

# AUTONOMOUS VEHICLES 101

A/V SAFETY SUB-COMMITTEE

AUGUST 21, 2018



# MORNING CONSULT SURVEY – JAN 2018

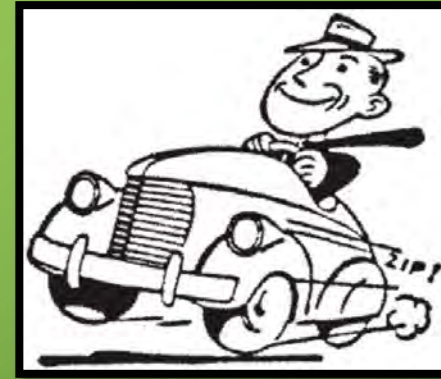
- 60% of Americans know little to nothing about A/V
- A slight majority distrust A/V, but may trust more as technology evolves
- Multiple safety concerns:
  - Technical glitches (79%)
  - Driverless cars mixing with human-driven vehicles (78%)
  - Safety of personal data, such as GPS tracking (66%)
- Distrust is actually increasing...



565 people killed  
on WA roadways  
in 2017

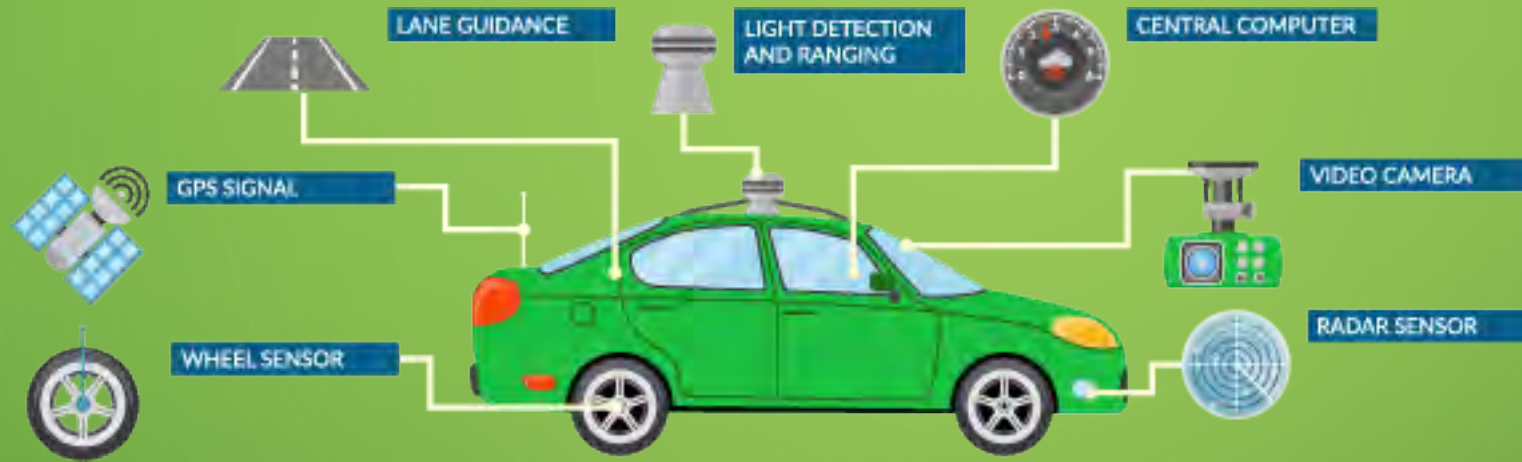
X

94% of crashes caused  
by human error



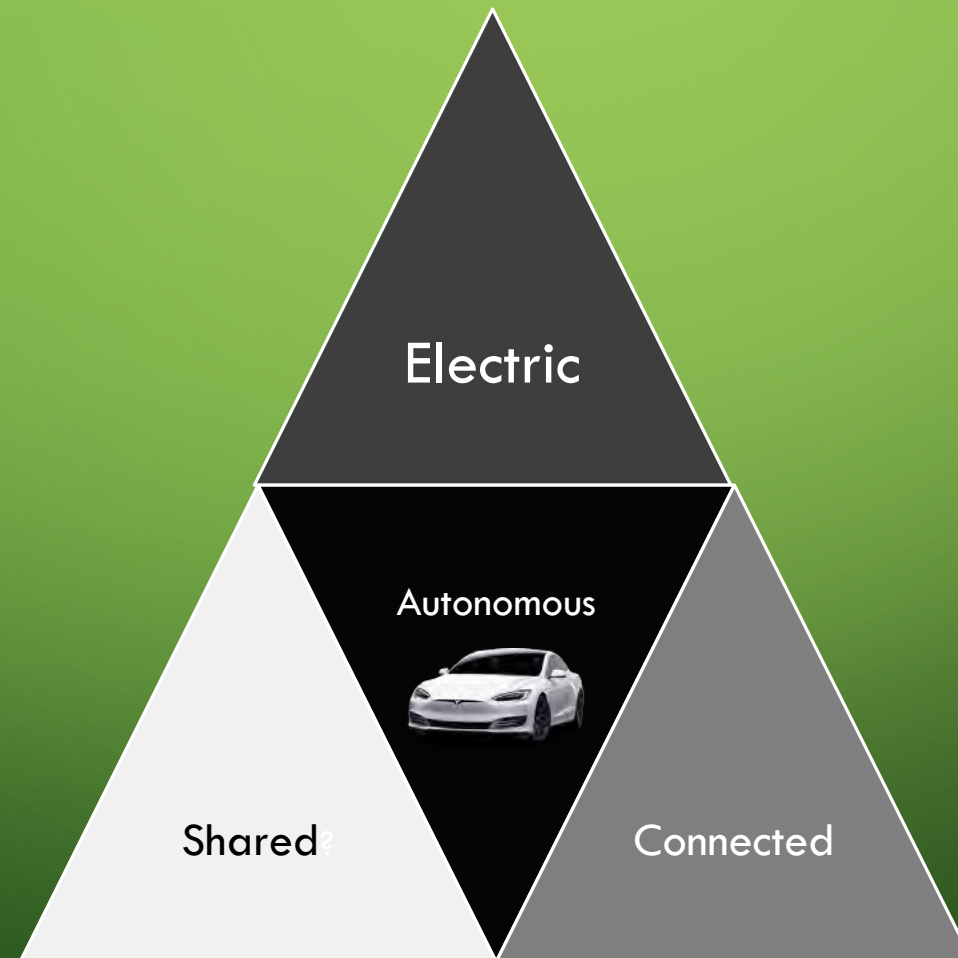
531 people killed by  
human drivers
















# AUTONOMOUS VEHICLES 101

# WHAT COMES WITH AUTONOMOUS VEHICLES?



# A/V LEVELS 0-5

Where  
we are  
today

		Steering and acceleration/ deceleration	Monitoring of driving environment	Fallback when automation fails	Automated system is in control
Human driver monitors the road	0 NO AUTOMATION				N/A
	1 DRIVER ASSISTANCE				SOME DRIVING MODES
	2 PARTIAL AUTOMATION				SOME DRIVING MODES
Automated driving system monitors the road	3 CONDITIONAL AUTOMATION				SOME DRIVING MODES
	4 HIGH AUTOMATION				SOME DRIVING MODES
	5 FULL AUTOMATION				





# WHAT DOES AN LEVEL 4-5 AUTONOMOUS VEHICLE SEE?

<https://waymo.com/tech/>



# FEDERAL VS. STATE ROLES

- NHTSA: Regulate automotive technologies and equipment, specifically the design, construction, or performance of a motor vehicle or motor vehicle equipment
- States:
  - Vehicle Registration requirements, including where and when A/V can be operated
  - Licensing for “drivers/operators”
  - Insurance requirements
  - Traffic regulations





WORKGROUP

## SHB 2970 (EXCERPT)

- Explore approaches to the modification of state policy, rules, and laws to further public safety and prepare the state for the emergence and deployment of autonomous vehicle technology. Areas for consideration may include, but are not limited to, manufacturer vehicle testing, vehicle registration and titling requirements, driver's license requirements, rules of the road, criminal law, roadway infrastructure, traffic management, transit, vehicle insurance, tort liability, cybersecurity, privacy, advertising, impacts to social services, and impacts to labor and small businesses;

WSTC to submit report by November 15<sup>th</sup> each year

# EXECUTIVE COMMITTEE



- Governor
- Insurance Commissioner
- DOL Director
- DOT Secretary
- WSP Chief
- Traffic Safety Commission Director
- State Chief Information Officer
- WSTC Chairman
- Four members from Senate
- Four members from House

## Executive Committee





# ALL SUBCOMMITTEE'S 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.



# SAFETY SUBCOMMITTEE FOCUS

- **Drivers:** Educating new and existing drivers on newer safety technology
- **Vulnerable users and hazards:** Vehicle recognition and response to hazards and vulnerable users
- **Law enforcement:** Knowledge of how to investigate and report on A/V involved crashes
- **Law enforcement and emergency responders:** Awareness of on-scene response to incidents/crashes involving driverless vehicles
- **Other:** Other safety, law enforcement and emergency responder concerns