

Autonomous Vehicle Work Group

Framing Washington's Transportation Future

2018 ANNUAL REPORT



WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Prepared by

wsp

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Work Group Facilitation – No Additional Funding Required

Purpose

Proposed Action Plan

Communications and Outreach – Additional Funding Required

Purpose

Proposed Action Plan

Funding Requirements



State of Washington

TRANSPORTATION COMMISSION

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January 11, 2019

Dear Governor Inslee, and Members of the Senate & House Transportation Committees:

We are pleased to present to you the annual report for the first year of our state's Autonomous Vehicle (AV) Work Group, created in the 2018 legislative session. RCW 47.01.510 requires the Transportation Commission to submit an annual report to the Governor and Legislature describing the progress of the AV Work Group and the Commission's recommendations.

This report represents the culmination of intense activity in a short time-frame, as lead agencies and stakeholders from around the state contributed their time and energy to organize the group and set in motion a process to make meaningful recommendations aimed at preparing Washington State for AVs.

Autonomous vehicles are on our roadways today. To date, eight companies have self-certified with the Department of Licensing for AV testing on our roadways, some of which has already begun. As a result, the efforts of this Work Group are paramount to helping to ensure public safety, while encouraging innovation. This Work Group's focus is not on regulating the industry, but rather on preparing the state and steering activity towards the best outcomes for our citizens. The process is designed to be deliberative and inclusive, driven by active and ongoing engagement with a wide range of stakeholders and interests working together to develop recommended actions.

While this report represents a summary of just the first six months of activity for this group, along with recommendations, we hope you will note and reflect on not only the significant efforts expended to date and thoughtful input received over the course of 2018, but also on the solid foundation the group has built for meaningful contribution in 2019 and the coming years. We look forward to your review and input.

Sincerely,

Jerry Litt, Chair

Washington State Transportation Commission

Darrin Grondel, Chair

Autonomous Vehicle Work Group
Executive Committee

Executive Summary

Overview of the Autonomous Vehicle Work Group

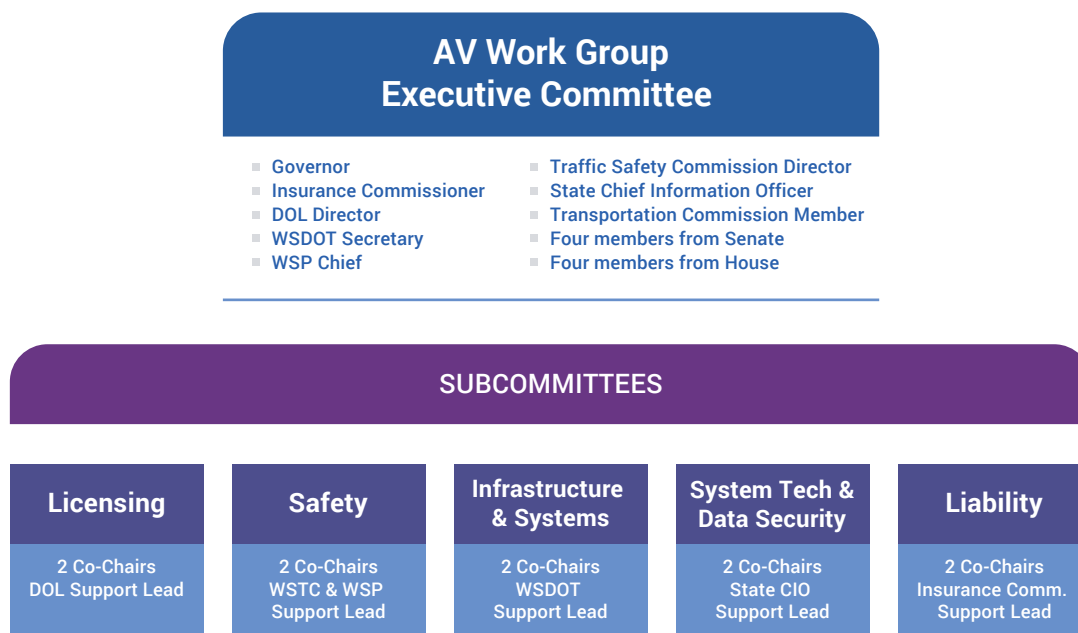
Autonomous vehicles (AV) are in operation on Washington's roadways today. As of late 2018, eight companies had self-certified their ability to safely operate in the state with the Washington Department of Licensing. In an industry that is moving quickly, states across the country are struggling to prepare for this technology, including ensuring public safety while still encouraging innovation. Further, the longer-term implications of mass deployment of AVs are prompting all levels of government to consider how to best harness the potential benefits of this technology, while avoiding the unintended consequences, similar to those experienced during the last major mobility revolution, with the advent of the automobile.

In response to these challenges, the State of Washington moved forward legislation in 2018 to create the Washington State Autonomous Vehicle Work Group, convened by the Washington State Transportation Commission (WSTC). The primary purpose of the Work Group is to identify measures, including regulatory, policy, infrastructure and other changes, necessary to enable and ensure the safe operation of AVs on public roadways, and provide

recommendations to the WSTC. The WSTC, in consideration of the Work Group's recommendations, is required by law to make recommendations to the Legislature and the Governor each year.

The Work Group will execute its charge through a five-year process of gathering information and making fact-based determinations on actions necessary to support this objective. This collaborative and inclusive process is designed to engage a wide range of public- and private-sector stakeholders in the discussion, employing a committee and membership structure designed to elicit diversity of opinion and insights. The process is also meant to be deliberative, recognizing that while this technology is at our doorstep, the state has time to achieve determinations through this process, rather than making premature changes without due consideration.

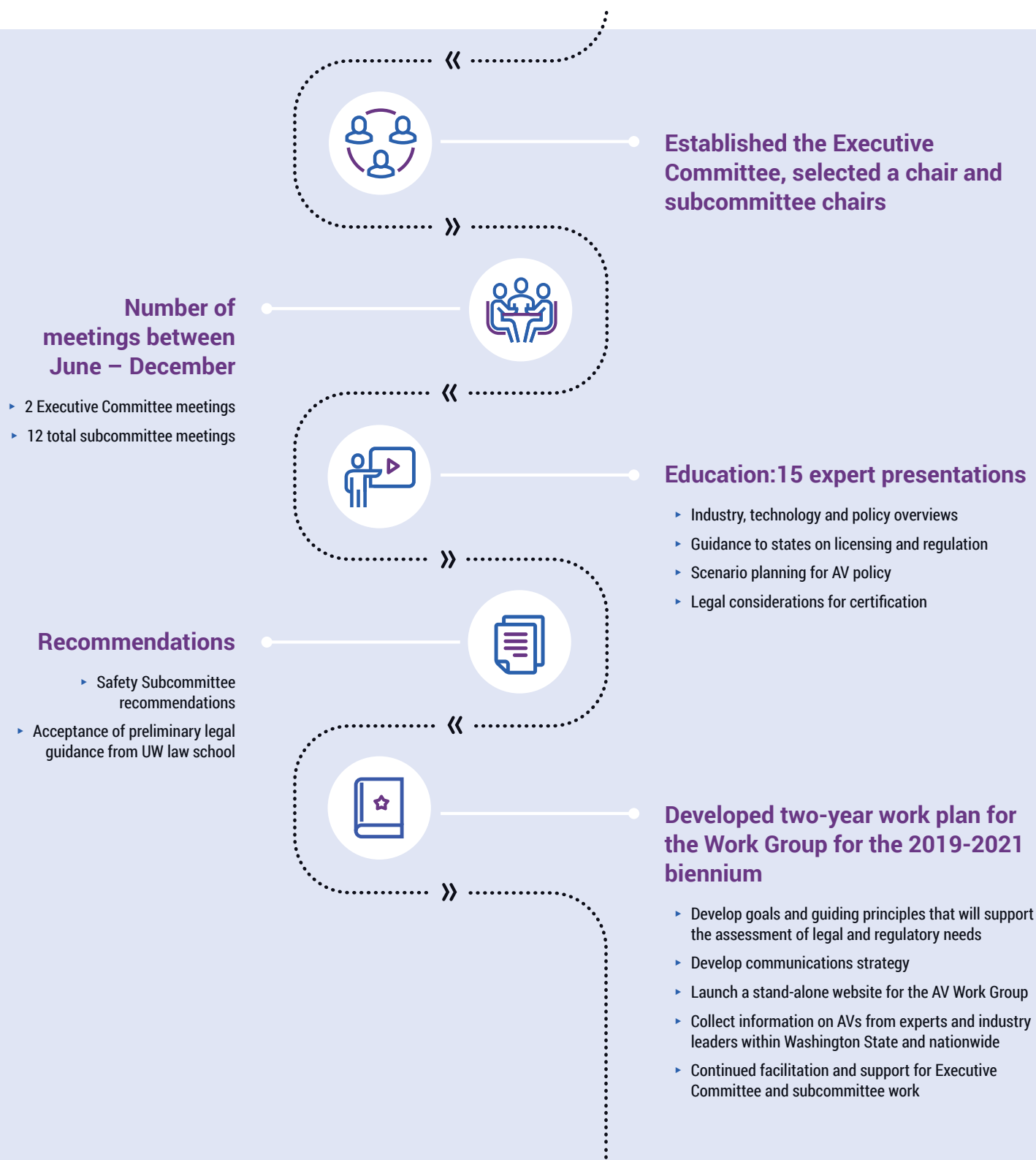
The Work Group is led by an Executive Committee and organized into five subcommittees for the purpose of engaging in specific topic areas.



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

2018 Work Group Accomplishments

2018 represented the inaugural year of the Work Group, starting with the passage of Substitute House Bill 2970 on June 7, 2018. While much of this partial year of activity included the establishment of the Work Group and subcommittees and required organizational functions, a number of key accomplishments have set the course for productive group activity into the next biennium.



WSTC Recommendations

At the outset of the Work Group, the Executive Committee agreed to advance all recommendations brought forward from the subcommittees to the WSTC. The WSTC would, in turn, advance these recommendations to the Legislature and Governor via this annual report, regardless of the Executive Committee's or the WSTC's action on the recommendations, as a matter of maintaining a complete public record of the process and results.

To this end, provided below are the recommendations from the WSTC for the Legislature and Governor's consideration, along with the action taken by the WSTC.

Recommendations Advanced to the Executive Committee and WSTC for Consideration

Source	Item	Executive Committee Voting Action*	WSTC Recommendation
University of Washington Law School (see p.10 for details)	Preempt local regulation to prevent unnecessary roadblocks to deployment of autonomous vehicles	None	Requires further evaluation by the Executive Committee and Subcommittees
	Update Definitions: revise the RCW to accommodate new technologies.	None	
	Self-Certification: promote innovation & freedom to develop new technologies	None	
	Enhanced Infrastructure: encourage local, state, and federal improvements in road systems and technologies to support AVs	None	
	Control Liability: impose liability on AV systems and manufacturers while autonomous systems are in operation	None	
	Update current data security laws: "lead the pack" in securing driver and user data	None	
Safety Subcommittee (see p.9 for details)	Conduct public education campaign	None**	Recommend delaying until further work can be conducted by the Work Group
	Conduct Health Impact Assessment (HIA)	None**	Recommended as Proposed

*None = no voting action taken

** Upon discussion by the Executive Committee, it was agreed that while these recommendations may warrant future action, it is too early in the Work Group process to support them at this time.

2019-2021 Work Plan

In 2018, the Legislature approved the WSTC receiving \$300,000 per biennium through 2023, to support its charge under the legislation. This funding will be sufficient for the facilitation of the Work Group, but additional funding will be needed for a communications effort as outlined below:

- ▶ **Communications and Outreach:** Providing a common website, messaging, and media coordination - \$190,000 (additional funding required).
- ▶ **Work Group Facilitation:** Support for Work Group meetings, materials development, reporting requirements, and vision/goals setting - \$300,000 (funded in current WSTC base budget).

1 — Introduction

Industry Overview

Autonomous vehicles (AV) are in operation on Washington's roadways today. As of late 2018, eight companies had self-certified their ability to safely operate in the state with the Washington Department of Licensing. In an industry that is moving quickly, states across the country are struggling to identify the right regulatory responses to ensure public safety while still encouraging innovation. Further, the longer-term implications of mass deployment of AVs are prompting all levels of government to consider how to best harness the potential benefits of this technology, while avoiding the unintended consequences, similar to those experienced during the last major mobility revolution, with the advent of the automobile.

In response to these challenges, the State of Washington moved forward legislation in mid-2018 to coordinate efforts across state agencies, create a statewide dialogue on AV technologies, and to develop recommendations to ensure public safety

Legislation Summary

Substitute House Bill 2970, signed into law on June 7, 2018, directs the Washington State Transportation Commission (WSTC) to appoint and convene an executive and legislative Work Group to gather information and develop autonomous vehicle (AV) policy recommendations to address the operation of AVs on public roadways in the State of Washington. The Work Group and the WSTC are charged with the following:

- ▶ Following developments in AV technology and related 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 Work Group and submit them along with a progress report to the Governor and Legislature each year.

The Washington State AV Work Group (hereafter referred to as "the Work Group") first convened on June 27, 2018. The legislation is in force through December 31, 2023.

Purpose of the Work Group

The primary purpose of the Work Group is to identify measures, including regulatory, policy, infrastructure and other changes, necessary to enable and ensure the safe operation of AVs on public roadways, and provide recommendations to the WSTC. The WSTC, in consideration of the Work Group's recommendations, is required by law to make recommendations to the Legislature and the Governor each year.

The Work Group will execute its charge through a five-year process of gathering information and making fact-based determinations on actions necessary to support this objective. This collaborative and inclusive process is designed to engage a wide range of public and private-sector stakeholders in the discussion, employing a committee and membership structure designed to elicit diversity of opinion and insights. The process is also meant to be deliberative, recognizing that while this technology is at our doorstep, the state has time to achieve determinations through this process, rather than making premature changes without due consideration.

Purpose of this Document

As required under the enabling legislation, this document represents a summation of the Work Group's efforts during the first partial year of engagement. This annual report documents the organization and composition of the Work Group, summarizes the key points of discussion and decisions as part of various Work Group meetings, and outlines initial recommendations and next steps for 2019, including anticipated activities and required funding for the 2019-2021 biennium.

2—Work Group Overview

Structure and Participants

This section will lay out the structure of the Executive Committee and Subcommittees. In 2018, the Washington State Legislature passed SHB 2970, requiring the WSTC to “...convene an executive and legislative Work Group to develop policy recommendations to address the operation of autonomous vehicles on public roadways in the state...”

The legislation specifies the membership of the Work Group and also authorizes the WSTC to appoint additional members. In order to capture stakeholder interests, understand issues thoroughly, and engage the public, the WSTC designated the legislatively required membership as the “Executive Committee”

and established five subcommittees: Licensing, Liability, Infrastructure and Systems, Safety, and System Technology and Data Security. Each subcommittee is administered and supported by the state agency who has jurisdiction over the topical area of the subcommittee (i.e.: the Dept. of Licensing administers and supports the Licensing Subcommittee). Each subcommittee is co-chaired by one public and one private sector representative, and each meeting is noticed and open to the general public for participation.

Executive Committee

The enabling legislation for the Work Group establishes Executive Committee membership, allowing additional members appointed by the WSTC as needed. The membership of the Executive Committee is listed below.

Table 1: Executive Committee Membership

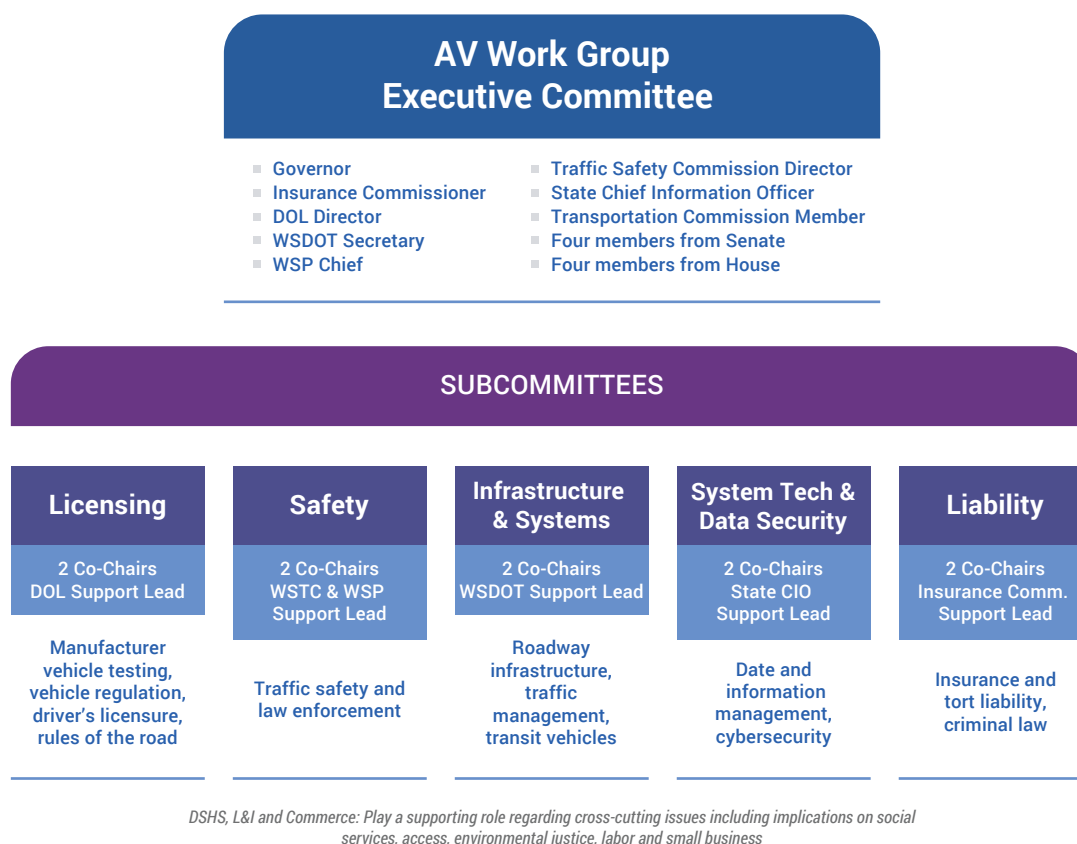
Requirement in Legislation	2018 Representative
Governor (or designee)	Charles Knutson, Senior Policy Advisor, Governor’s Office
Senate Member (D)	Senator Manka Dhingra
Senate Member (D)	vacant
Senate Member (R)	Senator Curtis King
Senate Member (R)	Senator Joe Fain
House of Representatives Member (D)	Representative Zack Hudgins
House of Representatives Member (D)	Representative Shelley Kloba
House of Representatives Member (R)	Representative Matt Shea
House of Representatives Member (R)	Representative Mark Harmsworth
Insurance Commissioner	Mike Kreidler
Director, Department of Licensing	Teresa Berntsen
Secretary of Transportation	Roger Millar
Chief, Washington State Patrol	John Batiste
Director, Traffic Safety Commission	Darrin Grondel (Executive Committee Chair)
Additional Member	James A. Restucci, Commissioner, WSTC
Additional Member	Alex Alben, Chief Privacy Officer, Office of the State Chief Information Officer

Organizational Structure

In order to ensure an inclusive, transparent, and collaborative process, WSTC established five subcommittees in addition to the Executive Committee, consisting of members from public and private stakeholders. The subcommittees each held

several public meetings, focused on specific subject areas. Subcommittee meeting agendas and notes are published on the [WSTC site](#). The organizational structure of the subcommittees and Executive Committee is explained by the graphic below.

Figure 1: AV Work Group Organization



Subcommittee Leadership

Each subcommittee is co-chaired by two members, one each from the public and private sector. The subcommittees and chairs are listed below.

Table 2: Subcommittee Leadership

Subcommittee	Public Sector Co-Chair	Private Sector Co-Chair
Licensing	Megan McCann (DOL)	Drew Wilder (University of Washington)
Liability	Lonnie Johns-Brown (OIC)	Harris Clarke (PEMCO)
Infrastructure and Systems	Roger Millar (DOT)	Michael Ennis (AWB)
Safety	Captain Dan Hall (State Patrol)	Kenton Brine (NW Insurance Council)
System Technology and Data Security	Alex Alben (OCIO)	Michael Schutzler (WTIA)

Policies and Procedures

At the outset of the Work Group, the Executive Committee established policies and procedures for both the Executive Committee and the subcommittees, to guide their discussion and decision-making processes.

Executive Committee

Executive Committee Responsibilities

- ▶ Serve as the central clearinghouse for all AV related issues under the purview of the Autonomous Vehicle Work Group Executive Committee.
- ▶ Follow developments in AV technology, AV deployment, and federal, state, and local policies and efforts related to the operation of passenger and commercial AVs.
- ▶ Explore and potentially identify modifications to state policy, rules, and laws to further public safety and prepare the state for AV deployment.
- ▶ Make recommendations to the Transportation Commission for inclusion in their report to the Legislature and Governor.

Executive Committee Operating Policies & Procedures

1. Members are encouraged to participate in every meeting. If unable, a substitute should be designated. Designated substitutes may vote.
2. A majority of members present constitutes a quorum for purposes of meeting.
3. All recommendations from subcommittees will be advanced to the Transportation Commission.
4. The Executive Committee may identify by a 2/3 majority vote, the subcommittee recommendations they support. Differences of opinion will be noted in the report to the Transportation Commission. All recommendations will be forwarded, with explanations of those voted for advancement and those voted against.
5. The Chairman will be selected by the Executive Committee members. The Chairman may vote.
6. Meetings will be noticed, open to the public and public comment will be taken at each meeting. Meetings may be in person or virtual, but must allow for public involvement in either format.
7. Meetings will be recorded and summaries will be posted online.

Subcommittees

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 Operating Policies & Procedures:

1. Each subcommittee will be co-chaired by one public sector and one private sector individual.
2. Agency leads will support the subcommittees and work with co-chairs on setting meeting agendas.
3. Subcommittees should meet at least quarterly and all meetings must be open to the public and materials made available online. Public comment must be taken at each meeting. Meetings may be in person or virtual, but must allow for public involvement in either format.
4. Subcommittees should establish an odd number of required voting members in order to advance preferred recommendations to the Executive Committee, for recommendations being voted on. A quorum of voting members must be present to do so.
5. Subcommittees may decide not to vote on recommendations, and recommendations not voted on may be advanced to the Executive Committee, with an explanation of why they were not voted on as preferred.
6. Recommendations will be advanced as preferred, according to a simple majority vote. Differences of opinion will be noted and included as part of the recommendations to the Executive Committee. All recommendations will be forwarded, with explanations of those voted as preferred for advancement, those voted against, and those not voted on.
7. Recommendations must be provided utilizing a standardized form, to ensure consistent communication and consideration of implications across all subcommittees.

3—Work Group Meetings

Executive Committee Meetings

The Executive Committee held two meetings in 2018. The first meeting launched the Work Group, and was held on June 27, 2018 at the Department of Enterprise Services building, 1500 Jefferson St in Olympia, Washington. During this public meeting, the Executive Committee selected Darrin Grondel (Executive Director, Washington Traffic Safety Commission) as the Committee Chair, discussed the organization and purpose of the Work Group. Presentations introducing the topic of autonomous vehicles and emerging national guidance was provided. Meeting materials, including the agenda and meeting summary, can be found on the [WSTC site](#).

The second meeting of the Executive Committee occurred on October 24, 2018, at the Washington State DOT Headquarters, 310 Maple Park Ave SE in Olympia. During this public meeting, each subcommittee presented on their meetings, discussions,

and recommendations thus far. The University of Washington Law School presented a legal scan of national and state laws related to AVs and made recommendations. The Work Group also discussed a proposed 2019/21 budget request, a proposed work plan for the next two years, and heard public comment. Meeting materials, including the agenda and meeting summary, can be found on the [WSTC site](#).

Subcommittee Meetings

The five subcommittees held individual meetings between June and December. Each meeting was posted on the WSTC site, along with agendas and meeting materials. Summaries of the meetings were also posted to the WSTC site after each meeting. The meeting dates, times, and locations of each subcommittee meeting, as well as topics covered, are listed below. Meeting agendas and meeting notes can be found on the WSTC site.

Table 3: 2018 Subcommittee Meetings Held

Subcommittee	Meeting #1	Meeting #2	Meeting #3
Licensing	8/23/18, 1125 Washington St. SE, Olympia, WA	10/5/18, 1125 Washington St. SE, Olympia, WA	12/7/18, 1125 Washington St. SE, Olympia, WA
Liability	8/30/18, 5000 Capital Blvd., SE, Tumwater, WA	12/6/18, 5000 Capital Blvd., SE, Tumwater, WA	
Infrastructure and Systems	10/2/18, 310 Maple Park Ave. SE., Olympia WA		
Safety	8/21/18, 106 11th Ave. SW, Olympia WA	9/17/18, 106 11th Ave. SW, Olympia WA	9/24/18, 106 11th Ave. SW, Olympia WA
System Technology and Data Security	9/7/18, 88 Blanchard Street Seattle, WA	10/29/18, 999 3rd Ave., Floor 32, Seattle, WA	12/5/18, 999 3rd Ave., Floor 32, Seattle, WA

Licensing

The licensing subcommittee included attendance from the following organizations:

- ▶ General Motors
- ▶ Washington Trucking Association
- ▶ Auto Dealers Association
- ▶ Seattle City Attorney's Office
- ▶ Technet
- ▶ Association of Global Automakers
- ▶ Washington Society of Professional Engineers
- ▶ Auditors Association
- ▶ Auto Alliance
- ▶ Washington State Police
- ▶ Insight Strategic Partners
- ▶ University of Washington
- ▶ Auto Auctions
- ▶ Comptia
- ▶ Teamsters
- ▶ Washington Association of Vehicle Subagents

The licensing subcommittee met three times, on August 23, October 5, and December 7 at 1125 Washington St SE in Olympia, WA. During the first meeting, the subcommittee discussed membership and appointed the first co-chair Megan McCann. The subcommittee also reviewed a group charter, and discussed the subjects they will examine, how recommendations will be made, and specific milestones and deliverables to address. Finally, the subcommittee established next steps for the second meeting.

The second meeting of the licensing subcommittee included selection of Drew Wilder as co-chair, a presentation by the University of Washington School of Law regarding testing and pilot program certifications, and a discussion of certification questions for Washington State. The third meeting of the subcommittee, held on December 7, 2018, included a presentation from Peloton on platooning technologies, a presentation on Federal considerations related to AV in freight movement, and discussion on the 2019 work plan and roadmap for the subcommittee. Detailed notes and materials from the Licensing Subcommittee can be found on the [WSTC site](#).

Liability

The liability subcommittee included attendance from the following organizations:

- ▶ Administrative Office of the Courts
- ▶ Teamsters
- ▶ City of Seattle
- ▶ PEMCO Insurance
- ▶ Washington State Transportation Commission
- ▶ University of Washington
- ▶ Carney, Badley, Spellman
- ▶ Association of Washington Business
- ▶ Lyft
- ▶ Technet
- ▶ Northwest Insurance
- ▶ Association of Washington Cities
- ▶ Property Casualty Insurers Association of America
- ▶ House Transportation Committee
- ▶ Global Automaker
- ▶ National Federation of Independent Business
- ▶ Progressive Insurance
- ▶ United Services Automobile Association (USAA)
- ▶ Dolly
- ▶ American Insurance Association (AIA)
- ▶ General Motors
- ▶ National Association of Mutual Insurance Companies
- ▶ Washington State Labor Council
- ▶ Washington State Association for Justice
- ▶ Washington State Office of the Insurance Commissioner

The liability subcommittee met twice, on August 30 and December 6, 2018 at 5000 Capital Blvd SE in Tumwater, Washington. During the first meeting, the subcommittee reviewed the goals of the group and meetings and elected subcommittee co-chairs Lonnie Johns-Brown and Harris Clarke. The subcommittee also reviewed their decision making process, and set a list of goals and issues to focus on in the short, medium, and long term. Finally, the subcommittee members were given topics to research for the following meeting.

The second meeting of the subcommittee included a review of information from other states and Federal activities related to liability, and identified next steps for 2019. Detailed notes and materials from the Liability Subcommittee can be found on the [WSTC site](#).

Infrastructure and Systems

The infrastructure and systems subcommittee included attendance from the following organizations:

- ▶ Washington State University
- ▶ University of Washington
- ▶ Washington Bikers
- ▶ Teamsters
- ▶ ACES Northwest
- ▶ Teamsters
- ▶ Futurewise
- ▶ Intelligent Transportation Society (ITS) Washington
- ▶ Alliance of Automobile Manufacturers
- ▶ Parametrix
- ▶ Technet
- ▶ American Automobile Association (AAA)
- ▶ Washington Policy Center
- ▶ Institute of Transportation Engineers
- ▶ American Council of Engineering Companies
- ▶ Sightline
- ▶ City of Seattle
- ▶ Bellevue Chamber of Commerce
- ▶ City of Vancouver
- ▶ Seattle Department of Transportation
- ▶ City of Auburn
- ▶ City of Monroe
- ▶ HDR, Inc.
- ▶ HNTB, Inc.
- ▶ Air Cape Consulting
- ▶ IBI Group
- ▶ DKS Associates
- ▶ Triunity Engineering and Management
- ▶ Serrmonti Public Affairs
- ▶ Transpo Group
- ▶ Harris and Associates
- ▶ Federal Highway Administration
- ▶ Washington State Labor Council
- ▶ Spokane Regional Transportation Council
- ▶ Puget Sound Regional Council
- ▶ Thurston Regional Planning Council
- ▶ CAVita
- ▶ Verizon
- ▶ Urban Logiq
- ▶ Daimler
- ▶ Sound Transit
- ▶ King County Metro
- ▶ Puget Sound Energy
- ▶ Utilities and Transportation Commission
- ▶ Washington State Department of Transportation
- ▶ Department of Health
- ▶ Port of Seattle
- ▶ Urbanova
- ▶ DKS Associates
- ▶ Spokane Regional Transportation Council
- ▶ McBride Public Affairs
- ▶ Avista Corporation
- ▶ Internet Affairs
- ▶ WSP USA

The infrastructure and systems subcommittee met once, on October 2, at 310 Maple Park Ave SE in Olympia, Washington. The first meeting of the subcommittee involved appointment of the first co-chair, Roger Millar, WSDOT Secretary. The meeting also included a presentation on Cooperative Automated Transportation (CAT), which defines WSDOT's program and the reminder for the subcommittee to maintain a broader perspective when preparing for "Autonomous" or Connected and Automated Vehicles. In addition, the subcommittee shared results from a survey it had conducted of its members prior to the first meeting, which was used to establish a baseline of understanding of CAT technologies by group participants, and to identify priorities of members as the subcommittee looks to develop a work plan for 2019. Detailed notes from the first meeting can be found on the [WSTC site](#).

Safety

The safety subcommittee included attendance from the following organizations:

- ▶ NW Insurance Council
- ▶ Department of Health
- ▶ Washington State Transit Insurance Pool
- ▶ City of Bellevue
- ▶ American Automobile Association (AAA)
- ▶ Washington State Department of Transportation
- ▶ Milton Police
- ▶ Association of Global Automakers
- ▶ Lyft
- ▶ Seattle Department of Transportation
- ▶ Washington State Department of Licensing
- ▶ Washington Traffic Safety Education Association
- ▶ Association of Washington Cities
- ▶ Cascade Bicycle Club
- ▶ Hopelink
- ▶ Parkside Driving School
- ▶ Futurewise

The safety subcommittee met three times, on August 21, September 17, and September 24, 2018, at 106 11th Ave SW in Olympia, Washington. The first meeting included a presentation on background information regarding autonomous vehicles, a discussion of the purpose of the subcommittee, brainstorming of topic areas and a prioritization of specific areas of concern to focus on.

The second meeting of the subcommittee included a review of the first meeting and a discussion of the top three topic areas; educating the public, accessing and understanding the black box data, and health impact assessments. The subcommittee also discussed potential recommendations and coordination with the licensing subcommittee.

The third meeting of the subcommittee further refined the recommendations and the discussion on the three topic areas from the previous meeting, as well as questions regarding AV testing and certification to be referred to the licensing subcommittee. The safety subcommittee submitted recommendations to the Executive Committee, described later in this document.

Final drafts were emailed out to all of the people who had expressed interest in being a part of the safety subcommittee, even if they hadn't attended any meetings. Additional feedback was requested, and all feedback provided was incorporated or

addressed. Once finalized, the recommendations and discussion documents were emailed out to everyone on the subcommittee distribution list.

Notes and documents from the meetings can be found on the [WSTC site](#).

Systems Technology and Data Security

The systems technology and data security subcommittee included attendance from the following organizations:

- ▶ Washington Technology Industry Association (WTIA)
- ▶ Internet Association
- ▶ Echodyne
- ▶ University of Washington
- ▶ Teamsters 117
- ▶ Teague
- ▶ Sightline
- ▶ Cisco Systems
- ▶ Amazon
- ▶ ReachNow
- ▶ Seattle Department of Transportation
- ▶ State of Washington Department of Commerce
- ▶ Verizon
- ▶ Microsoft
- ▶ Members of the public

The systems technology and data security subcommittee met three times, on September 7 at 88 Blanchard St in Seattle, Washington, and October 29 and December 5, 2018, at 999 3rd Ave in Seattle, Washington. The first meeting included background information on data and privacy, and discussion of the scope and role of the subcommittee. The meeting also generated priority areas to focus on for the subcommittee.

The second meeting of the subcommittee included a presentation from the infrastructure and systems subcommittee. The meeting then focused on targeted questions regarding data and security recommendations for Washington State.

The third meeting of the subcommittee included a presentation on AV trucks and freight platooning, a presentation from ReachNow on car sharing, presentations from technology providers (EchoDyne, Actelis), and a discussion of data principles for AV. Detailed notes are not yet available from this meeting.

Detailed notes and materials from the Systems Technology and Data Security Subcommittee can be found on the [WSTC site](#).

4—Work Group Recommendations and Input

Subcommittee Recommendations and Input

While not all subcommittees made concrete recommendations in the first year of membership, numerous discussions were captured identifying key areas to consider. Subcommittees submitted all recommendations and key discussions to the Executive Committee, and topics were reviewed during the Work Group meeting on October 24, 2018.

Licensing

The licensing subcommittee discussions centered around self-certification, testing, data, public awareness, and freight. The subcommittee focused on reviewing activities and guidance from the federal government and other states, to learn from parallel efforts. The subcommittee did not submit any specific recommendations. Discussion notes reported by the licensing subcommittee can be found on the [WSTC site](#).

Liability

The liability subcommittee discussions centered around ownership models for vehicles and their corresponding implications for insurance, as well as questions regarding data collected and its relationship to liability. Similar to the licensing subcommittee, the liability subcommittee discussed information learned from other states and the federal government. The subcommittee did not submit any specific recommendations. Discussion notes reported by the liability subcommittee can be found on the [WSTC site](#).

Infrastructure and Systems

The infrastructure and systems subcommittee discussions identified three focus areas for the subcommittee and established a work plan for 2019, which was circulated to the subcommittee membership for review in December, 2018. The three areas are:

1. Develop policy goals and strategies with measurable illustrative actions based on national “best practice” examples.

2. Develop project selection criteria and administration recommendations to enable near-term pilot deployments.
3. Implement a SAE level 1 driver assisted truck platooning pilot deployment.

The subcommittee developed a detailed and prioritized work plan for 2019, but had no specific recommendations to advance to the WSTC needing legislative action. Discussion notes reported by the infrastructure and systems subcommittee can be found on the [WSTC site](#).

Safety

The safety subcommittee discussions resulted in two recommendations and associated estimated costs.

Recommendation - Educate the Public: In consultation with the Transportation Commission, the Work Group, and private sector stakeholders, educate the public about the potential safety benefits and risks of safety technology associated with automated vehicles, as well as about automated vehicle testing in Washington. Understand the public’s current perception and beliefs about automated vehicles and use demonstration projects to familiarize the public technology.

Based on the costs of previous public education campaigns, the safety subcommittee estimated the following costs

- ▶ \$200,000 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 in SFY2021, to implement the strategic communication plan.
- ▶ \$200,000 in SFY2022, to evaluate the strategic communications plan and provide recommendations for a long-term framework for public education and outreach related to AVS.

Recommendation -Health Impact Assessment (HIA): Conduct a modified Health Impact Assessment, with emphasis on

identifying disproportionate impacts on disadvantaged populations.

Based on the costs of previous HIAs, the safety subcommittee estimated the following costs:

- ▶ \$750,000 in the SFY2019 –2021 biennium to complete a modified Health Impact Assessment.

Upon discussion by the Executive Committee, it was agreed that while these recommendations may warrant future action, it is too early in the Work Group process to support them at this time. Full discussion notes and recommendations reported by the safety subcommittee can be found on the [WSTC site](#).

Systems Technology and Data Security

The systems technology and data security subcommittee discussions focused on the scope of subcommittee work and membership of the group. The subcommittee considered elements of scope, including differentiating data vs. personally identifiable information, the need for regulation of specific technologies and the potential to consider a security standard. In addition, the subcommittee identified additional stakeholders to be included, such as manufacturers, public records act experts, insurance, technologists and others. The subcommittee did not submit any specific recommendations. Discussion notes reported by the systems technology and data security subcommittee can be found on the [WSTC site](#).

Input from Other Sources

As a part of the October 24, 2018 Executive Committee meeting, the University of Washington presented on the legislative landscape for autonomous vehicles and suggested numerous recommendations. The full presentation from the University of Washington is available on the [WSTC site](#). The University of Washington recommendations are:

- ▶ **Preempt local regulation to prevent unnecessary roadblocks to deployment of autonomous vehicles.** This recommendation would eliminate the potential for a patchwork of differing local regulations which may complicate AV introduction.
- ▶ **Update Definitions: revise the RCW to accommodate new technologies.** This may include update of existing definitions such as “driver” and “operator”, while also introducing new terms such as “autonomous driving system” to clarify existing and future statute.
- ▶ **Self-Certification: promote innovation & freedom to develop new technologies.** Self-certification removes the state from making a determination of suitability for on-road testing, but may be coupled with licensing and permit requirements to manage and track testing activities on public roadways.

- ▶ **Enhanced Infrastructure: encourage local, state, and federal improvements in road systems and technologies to support AVs.** This may include enhanced signings and markings, as well as communications technologies to support vehicle-to-infrastructure (V2I) communications.
- ▶ **Control Liability: impose liability on AV systems and manufacturers while autonomous systems are in operation.** This includes clarifying liability of an original manufacturer in the instance of a retrofit system.
- ▶ **Update current data security laws: “lead the pack” in securing driver and user data.** This includes both clarifying ownership of data, and capture and retention requirements of AVs in order to analyze incidents.

Executive Committee Input and Actions

During the meeting of the Executive Committee on October 24, 2018, the subcommittees presented their reports discussed above. The Executive Committee discussed all of the information and recommendations provided, including those from the University of Washington, and decided to include all of it in this report, **noting they were not voted on by the Work Group nor is any action being recommended.**

While they did not formally act upon the information provided, the Executive Committee believes it is important to include all information and recommendations, regardless of outcome, so it is captured as part of the public record and the Legislature can be made aware of it.

In addition to subcommittee reports and recommendations from the University of Washington, the Executive Committee discussed the two-year work plan for the Work Group. Noting the early stages of the Work Group effort and the continuing review and collaboration through the subcommittees, the Executive Committee decided to allow the subcommittee work to mature, and continue making recommendations. Therefore, the recommendation was for the 2-year work plan to focus on continued support for the Work Group and subcommittees, and to develop and implement a communication strategy and plan, and launch a stand-alone website for the Work Group. The Executive Committee felt the website was important to establish so that there was one place the public could go to get information on AVs in the state and stay abreast of the Work Group’s activities. They also believe the website will increase transparency, as well as provide consistent messaging and information on AVs. A more detailed description of the two-year work plan can be found in Section 6 of this report.

The Executive Committee also discussed the potential addition of 3 representatives; one each from: business, labor, and local government. The suggestion had arisen during the initial Work Group meeting. The Work Group discussed concerns regarding expansion of the Executive Committee, as well as concerns regarding selection of representatives from within each classification. In order to increase transparency and ensure all parties felt represented, the Work Group will continue to identify new methods for public engagement and outreach. The addition of representatives was tabled indefinitely and referred to the Transportation Commission given the law authorizes them to add members as needed.

Detailed meeting notes from the Executive Committee are available on the [WSTC site](#).

5—WSTC Recommendations

At the outset of the Work Group, the Executive Committee agreed to advance all recommendations brought forward from the subcommittees to the WSTC. The WSTC would, in turn, advance these recommendations to the Legislature and Governor via this annual report, regardless of the Executive Committee's or the WSTC's action on the recommendations, as a matter of maintaining a complete public record of the process and results.

The WSTC reviewed all of the recommendations that came forward from the Work Group and other sources, and as shown in the table below, one item is being formally recommended by the WSTC for consideration, as identified and recommended by the Safety Subcommittee:

Recommendation -Health Impact Assessment (HIA): Conduct a modified Health Impact Assessment of AV technologies, with emphasis on identifying disproportionate impacts on disadvantaged populations.

- \$750,000 in the SFY2019 –2021 biennium to complete a modified Health Impact Assessment.

Provided below are all of the recommendations issued and the outcome for each.

Recommendations Considered by the Executive Committee and WSTC

Source	Item	Work Group Voting Action*	WSTC Recommendation
University of Washington Law School	Preempt local regulation to prevent unnecessary roadblocks to deployment of autonomous vehicles	None	Requires further evaluation by the Executive Committee and Subcommittees
	Update Definitions: revise the RCW to accommodate new technologies.	None	
	Self-Certification: promote innovation & freedom to develop new technologies	None	
	Enhanced Infrastructure: encourage local, state, and federal improvements in road systems and technologies to support AVs	None	
	Control Liability: impose liability on AV systems and manufacturers while autonomous systems are in operation	None	
	Update current data security laws: "lead the pack" in securing driver and user data	None	
Safety Subcommittee	Conduct public education campaign	None**	Recommend delaying until further work can be conducted by the Work Group
	Conduct Health Impact Assessment (HIA)	None**	Recommended as Proposed

*None = no voting action taken

**Upon discussion by the Executive Committee, it was agreed that while these recommendations may warrant future action, it is too early in the Work Group process to support them at this time.

6—2019-2021 Work Plan and Funding Needs

During this inaugural year of the Work Group, WSTC developed a work plan and funding request to support one-time and on-going Work Group activities for the 2019-2021 biennium. The following work plan elements were reviewed by the Executive Committee during their October 24, 2018 meeting.

Work Group Facilitation – No Additional Funding Required

Purpose

There is a significant amount of research, technical analysis and support, facilitation, and reporting functions required of the Work Group that necessitates consultant support. Facilitation support was contracted for in 2018 using funds appropriated for the first year of operation of the Work Group. This work plan element would maintain the same level of support for the 2019-2021 biennium. The WSTC has been provided \$300,000 in their base budget for the coming biennium so no additional funding is needed for this activity.

Proposed Action Plan

The action plan for Work Group support and facilitation over the next two years would include the following activities:

- ▶ Support the development of a five-year road map, goals, and vision/guiding principles for the Work Group:
 - Develop goals that define what the Work Group wants to accomplish over the course of its five-year charge.
 - Develop guiding principles surrounding AV use in Washington State to support legal and regulatory assessments.
 - Develop a five-year road map that charts the major milestones the Work Group wants to accomplish to achieve the goals.
 - Facilitate discussions and develop materials.
- ▶ Support on-going Work Group activities including:
 - Preparing materials and presentations for Work Group meetings to facilitate discussion and enable guidance.
 - Assist in securing speakers / presenters on AV topics from Washington State and nationwide.
 - Conduct policy / legal research that supports the Work Group's exploration and information gathering.
 - Provide general Work Group meeting facilitation, support, and documenting of meeting discussions and decisions of the Work Group.
 - Documenting subcommittee discussions and decisions.
 - Work Group website maintenance.
 - Annual reporting support.
 - Development of 2021-2023 two-year work plan.

Communications and Outreach – Additional Funding Required

Purpose

The Work Group & the WSTC has an essential role of communicating its efforts to the public and key stakeholders for the purpose of informing and seeking periodic input. Specifically, the purpose of this communications and outreach work effort will be to:

- ▶ Educate the public and key stakeholder groups regarding AV information.
- ▶ Convey information to the general public about the Work Group's efforts and AV-related initiatives happening within the state.

- ▶ Communicate opportunities for stakeholders and the general public to engage in dialogue around AV and related technologies.
- ▶ Gain feedback and input from stakeholders and the general public on their thoughts and/or concerns regarding AVs and related technologies.

Proposed Action Plan

The action plan is proposed to include the following activities:

Develop Communications Plan

A communication plan will be developed, which establishes consistent messaging and identifies key audiences and forums, and the most appropriate combination of methods to reach them. Audiences may include:

- ▶ General public statewide
- ▶ Key decision makers
- ▶ Industry groups
- ▶ Advocacy groups
- ▶ Disadvantaged populations

It is expected that the plan will consider the following range of media and outreach strategies and approaches to communicating information about AVs, including:

- ▶ Website
- ▶ Print materials
- ▶ Media planning and management
- ▶ Outreach opportunities
- ▶ Opportunities for partnerships with established groups

Further, the plan will set goals and expectations for communications during the 2019-2021 biennium.

Carry Out Communications Strategy

At a minimum, it's anticipated that the following activities will be undertaken during the 2019-2021 biennium, subject to the finalized communications plan:

- ▶ Create a stand-alone "AV Work Group" website to provide a centralized location for information sharing and notices.
- ▶ Develop targeted print materials and presentations.
- ▶ Coordinate with media outlets to publicize AV Work Group meetings and information gathered, possible events, and major milestones for the Work Group as well as manage and respond to media inquiries.

Funding Requirements

The following is a breakdown of funding requirements to support this task for the biennium:

Develop Communications Plan & Strategy	\$20,000
Develop Print/Digital Materials	\$60,000
Coordinate Media Activities	\$40,000
Develop & Maintain Website	\$70,000
Total Funding Request	\$190,000



Washington State
Transportation Commission