Dear Governor Kate Brown,

RE: Multiple Issues of the Task Force on Autonomous Vehicles (AV)

I have concern there is no representation from our Oregon Pedestrian and Bicycle community advocacy groups on the legislatively created Autonomous Vehicle Taskforce. I realize this Task Force Committee was legislatively driven & ODOT appointed, but our state needs your leadership for vulnerable road users' voice within the Task Force's products.

I urge you to consider adding the Pedestrian Bicycle Postscript perspective that includes Bicycle and Pedestrian viewpoints. We have a wealth of people to serve to create an addendum regarding Autonomous Vehicles with this perspective in mind: Oregon Bicycle and Pedestrian Advisory to Oregon Department of Transportation, the Street Trust, Oregon Walks, OPAL, Community Cycling Center and others.

Given that the first round of Task Force Agenda and Memorandi are now appearing...there are deficiencies which show the void of not having all the important players at the table. The Pedestrian/Bicycle/Vulnerable Road user viewpoint is missing in every material packet presented on the ODOT website.

1) Subcommittee on Cybersecurity and Long-Term Policy, Oregon Task Force on Autonomous Vehicles has no reference to the US Senate Bill 1885 - AV START Act which is in committee in DC.

2) There is NO mention of Visioning Systems or Pedestrian/Bicycle/Vulnerable Road User Protection:
   A. Insurance and Liability Subcommittee 1 Materials June 6
   B. Law Enforcement and Crash Reporting Subcommittee Materials June 7
   C. https://www.oregon.gov/ODOT/Programs/Pages/CAV.aspx

3. One mention of 'Pedestrian'
   A. Licensing and Registration Subcommittee 2 Material June 12
   B. Automated Vehicle 101 materials ODOT
   C. The Drive toward Change: Use Cases for AV ODOT

There is no discussion of ORS 811.065 safe passing distance for bicyclists (or pedestrians). This is a sad comment and potentially a liability for the state for the exclusion of this pedestrian/bicycle/vulnerable road user point of view at this high policy level. I am appreciative of the experience of the Chair Tim Tannenbaum from Washington County & his background with his police officers on bicycles. But again, the materials on the ODOT web illustrate the failure to be in the discourse. Given that Pedestrians and Bicyclists have the greatest vulnerability for injury and death on our roadways, it seems the Oregon task force committee should correct the exclusion of these road users.

Federal Issues

In an advisory from Chair Elaine Chao of the US Department of Transportation, she states: "Entities are encouraged to have a documented process...are expected to be able to detect and respond to other vehicles (in and out of its travel path), pedestrians, bicyclists, animals, and objects that could affect safe operation of the vehicle...should also include the ability to address a wide variety of foreseeable encounters, including emergency vehicles, temporary work zones, and other unusual conditions...that may impact the safe operation..."

Where Death Occurs

As you should be aware, Governors Highway Safety Association report in late 2017 found 82% of pedestrian fatalities occurred outside of intersections. These midblock crossing deaths are now the new normal. This is a new revelation

A. J. Zelada
heightens the importance of vision systems that must include maximum awareness systems for any detection. (https://www.ghsa.org/resources/spotlight-peds17)

The Public Awareness of Autonomous Vehicle Deaths

The League of American Bicyclists, has been monitoring the AV Start which the US House just passed months ago in a version within the Federal Aviation Authorization bill. The Senate is to take up this concern now. We want the inclusion the Vision tests in the vernacular of safety standards: to see construction workers on the road, blind people crossing intersections, police directing traffic, first responders as well as our large population of pedestrians and bicyclists). Attached is the League of American Bicyclists statement that will apprise you of our pedestrian/bicyclist perspective and the needed AV START inclusion of the Vision Test.

For example, 'The crash in Tempe, as well as preliminary studies in San Francisco and Pittsburgh, show that automated vehicles on the road are not always able to detect and respond to vulnerable road users such as bicyclists, pedestrians and people in wheelchairs. In San Francisco, automated vehicles were found to engage in four of the five driver behaviors most likely to cause vulnerable road user fatalities and injuries including: running red lights, rolling through stop signs, making dangerous right turns, and not yielding to pedestrians in crosswalks. A survey by Bike Pittsburgh of its members received a number of comments on near-misses by autonomous vehicles, and of incidences of AVs not following the state’s four foot safe passing law. In addition, recent articles in IEEE Spectrum and in Slate magazine report that detecting bicyclists is one most difficult problem ADS technology faces and testing for bicyclists lags behind other automated driving system technology tests.' ~ from the League of American Bicyclists.

I hope you see that this AV Task Force committee needs leadership beyond the present AV Task Force's cockpits view that disregards Transportation including the bicyclist, the pedestrian and vulnerable road users.

Thank you for taking these matters seriously. And thank you for your service with this important state wide issue.

Sincerely,

A. J. Zelada, OD
Member, Board of Directors
League of American Bicyclists

Former Member and Chair, 2008-2013
Oregon Bicycle and Pedestrian Advisory to
Oregon Department of Transportation

Attachments:
League of American Bicyclists’ Concern of AV Visioning Omission
Letter from Advocates for Highway Safety & Auto Safety
AV_Fact_Sheet_final(1)-1.pdf

cc: Oregon Task Force Members on Autonomous Vehicles
Jonathan Maus, BikePortland.org
Oregon Bicycle and Pedestrian Advisory Committee to ODOT
(copy sent to Oregon Senators Wyden and Merkley)

We are writing to strongly urge you to oppose efforts to attach the pending AV START Act (S. 1885) to the Federal Aviation Administration (FAA) Reauthorization Act (S. 1405), which is expected to be considered on the Senate Floor soon after the upcoming recess. Giving the AV START Act a “ride” on the FAA bill would be ironic at best and lethal at worst.

The safety deregulation built into the AV START Act and the precise and thorough way aviation handles autonomous systems is a study in stark contrast. The FAA has rigorous protocols for ensuring the safety of automation in the air, and examples of the success of effective standards and oversight of automated systems fly over our heads every single day.

Conversely, the AV START Act, in its current form, shockingly exempts potentially millions of these self-driving vehicles from meeting existing safety regulations. The failures of this experimental technology have been tragically demonstrated in a number of crashes which have resulted in at least three deaths. The National Transportation Safety Board (NTSB) has several open investigations which will produce findings likely to have a direct bearing on the AV START Act. The bill should not be advanced, especially as a rider on the FAA bill, until those investigations are complete and critically-needed changes are made to ensure safety.

The AV START Act will likely set policy on driverless cars for decades to come. As such, comprehensive safeguards, sufficient government oversight and industry accountability are essential. The bill, in its current form, fails to provide these minimal safety protections. The reasonable improvements outlined below will address known and foreseeable problems with driverless car technology. Moreover, they will help to bolster public trust in this nascent technology which has already shown to be deficient. We ask for your support for the following commonsense improvements:

- Limit the size and scope of exemptions from federal safety standards;
- Require minimum performance standards such as a “vision test” for driverless technologies, cybersecurity and electronics system protections, and distracted driving requirements when a human needs to take back control of a vehicle from a computer;
- Provide for adequate data collection and consumer information;
- Compel all AVs to capture comprehensive crash data in a format that will aid investigators such as the NTSB and the National Highway Traffic Safety Administration (NHTSA);
- Ensure access and safety for members of all disability communities which have differing needs;
- Subject Level 2 (partially-automated) vehicles to all safety critical provisions;
- Prohibit manufacturers from unilaterally “turning off” vehicle systems such as the steering wheel and gas pedal which is not allowed under current law;
- Maintain the right of states and localities to protect their citizens by regulating the AV system in absence of federal regulations; and,
- Provide NHTSA with sufficient resources and authorities.

Some critics of these changes claim they would stifle innovation or hamper technological progress. But what they will actually do is provide essential protections for AV occupants as well as everyone sharing the roads with them for many years to come. Our diverse group of safety, public health, bicyclists, pedestrians, smart growth, consumer and environmental groups, law enforcement and first responders, disability communities and

A. J. Zelada
families affected by motor vehicle crashes support these sensible improvements that must be made before the bill moves forward.

It would be egregious to push the AV START Act through by tacking it onto a must-pass bill. Doing so would circumvent the regular legislative process and cut it off from full debate, discussion, transparent consideration, and the offering of amendments. The artificial urgency to advance this bill is disconnected from the reality that AVs are still potentially decades away. In fact, just last week Bill Ford Jr., Executive Chairman of Ford Motor Company, said “There’s been a lot of over-promising and I think a lot of misinformation that’s been out there. It’s really important that we get it right, rather than get it quickly.”

Yet, industry interests seeking to sell - not just test - unproven systems continue to perpetuate this false premise. We urge you to allow the NTSB to finish their recommendations so that you can benefit from their expertise to help inform you in your decision-making process and insist on the adoption of the urgently-needed safety requirements in the bill.

Thank you for your consideration.

Sincerely,

A. J. Zelada, OD
Member, Board of Director
League of American Bicyclists

Former Member and Chair, 2008-2013
Oregon Bicycle and Pedestrian Advisory to
Oregon Department of Transportation
July 10, 2018

The Honorable John Thune, Chairman
The Honorable Bill Nelson, Ranking Member
Committee on Commerce, Science, and Transportation
United States Senate
Washington, DC 20510

Dear Chairman Thune and Ranking Member Nelson:
In preparation for tomorrow’s hearing “Complex Cybersecurity Vulnerabilities: Lessons Learned from Spectre and Meltdown,” we write to highlight the critical problems related to the cybersecurity of connected and autonomous vehicles (AVs). As these cars will be “computers on wheels,” it is absolutely essential that strong protections be in place to safeguard against potentially catastrophic instances of vehicle hacking. We respectfully request that this letter be included in the hearing record.

Given recent high-profile cyberattacks and the tremendous threat that hacking will pose to connected and automated cars, we are very concerned that these potential risks are not being adequately addressed. In 2015, hackers demonstrated their ability to take over the controls of a sport utility vehicle (SUV) that was traveling 70 miles-per-hour on an Interstate outside of St. Louis, MO. By accessing the vehicle’s entertainment system using a laptop computer, hackers located miles away from the vehicle were able to send disruptive commands to the SUV’s dashboard functions, steering, brakes, and transmission. This incident is likely just a preview of the types of hacking that will be possible as vehicles become even more reliant on complex electronic systems and outside communications.

Moreover, there is a very real and dangerous possibility that instances of hacking will not only affect one individual vehicle, but could very well impact entire fleets or model lines – posing a severe risk to occupants of the hacked vehicles as well as other road users. These attacks could also clog roads, stop the movement of goods and hinder the response of emergency vehicles. Of additional concern, there are a number of tragic examples of conventional vehicles being used as weapons by terrorists. The potential for remote hacking of connected and automated vehicles by these malicious actors could have unimaginable implications for our national security. Moreover, these risks will only be exacerbated as commercial motor vehicles, specifically large trucks and buses, become more reliant on autonomous systems and are used in platoons.

Currently, Section 14 of the American Vision for Safer Transportation through Advancement of Revolutionary Technologies (AV START) Act (S. 1885), only requires manufacturers to have a cybersecurity plan in place. This is woefully inadequate and has no requirements that any protections be implemented. Instead, the legislation should be improved to direct the National Highway Traffic Safety Administration (NHTSA) to issue a minimum performance standard for all AVs (including SAE Level 2 vehicles). The agency should be required to issue this final rule within a reasonable deadline of three years after enactment. In fact, the July 6, 2018 edition of Science Magazine included an article penned by Joan Claybrook and Shaun Kildare which called for a cyber standard and suggested that regulators “look across industries and adapt standards from other modes and fields (banking, military, aviation, etc.) to ensure that AVs have a means for detecting and responding to an attack appropriately and preventing a widespread threat to safety.”

Further, we support the establishment of a method for sharing cybersecurity problems and vulnerabilities among manufacturers so that all systems can be updated accordingly. To mitigate against widespread impacts,
establishing a method of quickly identifying issues and disseminating that information across all participants is critical.

The public recognizes the acute threat of cybersecurity attacks on vehicles, and for good reason. A poll conducted by Morning Consult earlier this year showed that 67 percent of adults responded that they were somewhat or very concerned about cyber threats to driverless cars. An ORC International poll from January 2018 showed that 81 percent of respondents supported the United States Department of Transportation issuing rules to protect against hacking of cars that are being operated by a computer.

We urge you to include the need for robust protections against vehicle hacking in tomorrow’s timely discussion. Furthermore, the pending AV START Act should not be enacted into law without requirements that sufficiently account for the reality of cybersecurity threats, including hacking into driverless cars. Thank you for your consideration of our position. We look forward to continuing to work with you to ensure the safety of all road users.

Sincerely,

Catherine Chase, President
Advocates for Highway and Auto Safety

Joan Claybrook, President Emeritus
Public Citizen and Former NHTSA Administrator

Jason Levine, Executive Director
Center for Auto Safety

Jack Gillis, Executive Director
Consumer Federation of America

Rosemary Shahan, President
Consumers for Auto Reliability and Safety

John M. Simpson, Privacy and Technology
Project Director, Consumer Watchdog

cc: Members of the Committee on Commerce, Science, and Transportation

Letter copy submitted to Gov. Kate Brown, Jul 12, 2018 by AJZ
Background: In 2017, The Senate Commerce Committee passed S. 1885, the “American Vision for Safer Transportation through Advancement of Revolutionary Technologies” (AV START) Act. The goal of the bill is to establish an interim framework for the deployment of self-driving technology before it is mature enough to enable specific new federal safety standards. While the League of American Bicyclists (the League) supports the development of this technology and agrees that it has the potential to greatly reduce the traffic injuries and fatalities attributed to distracted driving, speeding and other behaviors, we also believe that these vehicles must be able to pass some basic safety standards before being deployed in large numbers on our streets.

The League calls for a standardized performance test, or “vision test,” that measures an automated vehicle’s ability to recognize and respond to vulnerable road users, including bicyclists, pedestrians and people with disabilities.

Vision Test Safety Standard: Set a federal standard ensuring that Automated Vehicles would are able to detect and respond to people biking, walking and using wheelchairs, as well as construction workers in work zones, first responders providing assistance and law enforcement officers directing traffic;

• Test the ability to detect and respond to roadway infrastructure designed for bicycling and walking including: shared lane markings (sharrows), crosswalks, including those that use art, pavers, or other non-standard paving; bike lanes, whether striped or buffered (with paint or physical barriers); and advisory bike lanes;

• Test the ability to detect bicyclists coming up along the passenger side of the vehicle, stopped alongside a row of parked cars, or signaling a left turn from the opposite side of the road.

Why It Matters: Pedestrian and bicyclists make up 17 percent of all roadway fatalities despite being responsible for 12 percent of the trips. Strong testing of automated vehicle technology has the potential to help reduce these risks, but only if vehicle manufacturers are held accountable to build and test their vehicles to recognize and respond to vulnerable users.

• Detecting bicyclists is one of the most difficult problems automated driving systems have, and yet what little public information on automated vehicle testing exists suggest that testing for bicyclists lags behind other automated driving system technology tests.

• Automated Vehicles in San Francisco were found to engage in four of the five driver behaviors with the highest results in vulnerable user fatalities, including: running red lights, rolling through stop signs, failure to yield to pedestrians in crosswalks, and dangerous right turns (AVs did not speed.) Each of these four behaviors observed in AVs could be improved by AVs meeting minimum standards to detect and respond to all roadway users, signage, and markings.
(copy sent to Oregon Senators Wyden and Merkley)

We are writing to strongly urge you to oppose efforts to attach the pending AV START Act (S. 1885) to the Federal Aviation Administration (FAA) Reauthorization Act (S. 1405), which is expected to be considered on the Senate Floor soon after the upcoming recess. Giving the AV START Act a “ride” on the FAA bill would be ironic at best and lethal at worst.

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well as everyone sharing the roads with them for many years to come. Our diverse group of safety, public health, bicyclists, pedestrians, smart growth, consumer and environmental groups, law enforcement and first responders, disability communities and families affected by motor vehicle crashes support these sensible improvements that must be made before the bill moves forward.

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Thank you for your consideration.

Sincerely,

A. J. Zelada, OD
Member, Board of Director
League of American Bicyclists

Former Member and Chair, 2008-2013
Oregon Bicycle and Pedestrian Advisory to
Oregon Department of Transportation
April 30, 2018

Dear Chair Lt Timothy Tannenbaum,

RE: Two Issues
A. Vulnerable Road Users' Representation
B. AV Start Bill, US Congress

I have concern there is no representation from our Oregon Pedestrian and Bicycle community advocacy groups on the Autonomous Vehicle Committee.

I urge you to consider adding the Pedestrian Bicycle perspective given we already have experience of the visioning system has failed and produced a very public awareness of a pedestrian death.

We have a wealth of people to serve in this capacity:
Oregon Bicycle and Pedestrian Advisory to Oregon Department of Transportation
Street Trust
Oregon Walks
OPAL
Community Cycling Center

In an advisory from Chair Elaine Chao from the Department of Transportation states: "Entities are encouraged to have a documented process for assessment, testing, and validation of their ADS’s OEDR capabilities. When operating within its ODD, an ADS’s OEDR functions are expected to be able to detect and respond to other vehicles (in and out of its travel path), pedestrians, bicyclists, animals, and objects that could affect safe operation of the vehicle. An ADS’s OEDR should also include the ability to address a wide variety of foreseeable encounters, including emergency vehicles, temporary work zones, and other unusual conditions...that may impact the safe operation of an ADS."

Given that Pedestrians and Bicyclists have the greatest vulnerability for injury and death on our roadways, it seems the committee should correct this exclusion of perspectives from road users. I am appreciative of your own experience in Washington county concerning your officers on bicycles.

'The crash in Tempe, as well as preliminary studies in San Francisco and Pittsburgh, show that automated vehicles on the road are not always able to detect and respond to vulnerable road users such as bicyclists, pedestrians and people in wheelchairs. In San Francisco, automated vehicles were found to engage in four of the five driver behaviors most likely to cause vulnerable road user fatalities and injuries including: running red lights, rolling through stop signs, making dangerous right turns, and not yielding to pedestrians in crosswalks. A survey by Bike Pittsburgh of its members received a number of comments on near-misses by autonomous vehicles, and of incidences of AVs not following the state’s four foot safe passing law. In addition, recent articles in IEEE Spectrum and in Slate magazine report that detecting bicyclists is one most difficult problem ADS technology faces and testing for bicyclists lags behind other automated driving system technology tests.' ~ from the League of American Bicyclists.

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May. We want the inclusion the Vision tests (in the vernacular of safety standards in order to see construction workers on the road, blind people crossing intersections, police directing traffic, first responders as well as our large population of pedestrians and bicyclists).

As you should be aware, Governors Highway Safety Association report in late 2017 found 82% of pedestrian fatalities occurred outside of intersections. These midblock crossing deaths are now the new normal. This is a new revelation which heightens the importance of vision systems that must include maximum awareness systems for any detection. (https://www.ghsa.org/resources/spotlight-peds17)

Attached is the League of American Bicyclists statement that will apprise your committee members a pedestrian/bicyclist perspective, AV START Vision Test.

Thank you for taking these two serious matters to the committee. And thank you for your service with this important state wide issue.

Sincerely,

A. J. Zelada, OD

Member, Board of Directors
League of American Bicyclists

Member, Board of Directors
Street Trust (formerly the Bicycle Transportation Alliance BTA)

Former Member and Chair, 2008-2013
Oregon Bicycle and Pedestrian Advisory to
Oregon Department of Transportation