



WASHINGTON STATE
AUTONOMOUS VEHICLE
WORK GROUP

Washington State Transportation
Commission

AV Work Group
2021 Activities
Annual Report Overview

October 20, 2021





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

Report due to the Legislature November 15, 2021



OUTLINE

1. Introduction
2. Work Group Overview
3. 2021 Work Group Activities
4. Recommendations
5. Roadmap to the Future



2. WORK GROUP OVERVIEW

35-member Executive Committee & 7 Subcommittees
comprised of representatives from a diverse set of public, private,
and non-profit organizations

AV Work Group Executive Committee

Government Representatives and Key Stakeholders from:

- Governor
- Four members from Senate
- Four members from House
- Insurance Commissioner
- DOL Director
- WSDOT Secretary
- WSP Chief
- Traffic Safety Commission Director
- State Chief Information Officer
- Transportation Commission Member
- Health Secretary
- Employment Security Director
- Labor & Industries Director
- Data, Technology & AV Testing
- Shared, Electric, TNC & Transit
- Automakers
- Local Governments
- Consumers/Traveling Public
- Environment
- Academia
- Underrepresented Communities
- Freight
- Labor

Subcommittees

Licensing

2 Co-Chairs
DOL Lead Agency

Safety

2 Co-Chairs
WTSC & WSP Lead
Agencies

Infrastructure & Systems

2 Co-Chairs
WSDOT Lead
Agency

System Tech & Data Security

2 Co-Chairs
State CIO Lead
Agency

Liability

2 Co-Chairs
Insurance Comm.
Lead Agency

Health & Equity

2 Co-Chairs
TBD Support Lead

Workforce

2 Co-Chairs
ESD and L&I Lead
Agencies

2021 Annual Report: Work Group Activities



Executive Committee met 3 times in 2021

- AV Industry Panels
- Focused Panels on Safety and Freight
- Research and Publications
- Pilot/Program Approaches
- NHTSA National Update

2021 Annual Report : Work Group Activities



Substitute Senate Bill (SSB) 5460 pass the Legislature and signed by Governor Inslee on May 3, 2021.

- Creates definition of “autonomous vehicle” to include SAE levels 4 and 5 for DOL Self-Certification Program
- Repeals RCW 46.37.480(1) prohibiting television viewers in vehicles
- Moves effective date of House Bill 2676 section 2 on Reporting back one year, to October 1, 2022

2021 Annual Report: Work Group Activities



ANSI / UL 4600: Standard for Safety for the Evaluation

- Initially Presented to Work Group in 2020
- System Technology & Data Security Subcommittee discussed applicability in WA during 2021

- May 24: **AV Industry Coalition** submitted UL4600 stakeholder feedback letter
- May 26: **WSTC** provided response to Industry Coalition
- July 2: **Principal Technical Author** of UL4600 provided response and corrections to misleading information

2021 Annual Report: Work Group Activities



SUBCOMMITTEES

- 5 of 7 Subcommittees met in 2021
- Some subcommittees going into “reactive / review” mode

Subcommittees will be presenting updates following this presentation



Recommendations

No recommendations were brought forth by the WA AV Executive Committee or its Subcommittees in 2021

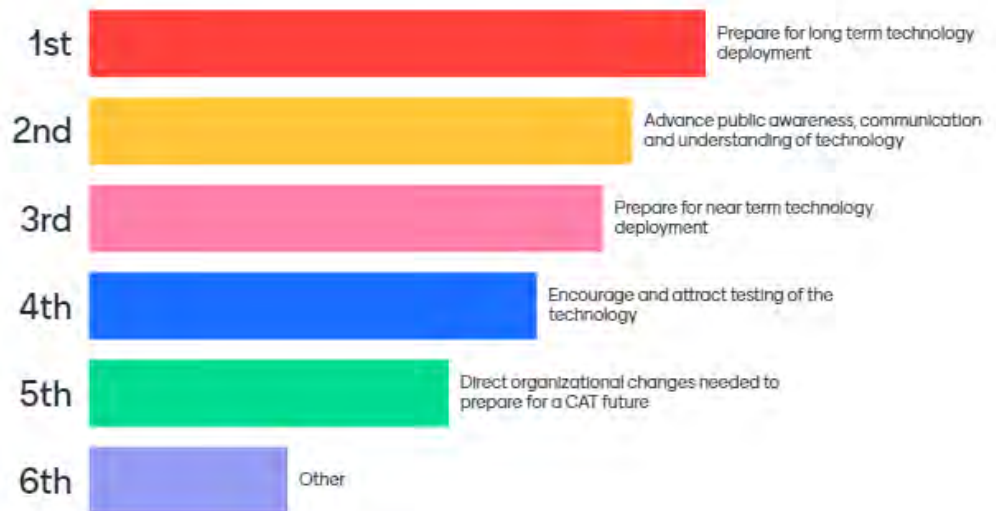
Potential opportunity for WSTC recommendation to the legislature

2021 Annual Report: Roadmap to the Future



Polling Exercise at
May 25th AV
Executive Committee
meeting to evaluate
Work Group's key
areas of focus
moving forward

In your view, what should be the principal objective of the Work Group? (rank in order)



2021 Annual Report: Roadmap to the Future



Key Takeaways from May 25 Polling Results:

- Public awareness is a key area of focus
- Interest in bringing AV testing, and state investment to attract it
- Focus on long term – looking towards the future

2021 Annual Report: Roadmap to the Future



First Two Years

(June 2018 – Dec 2020)

- Develop AV Work Group and Structure
- Conduct initial research and build knowledge base
- Identify immediate opportunities / recommendations



Remaining Three Years

(2021 - 2023)

- Shift focus towards long-term preparations & planning
- Develop the “Roadmap to the Future” for use after the Work Group sunsets in 2023

2021 Annual Report: Roadmap to the Future



The “Roadmap to the Future” will serve as the Work Group’s Legacy Deliverable and be a foundational resource for law makers.

» Deliver at the end of 2023 (*when the Work Group sunsets*)

key components of the “Roadmap”

Agency
Readiness

Testing /
Pilots

Public
Outreach

Safety

Path to
Deployment

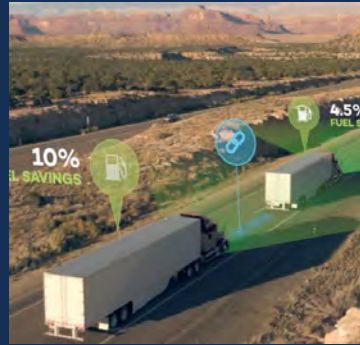
2021 Annual Report: Roadmap to the Future



Structure *Roadmap* around Use Cases to provide context



**Private
Passenger
AV**



Freight



Ride Hailing



**Last-Mile
Goods
Delivery**



Transit

Discussion Questions



- In determining the specific use cases for exploration, should the Work Group focus on near-term use cases (closer to commercial readiness) or longer-term use cases?
 - » **Near-term:** more actionable by the group today/soon, but potential for the roadmap to be short-lived
 - » **Long-term:** more difficult to define actions soon, but more likely to have longer-term relevance

Discussion Questions



- Should the Work Group be considering implications of the full range of automation, or only highly automated vehicles (Levels 4 and 5)?



Shift in Work Group Structure

Agency Staff Working Group

- Made up of staff from each of the lead agencies
- Foster and grow ideas
- Meet regularly
- WSTC support for research and development

Subcommittee Co-Chairs

- Join the Agency Staff Working Group
- Keeps private sector voice engaged

Subcommittees

- Agencies regularly engage membership electronically
- Convene when there is an idea on the table
- Look at idea through subcommittee's lens



Shift in Work Group Structure

WSTC

- Issue proposed approaches and ideas related to developing the five Roadmap components, for exploration by Agency Staff Work Group
- Executive Committee review developed concepts

Executive Committee

- Meet 2 times per year to vet matured recommendations & and continue information gathering
- Keeps private sector and stakeholder interests at the table and engaged

Legislature

- Implement components of the Roadmap to the Future as AV developments advance
- Respond to annual report recommendations
- Enact laws & provide funding when appropriate



Possible Recommendation from Transportation Commission

Legislature consider funding a state-sponsored AV pilot effort/ program

- » hybrid approach
- » A small grant program as well as exploring a state-sponsored, focused pilot
- » Direct the WSTC and WSDOT to further flush out what this pilot program could be and report back to Legislature by the 2023 session



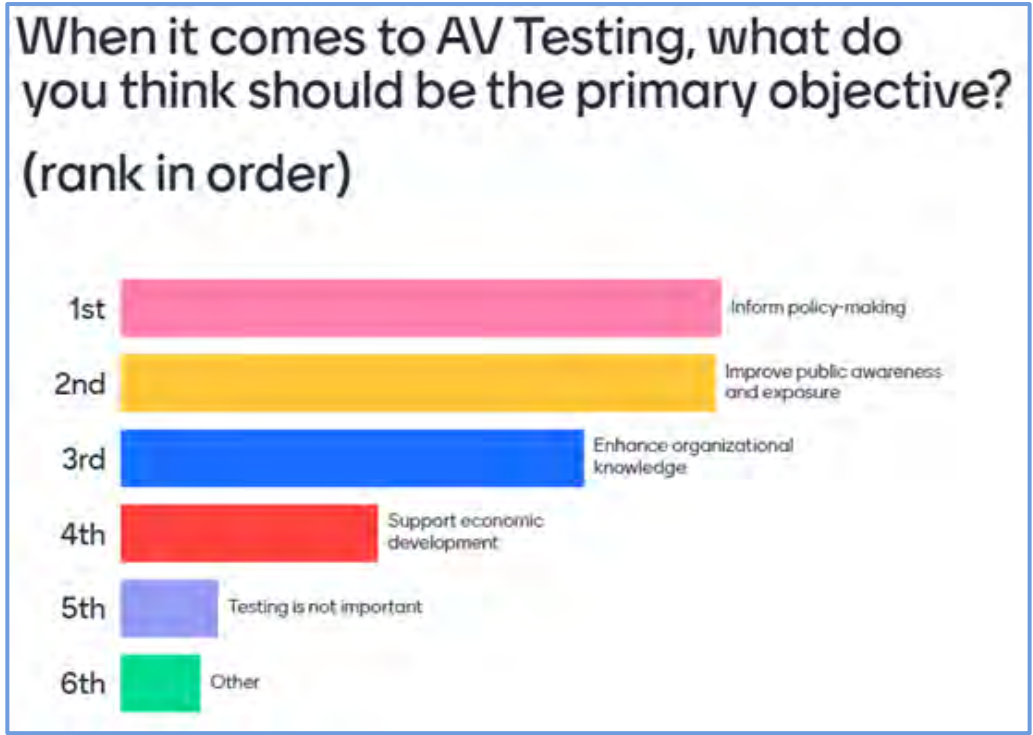
Possible AV Pilot Recommendation

Executive Committee May 25, 2021 polling exercise

17 of the 22 respondents voting “Yes”, indicating a strong interest in bringing AV testing to the state



“informing policy-making” as primary objective of testing in WA, with “improving public awareness and exposure” a close second



Possible AV Pilot Recommendation



PILOT APPROACHES

There is a wide range of approaches that vary many aspects of an AV pilot:

- Public vs. Private ownership and control
- Cost and risk sharing
- Level of scope definition
- Procurement mechanism / contracting approach
- How objectives are approached and achieved

Possible AV Pilot Recommendation



DEFINED PILOT



Source: UDOT/UTA
<http://www.avshuttleutah.com/>

- Request for proposals (RFP) for a specific pilot
- RFP defines exactly what is desired of the pilot with a pre-defined approach and specific work scope for the contractor
- A single entity (company or team) is selected and contracted to deliver the pre-defined service

Example: Utah DOT/Utah Transit Authority AV Pilot

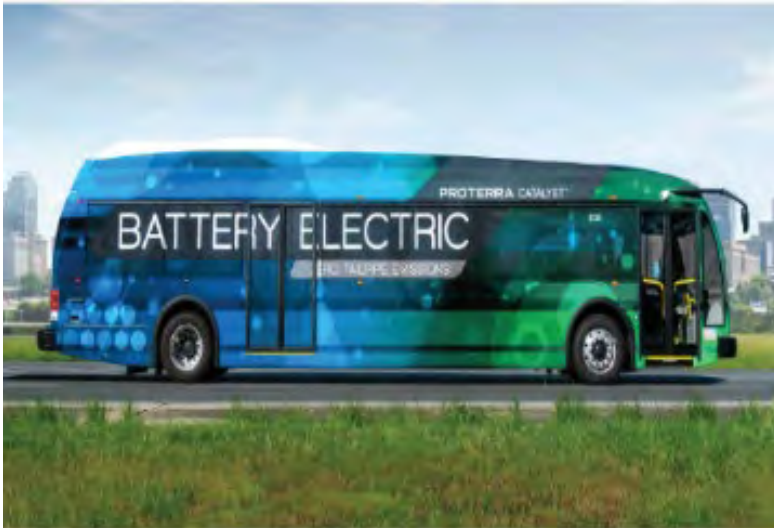
<http://www.avshuttleutah.com/>

- PROS:**
- Total control over the project scope and design
 - More traditional contracting approach for most agencies
- CONS:**
- Requires the owner to fully define the pilot – less room for industry creativity
 - Owner (public sector) will most likely pay the full cost of the pilot, with less potential for private partnership share
 - Owner may hold more project risk without “skin in the game” from private partner

Possible AV Pilot Recommendation



GRANT PROGRAM



Source: MDOT
<http://www.dot.state.mn.us/automated/cavchallenge.html>

- Solicitation of interest issued, outlines objectives of pilot program and solicits grant applications for pilot concepts which can meet some or all objectives
- Proposals evaluated on how well they meet objectives, requested amount, etc.
- Multiple grant applications could be accepted (depending on funding requested), or all could be rejected
- Could be a one-time award round or an ongoing program

Example: Minnesota DOT CAV Challenge Program

<http://www.dot.state.mn.us/automated/cavchallenge.html>

- PROS:**
- Industry defines how to achieve objectives – more opportunity for creativity and new approaches not considered by owner
 - Public-Private Partnership (P3) approach that would more likely yield cost and risk sharing
 - Ability to split available funding across multiple worthy pilots

- CONS:**
- Less control over pilot design and outcomes
 - More complex to contract and make selection determinations

Possible AV Pilot Recommendation



PILOT GOALS

Establishing goals for a potential pilot can guide:

- Type of pilot to pursue
- Pilot approach
- Expectations for both public and private sector
- Align with other related or competing goals (e.g. Environmental, Vision Zero)

Possible AV Pilot Recommendation



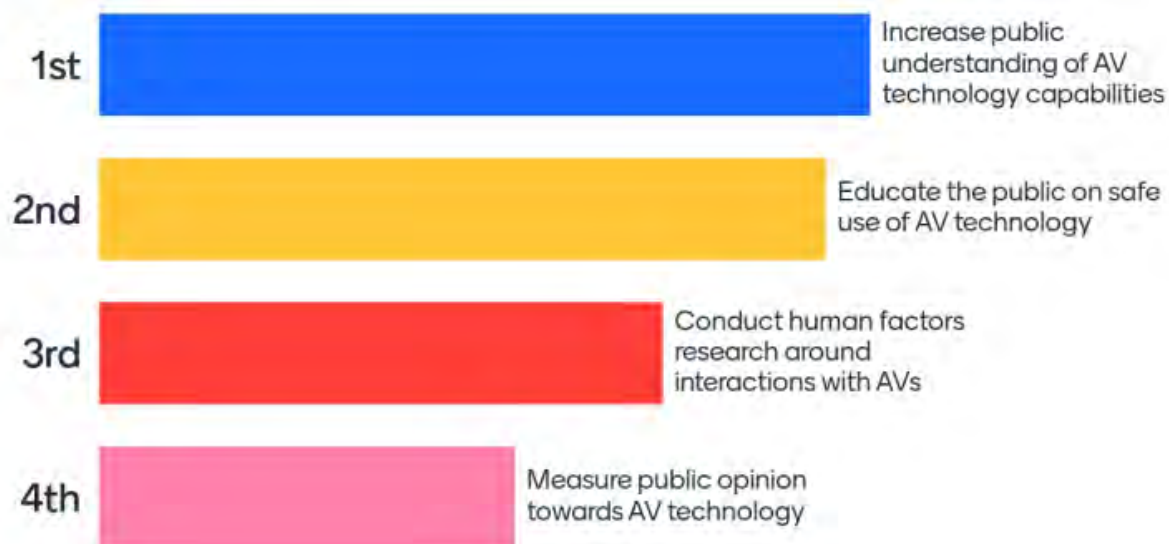
If Washington pursued and funded an AV pilot, what are the priorities in terms of the pilot *Informing Policy-Making Goals?* (rank in order)



Possible AV Pilot Recommendation



If Washington pursued and funded an AV pilot, what are the priorities in terms of the pilot *Public Awareness and Exposure Goals*? (rank in order)



Possible AV Pilot Recommendation



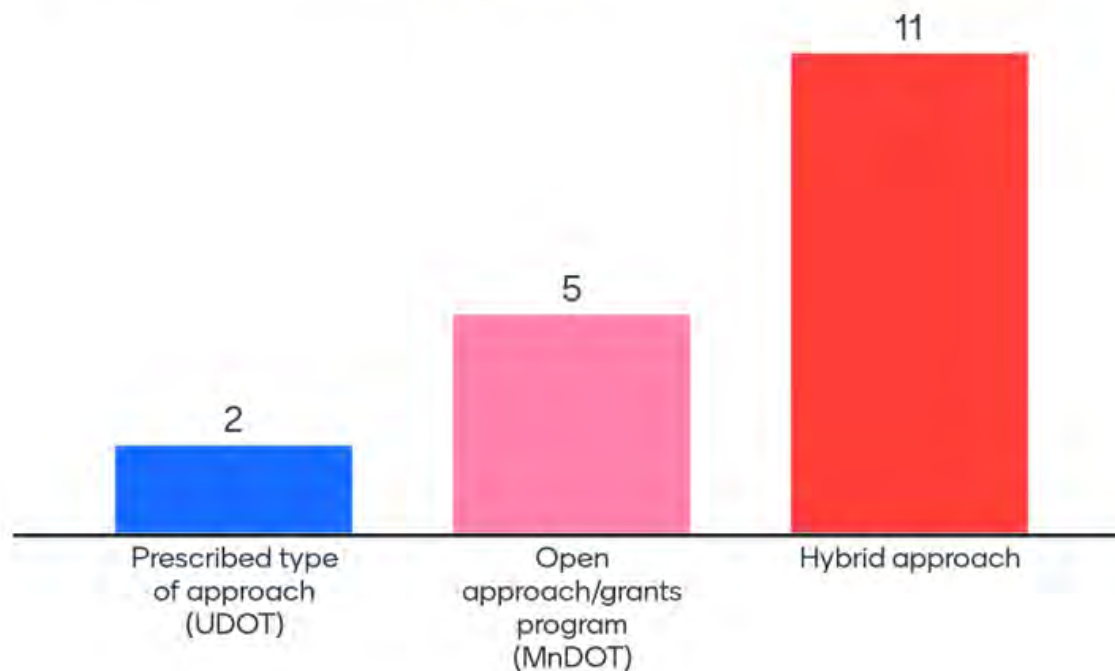
If Washington pursued and funded an AV pilot, what are the priorities in terms of the pilot *Organizational Knowledge Goals*? (rank in order)



Possible AV Pilot Recommendation



If Washington State pursued and funded a pilot program, what is the Preferred Pilot Approach?



Discussion – Possible AV Pilot Recommendation



Discussion – Possible AV Pilot Recommendation

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Thank You!



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