs. federal standards?

Questions?

Thank you!

Kenton Brine, Northwest Insurance Council, kenton.brine@nwinsurance.org

Debi Besser, WA Traffic Safety Commission, dbesser@wtsc.wa.gov

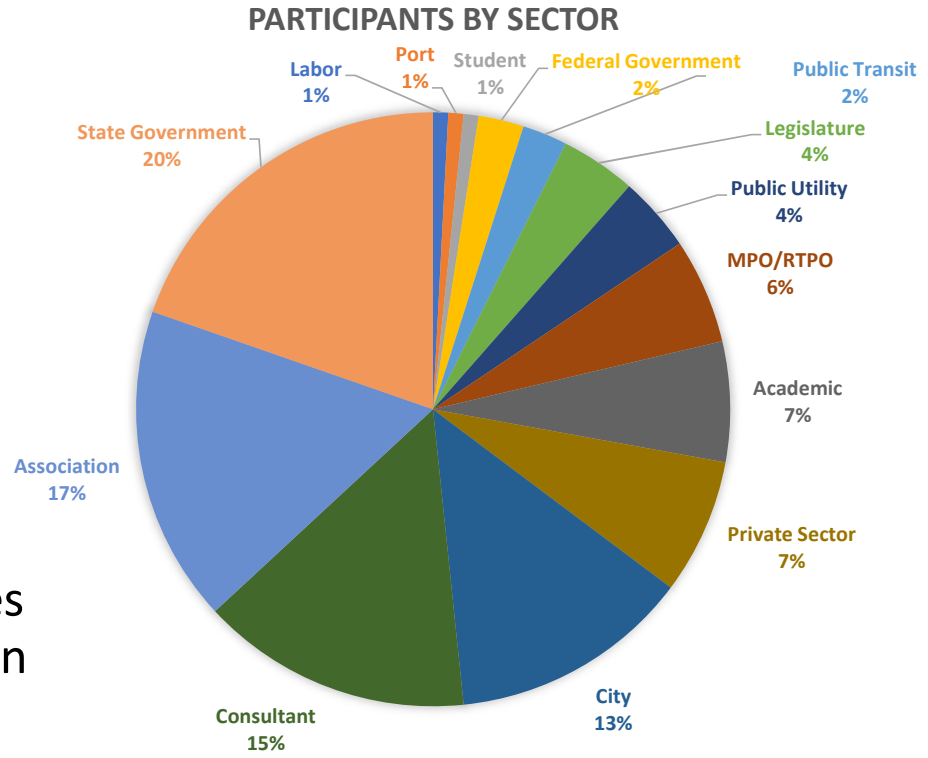
Infrastructure & Systems Subcommittee

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State
Transportation Commission

Subcommittee Structure and Membership

- Subcommittee Co-Chairs:
  - » Roger Millar, Secretary, WSDOT
  - » Michael Ennis, Government Affairs Director, AWB
- Membership
  - » 74 working members (Up from 56, Oct. 2018)
  - » 48 interested parties
  - » Open membership structure
  - » Following the Operating Policies & Procedures established by the Transportation Commission through the Feb 27th, 2019 memo



Meetings to Date / Future Meetings Planned

- Meeting #1, October 2, 2018
- Meeting #2, February 8, 2018
- Meeting #3, April 26, 2019
- Meeting #4, June 14, 2019
- Planned Meeting #5, August 12, 2019
- Planned Meeting #6, September 9, 2019

All meeting materials & minutes available online

2019 Action Plan

3 Activities

11 Actions

4 Target Outcomes

Deliverable Date

September, 2019

- **Activity #1:** Overview
  - » Develop policy goals, strategies and illustrative actions based on local, regional and national "best practice" policy examples. The goals, strategies and sample actions should be measureable.
- **5 Actions:**

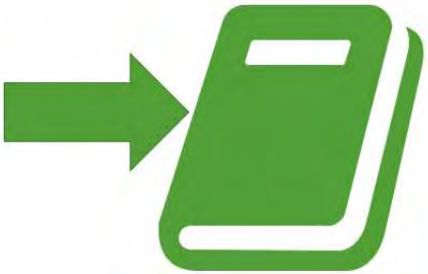
- **1 Target Outcome:**


Washington State Department of Transportation

Cooperative Automated Transportation (CAT) Draft Policy Framework

DRAFT

Working Document
November 26, 2018



WA State
Cooperative Automated Transportation
Policy Framework
(Infrastructure & Systems)

2019 Action Plan

3 Activities

11 Actions

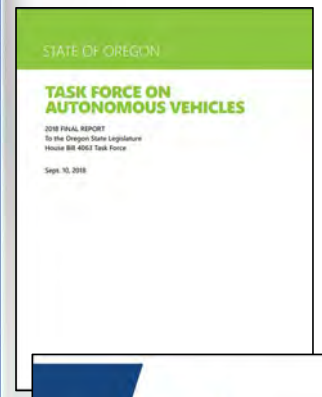
4 Target Outcomes

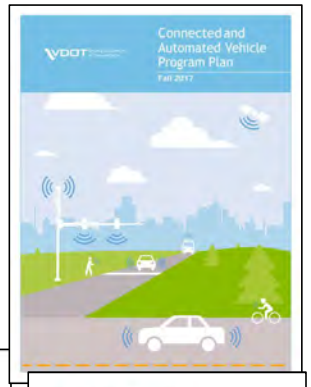
Deliverable Date

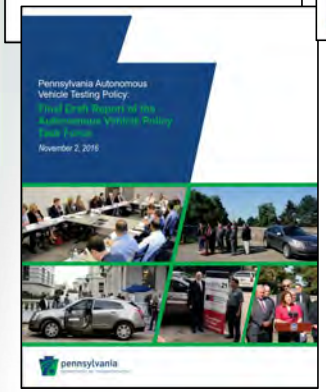
September, 2019

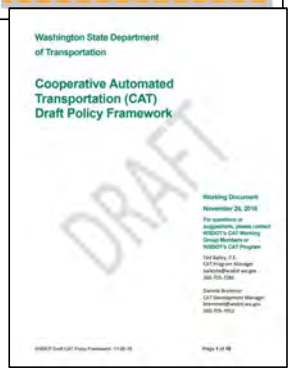
- **Activity #1:** Continued
- **Actions 1 & 2:**

  Gather and Screen Documents









Agency / Organization	Content	Summary of Content
Colorado	CAT Program	Includes mission, purpose, issues, objectives, priorities, and risks associated with the Connected and Autonomous Technology in Colorado.
Oregon	State of Oregon Task Force on Automated Vehicles	Describes: • Overview of automated vehicle technology and considerations that prompted the creation of the task force • Task force membership, structure, and process • Elements of a permitting process for testing highly automated vehicles in the state and additional policy recommendations in each of the subcommittee areas • Topics for further consideration identified by the task force
Washington State DOT (WSDOT)	Cooperative Automated Transportation (CAT) Policy Framework	To achieve this vision, this policy framework sets shared expectations to guide and monitor technology implementation. The framework is intended to spur innovation and investment while improving safety, mobility, and transportation system efficiency.

2019 Action Plan

3 Activities

11 Actions

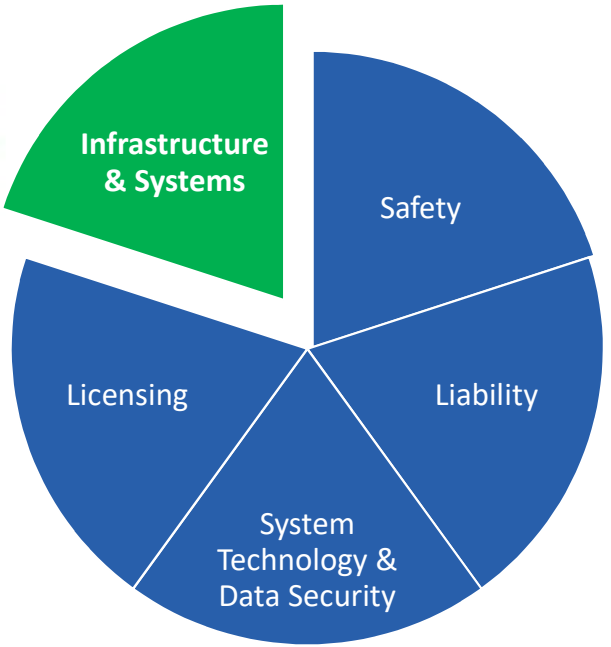
4 Target Outcomes

Deliverable Date

September, 2019

- **Activity #1:** Continued
- The **Infrastructure and Systems** focused "WA State Cooperative Automated Transportation Policy Framework" being developed through Activity #1 could be integrated with the policy frameworks/recommendations developed by each subcommittee.

WA State
Cooperative Automated Transportation
Policy Framework
(**Infrastructure & Systems**)



2019 Action Plan

3 Activities

11 Actions

4 Target Outcomes

Deliverable Date

September, 2019

- **Activity #2:**
  - » Develop project selection criteria and discuss potential funding approaches to enable the selection of near-term pilot deployment proposals and projects.
- **4 Actions:**
  - » Evaluate and build upon the Pilot Evaluation Scorecard criteria developed by Seattle Department of Transportation, SoundTransit, King County METRO
  - » Evaluate grant criteria from existing Federal, State and WSDOT grant programs
  - » Incorporate recommendations from Activity #1
  - » Assess the feasibility of the new criteria against deployment scenario priorities identified by the subcommittee
- **1 Target Outcome**
  - » Develop new project selection criteria recommendations for consideration by existing grant programs to enable near-term pilot deployments.

2019 Action Plan

3 Activities

11 Actions

4 Target Outcomes

Deliverable Dates
Action 1, September, 2019
Action 2, December, 2019

- **Activity #3:**
  - » Partnership and Collaboration discussions with the private sector companies who are self-certified to test autonomous vehicles in WA State via the Department of Licensing process as of June 1, 2019.

Self-certified companies
- Drivent LLC
- Dooblai LLC
- Galilei
- May Mobility
- Navya Inc
- NVIDIA Corporation
- PACCAR Inc.
- Peloton Technology, Inc.
- Simple Solutions
- TORC Robotics
- Waymo LLC

- **Action 1:**
  - » Engage in a collaborate discussions: Contact all companies who are self-certified to test autonomous vehicles in WA State via the Department of Licensing process.
  - » Knowledge gained will inform Activities #1 and #2

- **Target Outcome Action 1:** Summary of information gathered

---

- **Action 2:**
  - » Compile a Year-end report on SAE Level 1 and 2 Driver Assistive Truck Platooning Testing and Pilot Deployment Activity in WA during 2019

- **Target Outcome Action 2:** Produce a year-end 2019 report

Related National Activity / Discussion
Infrastructure Owner Operator (IOO) Guiding Principles

- **Infrastructure Owner Operator Guiding Principles for Connected Infrastructure supporting Cooperative Automated Transportation**
  - Lead partners: Institute of Transportation Engineers (ITE),
  - Intelligent Transportation Society of America (ITS America), and
  - American Association of State Highway Transportation Officials (AASHTO)

Related National Activity / Discussion
Infrastructure Owner Operator (IOO) Guiding Principles

5 Guiding Principles

1. **Automation:** Support increased vehicle automation to improve traveler safety, mobility, equity, and efficiency.
2. **Data:** Achieve a connected vehicle ecosystem that enables reliable, secure V2I data exchanges in order to support cooperative automated transportation.
3. **Telecommunications:** Protect and utilize the 5.9 Gigahertz (GHz) spectrum designated for "*operations related to the improvement of traffic flow, traffic safety and other intelligent transportation service applications" (FCC)*
4. **Operations:** Develop CAT strategies that enhance existing transportation system operational capabilities.
5. **Collaborations:** Collaborate and communicate with OEMs and mobility service providers in the planning, testing, and demonstrations of CAT applications to support eventual interoperability and to achieve positive impacts on safety, mobility, and efficiency.

Related National Activity / Discussion
Mobility on Demand Alliance (MOD)

Mobility on Demand Alliance

The Intelligent Transportation Society of America (ITS America) created the Mobility on Demand (MOD) Alliance to help determine what the future of mobility should look like, striving for a world that is safer, greener and smarter. The MOD Alliance brings public, private, and academic sector stakeholders together to promote the benefits of MOD and address obstacles hindering its development.

www.modalliance.org

System Technology & Data Security Subcommittee

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State
Transportation Commission

Principles for AV Privacy & Data Security

System Technology & Data Security Subcommittee

Co-Chairs:

Will Saunders (OPDP), Michael Schutzler (WTIA)

This presentation: Box.com

Subcommittee Co-chairs

Michael Schutzler

Washington Technology Industry Association (WTIA)

1721 8th Ave N
Seattle, WA 98109
206.448.3033

Will Saunders

Office of Privacy and Data Protection (OPDP)

1500 Jefferson Street SE

Olympia, WA 98504

360.407.8693

Background

4 meetings to date

1st recommendation

Membership includes:

OCIO, WTIA, WSTC, Verizon, Seattle, Sightline Institute, UW, WSDOT, Boeing, Internet Association, ReachNow, PNNL, etc.

System Technology & Data Security Subcommittee

The System Technology & Data Security Subcommittee is being led by the State Office of the Chief Information Officer (OCIO). The Subcommittee will generally focus on the following areas:

- Data & information management
- Cyber security
- Privacy protection

Meeting information and agendas for the subcommittee will be posted on this page.

OCIO Staff Contact:
Will Saunders: will.saunders@ocio.wa.gov

For information on the AV Work Group Executive Committee meetings and presentations, please visit their page.

2019 Meetings

Meeting #5:

DATE: July 1, 2019

TIME: 2:00 PM - 3:00 PM

LOCATION: Skype Meeting

Agenda:

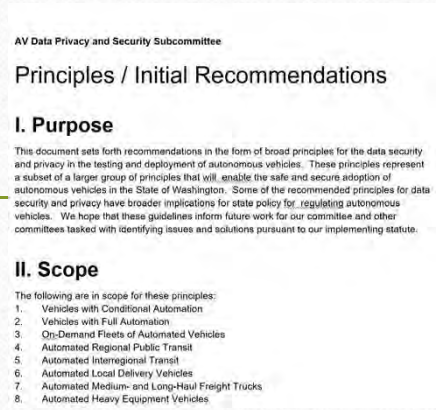
- What would transparency about AV testing look like?
  - Data standards - what data?
  - Who would publish?
- Report from executive committee

For Decision Today:

- Adopt and Publish the recommendation of the System Technology & Data Security Subcommittee,
- Consisting of:
  - A set of principles for AV Privacy and Data Security
  - An initial data standard for transparent reporting of AV testing projects

The Principles

Please see printed or posted document



AV Data Privacy and Security Subcommittee

Principles / Initial Recommendations

I. Purpose

This document sets forth recommendations in the form of broad principles for the data security and privacy in the testing and deployment of autonomous vehicles. These principles represent a subset of a larger group of principles that will enable the safe and secure adoption of autonomous vehicles in the State of Washington. Some of the recommended principles for data security and privacy have broader implications for state policy for regulating autonomous vehicles. We hope that these guidelines inform future work for our committee and other committees tasked with identifying issues and solutions pursuant to our implementing statute.

II. Scope

The following are in scope for these principles:

1. Vehicles with Conditional Automation
2. Vehicles with Full Automation
3. On-Demand Fleets of Automated Vehicles
4. Automated Regional Public Transit
5. Automated Interregional Transit
6. Automated Local Delivery Vehicles
7. Automated Medium- and Long-Haul Freight Trucks
8. Automated Heavy Equipment Vehicles

Transparency

- Testing and deployment of autonomous vehicles should be conducted in a transparent manner to the extent reasonably consistent with protection of intellectual property.
- Any test or deployment conducted in Washington State should be required to provide some standard set of information to state and local agencies responsible for licensing before the start of the test or deployment.
- A reporting data standard should be developed and adopted by the Work Group.

Data Ownership

- Data generated during testing and development is the property of the vehicle developers and manufacturers, subject to privacy expectations as they pertain to identifiable people.
- Sensor data capturing vehicle surroundings, people, and events should be examined for personal information, which should be removed unless informed consent is obtained.

Consent and Use

- To the extent consumer data containing personally identifiable information is collected, it should be done with informed consent, …
- and only used only for the purpose indicated at the time of collection.
- Entities considering or conducting tests are advised to thoughtfully consider state laws on biometric identifiers and data breach.

Collection

- Data should be collected in formats that allow for utilization and portability across different platforms and systems.
- For example, data could be structured to conform to NIST or other widely accepted national standards.

Sharing

- We encourage data sharing between various participants in this nascent industry.
- Data containing personal information should be shared in an anonymized fashion.

Retention and Disposal

- Data should only be retained for time periods reasonably related to the purpose of processing and analysis.
- Contractual permitting agreements should include data retention and disposal policies that conform with legal requirements.

Access

- AV service providers should limit access to data and information to those with a need to know and in accordance with the provider's Privacy Statement and Terms of Use.
- Personal information collected should be exempt from public records disclosure due to security concerns during the testing phase.
- People involved in the testing should be afforded at least the following rights of access to data concerning themselves and their families:
  a) the right to access any personalized data relating to their AV usage
  b) the right to delete (or restrict use of) their individual AV usage data, provided, however, that a testing entity should have the right to aggregate and anonymize group data for future use
  c) the right to approve or reject the sale or rental of their PII by any entity controlling or processing data connected with the test

Security, Authentication, and Encryption

- Vehicles and systems should be tested and certified to standards useful in preventing cyber hacking, specifically with respect to data theft and vehicle take-over and/or control. Technologies capturing audio and video of participants inside vehicles should be held to the highest privacy protection standards.
- The Autonomous Vehicle Work Group should develop and maintain a library of acceptable cyber security standards believed to be in use by testing entities. See attached standards library draft for discussion.
- Personal owner data on vehicles should be encrypted. Data transferred off vehicle to other vehicles or services should be encrypted in transit.
- Any encryption used should be an accepted open-source encryption technique of sufficient robustness to be used for storing confidential information.
- Any transfer of data from or to a vehicle or updating software on a vehicle must include a robust, auditable authentication system assuring and documenting the identity and authority of the sender and receiver of the data and the entity responsible for operation of the vehicle.

Enforcement

- Monitoring and reporting requirements should be established to ensure that service providers comply with contractual obligations regarding the safe operation and secure data practices established for operation.

Harmonization

- As law and practice evolve in this area among cities, states and provinces, Washington should seek to promote harmonization of regulation.

The Standard

Revision 0.1

Proposed Data Standard – Rev 0.1 (03/2019)

Any test or deployment conducted in Washington State should publish or provide to state and local agencies responsible for licensing the following information before the test or deployment and periodically thereafter while operations continue:

ID	Field Name	Format
A	Number of vehicles involved	Integer
B	Approximate mileage travelled	Integer
C	Communities where testing or operations are happening	Comma-separated or JSON values, verifiable as City Name, GEOID or Census Designated Place (CDP)
D	Number of trips	Integer
E	Types of engine or propulsion	Comma-separated or JSON values
F	Whether the project will collect biometric or personal data as defined in state law	Boolean (True/False)
G	National, international or industry standards for privacy and data protection to which the test or deployment will conform	Comma-separated or JSON values
H	Trade dress	Image (.jpeg or .png)
I	Date of Report	MM/DD/YYYY
J	UBI of entity reporting	UBI

Questions / Discussion

Michael Schutzler

Washington Technology Industry Association (WTIA)

1721 8th Ave N
Seattle, WA 98109
206.448.3033

This presentation: Box.com

Will Saunders

Office of Privacy and Data Protection (OPDP)

1500 Jefferson Street SE

Olympia, WA 98504

360.407.8693

Liability Subcommittee

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State
Transportation Commission

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Subcommittee Voting Members:

Co-Chair: Lonnie Johns-Brown, *Office of the Insurance Commissioner*
Co-Chair: Harris Clarke, *PEMCO*
Brady Horenstein, *Administrative Office of the Courts*
Brenda Weist, *Teamsters*
Brian Hockaday, *Lyft*
Drew Wilder, *University of Washington*
Jean Leonard, *Association of Washington Business (AWB)*
Kenton Brine, *Northwest Insurance Council (NWIC)*
Logan Bahr, *Association of Washington Cities (AWC)*
Melanie Smith, *Liberty Mutual Insurance*
Melissa Crawford, *Nationwide Insurance*
Michael Transue, Global Automaker
Patrick Conner, *National Federation of Independent Business (NFIB)*
Veronica Van Slyke, *Progressive Insurance & U.S.A.A.*
Armikka Bryant, *Dolly*
Luke Simon, *General Motors*
Christian Rataj, *National Association of Mutual Insurance Companies*
Joe Kendo, *Washington State Labor Council*
Larry Shannon, *Washington State Association for Justice*

Washington State Transportation Commission

Liability Subcommittee Current Considerations

- Raising the liability coverage requirement for testing vehicles
- A verification process of the liability coverage at the self-certification stage
- How data and data access plays a role in the liability component

Raising Liability Limits for Testing

- Current liability limit for a testing vehicle:
  - $25,000 for injury to an individual
  - $50,000 for injury to two or more in a single accident
  - $10,000 for damage to property
  - Or proof of $60,000 bond, certified check, or certificate of deposit
- Discussing what is an appropriate policy limit amount
- Looking at being comparable with other states
- Should Truck Platooning have a higher liability limit
- Recommendation will be provided at September meeting

Verification of Liability Coverage

- Do we want a stronger, tighter self verification/certification process
- Do we require proof of financial responsibility through insurance/bonding/etc.
- Should Department of Licensing verify proof of insurance

Data

- Subcommittee discussing data sets to determine:
  - affordable rate setting, and
  - liability determination
- Looking to support what is collected and determine who has access
- What are the expectations to disclose data to law enforcement & insurance carriers
- The speed of legislation is going to depend on:
  - Data availability
  - Admissible data from the subcommittee
  - Law lags in technology
  - Verifying data, i.e. calibrations of equipment

Upcoming Liability Subcommittee Meeting Dates

- July 16, 2019
- August 13, 2019

Licensing Subcommittee

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State
Transportation Commission

Subcommittee Structure and Membership

- Subcommittee Co-Chairs:
  - Beau Perschbacher, Department of Licensing
  - Drew Wilder, Vicarious Liability Risk Mgt. LLC
- Membership
  - 25 voting members
  - 10 non-voting participants
  - Includes: Auto dealers and manufacturers, Tech industry representatives, Sub-agents and County auditors, Trucking, engineers, labor, and local government.

Meetings to Date

- 2018
  - » August 23 – discussed charter, subcommittee membership, co-chair and future topics
  - » October 5 – UW presentation on certification in other states followed by discussion
  - » December 7 – Presentation from Peloton and discussion on AV implications in freight
- 2019
  - » April 18 – Discussed two potential recommendations to the working committee
  - » Upcoming July 11

Recommendations

1. RCW 46.37.480 – Television Viewers

2. VIN or other identification

- Current statute could limit AV technologies
  - » Limits use of television viewers for live video of vehicles backing up only
  - » Peloton flagged as concern to deployment – platooning and other technology use real live video from multiple view points
  - » Licensing referred recommendation to Public Safety Subcommittee
  - » A Public Safety workgroup formed to discuss and present suggestions to the Public Safety Subcommittee
- AV vehicle/software identification concerns
  - » Current issues with identifying EVs/PHEVs/CAFVs/hybrids
  - » How will the state identify autonomous vehicles/software?
  - » Recommendation: require manufacturers provide DOL with VINs identifying autonomous vehicles

Next Steps

- July 11, 2019
  - » UW Recommendations
  - » Identify policy issues with licensing AVs
  - » Identify steps and actions to address issues
  - » Work with other subcommittees to coordinate analyses and plans

Closing Remarks

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State
Transportation Commission

Closing Remarks

- **Recap Today's Meeting:**
  - » Action Items
  - » Agreements / Decisions

- **Next Meeting:**
  - » September 25th – PACCAR site visit
  - » September 26th – Executive Committee meeting

Thank You!

WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State
Transportation Commission