

Alliance of Automobile Manufacturers

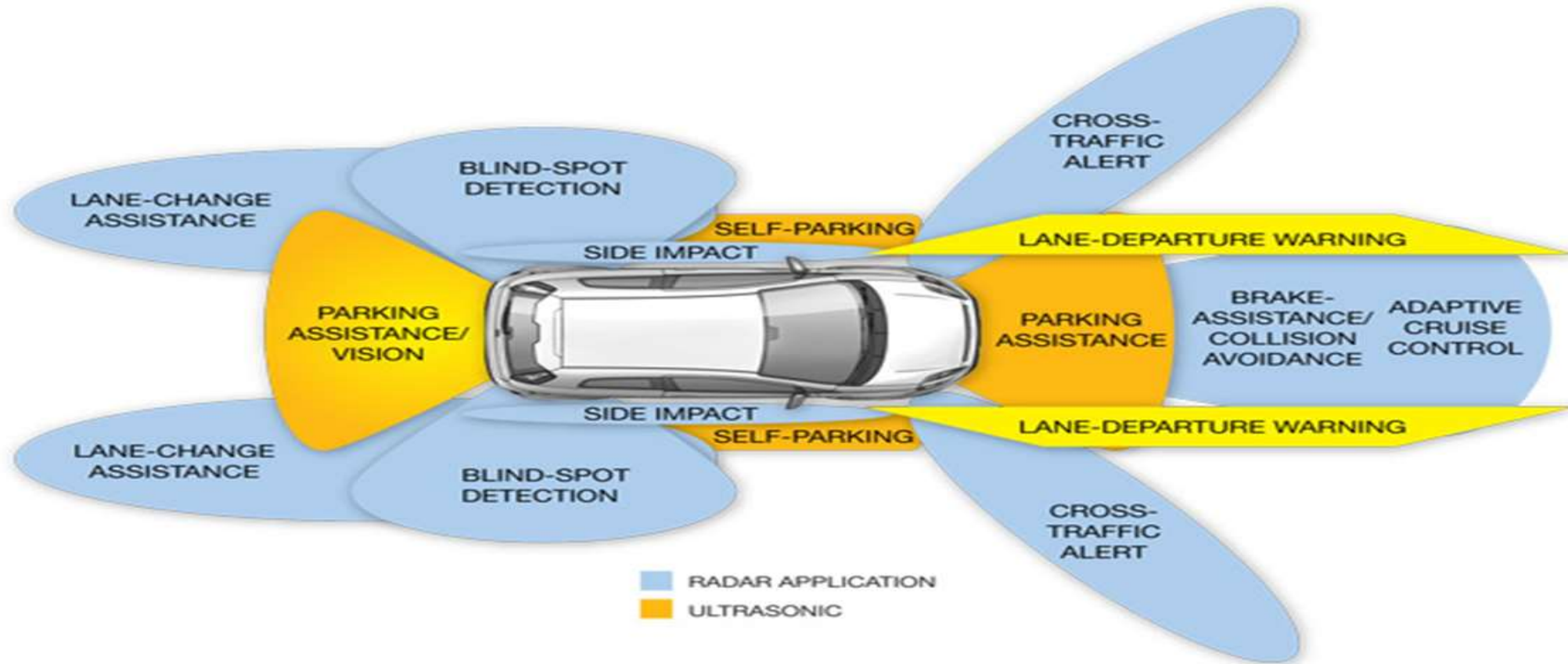
The Intersection of Insurance & Autonomous Vehicles

December 12, 2019

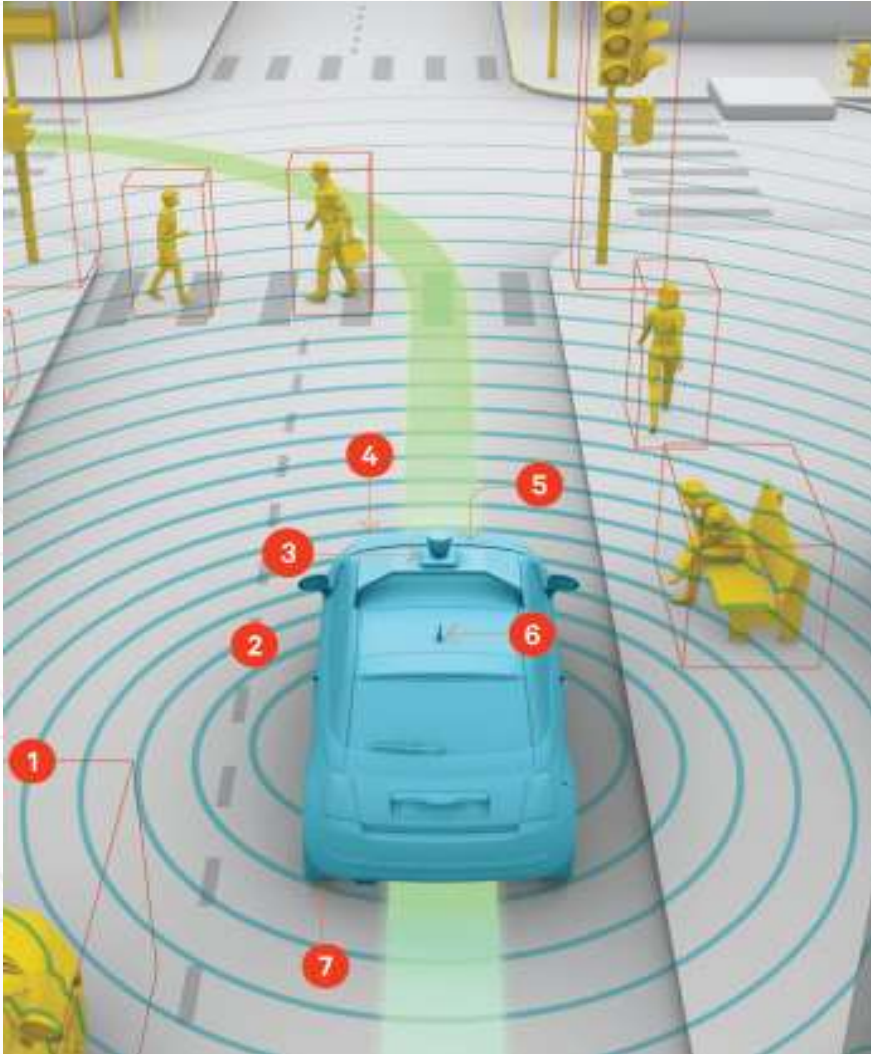
Leighton J. Yates
Director, State Affairs



AVs & Advanced Driver Assist Systems (ADAS)



AVs & Advanced Driver Assist Systems (ADAS)



- 1. Radar:** Detects objects nearby & in “blind zones”
- 2. Lane-keeping Cameras:** Measures contrast between road and lines
- 3. LIDAR:** Spinning lasers make a 360° real-time “map” around vehicle
- 4. Infrared Camera:** Detects objects ahead in the day & night
- 5. Visible Light Camera:** Detects & predicts movement of objects
- 6. GPS Navigation:** Advanced mapping tells the vehicle where to go
- 7. Wheel-mounted Sensors:** Measures velocity relative to close objects

AVs & Advanced Driver Assist Systems (ADAS)

Automation =

Increased Safety

Reduced Environmental Impact

Expanded Roadway Capacity

Enhanced Mobility

More Efficient Land Use



Traffic Fatalities 2016 - 2018

2016 - 37,461



94%

2017 - 37,133



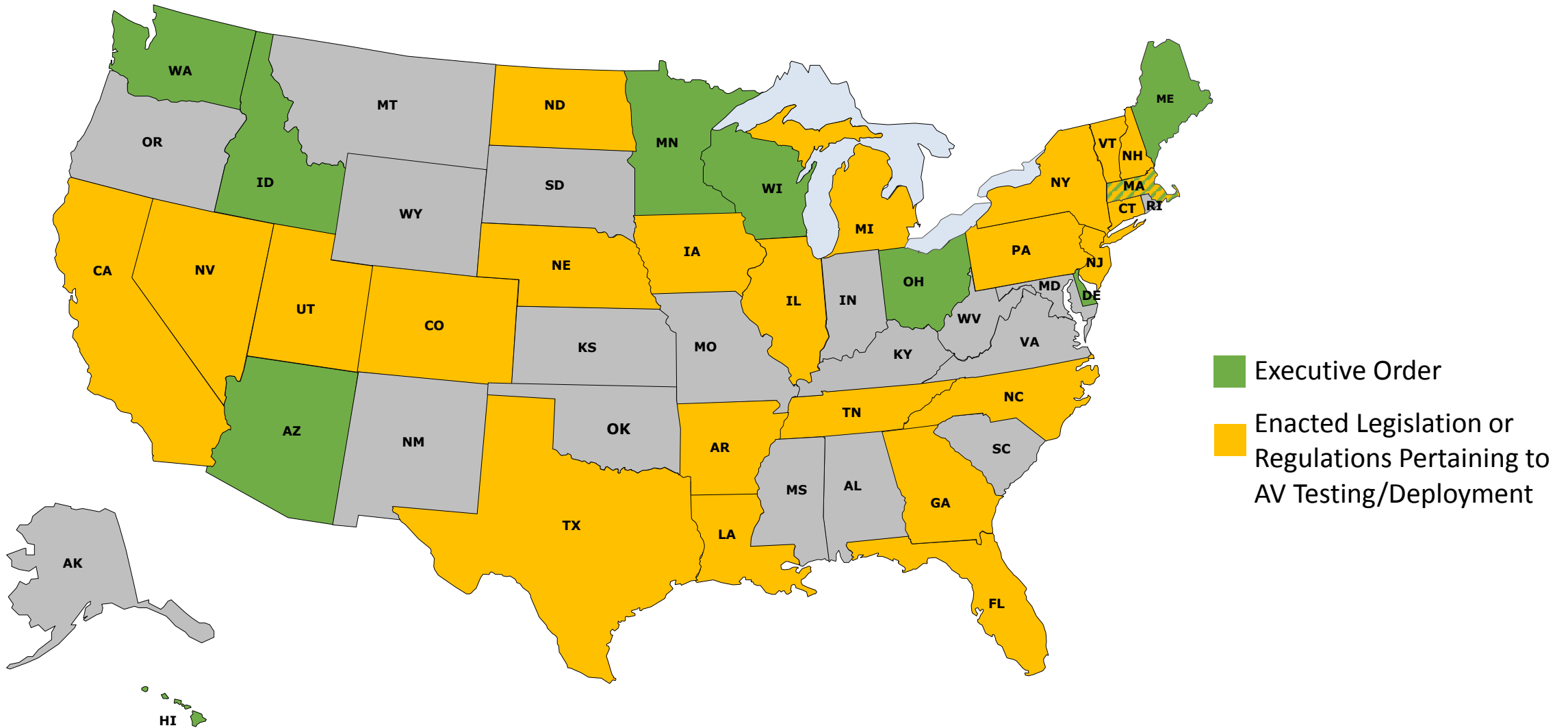
Due to

Human Error

2018 - 36,560



Current AV landscape (October 2019)



Federal Guidance on State/Federal Roles

Clear Delineation of Responsibilities

- States should **NOT** codify the FAVP
- FAVP maintained traditional roles

Federal government (DOT, NHTSA):

- Controls **design, construction, and performance** of vehicle
- Federal government regulates the vehicle

State governments:

- Control **insurance** licensing, registration, and law enforcement
- State governments regulate the driver



**So, If states have jurisdiction over
the regulation of insurance for AVs,
what's next?**



States Should “Pump the Brakes” on AVs & Insurance

- AV technology is in its infancy still
- First uses will be commercial applications:
 - Fleets
 - Last mile
 - Closed campuses
 - Ride-sharing
 - Geo-fenced areas
 -NOT personal passenger vehicle ownership
- Commercial Insurance vs PPI



Insurance Orgs Agree

“Despite the hype, it will be decades before an autonomous car functions without some sort of operator if we ever reach that point.”

-Jimi Grande, Senior Vice President of Government Affairs
National Association of Mutual Insurance Companies



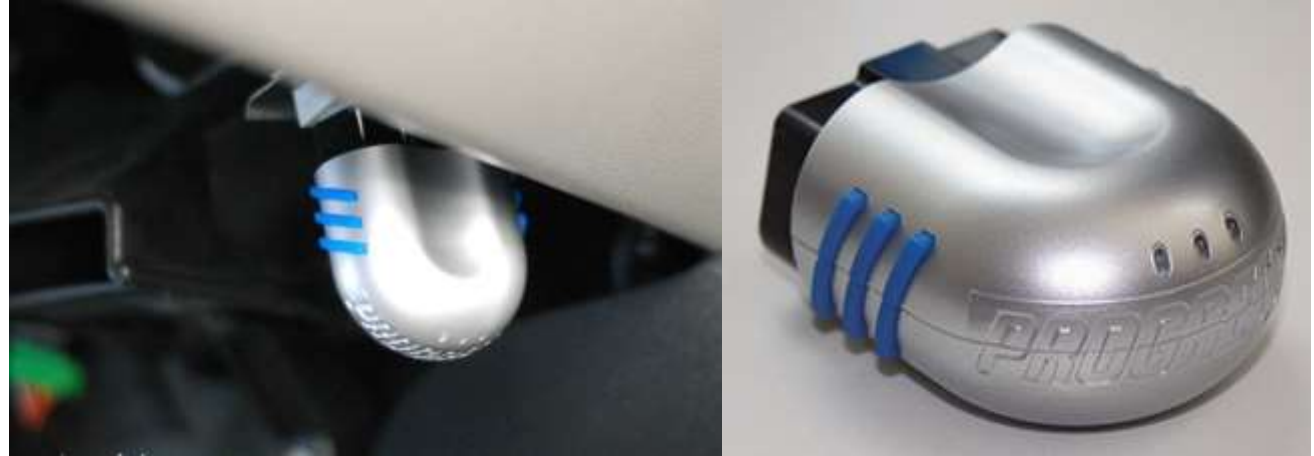
“I think insurers are right now very much in “learn about this” mode, “learn everything that they can” mode. You’re talking about changing the nature of the driving risk, so that’s going to be a very significant change for the auto insurance industry.”

- Bob Passmore, Senior Director of Personal Lines
Property Casualty Insurers Association of America



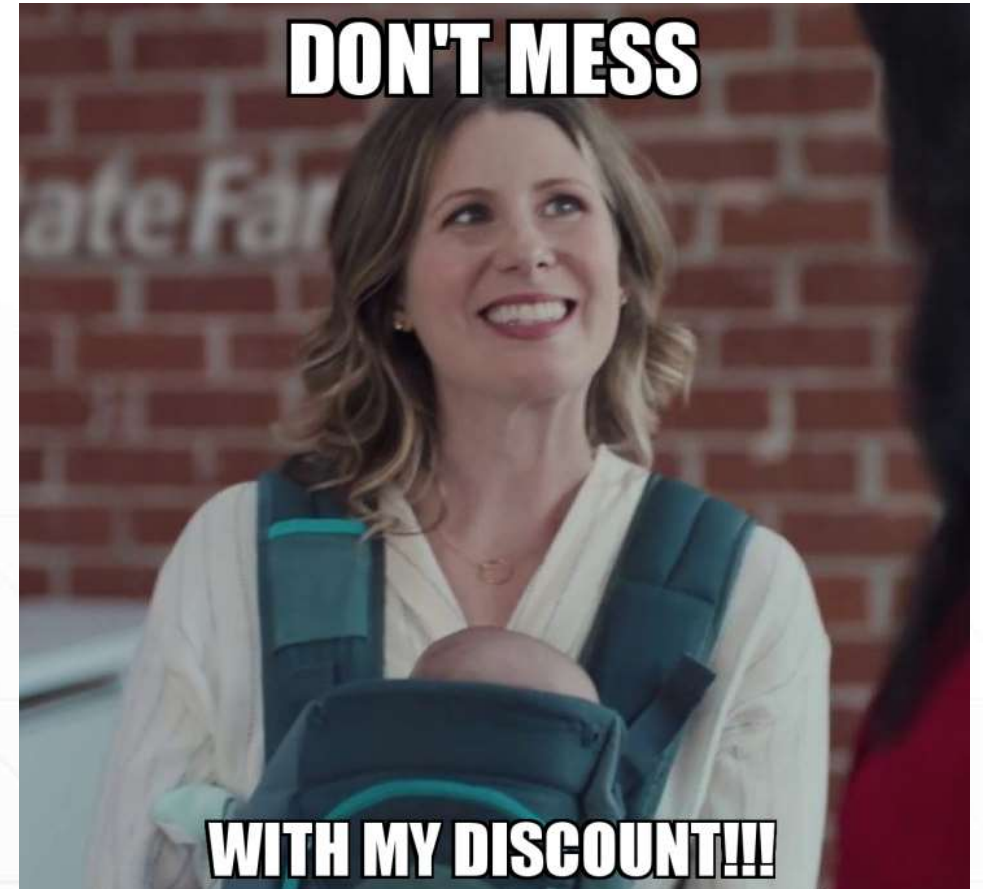
Not enough driver data? Not so fast...

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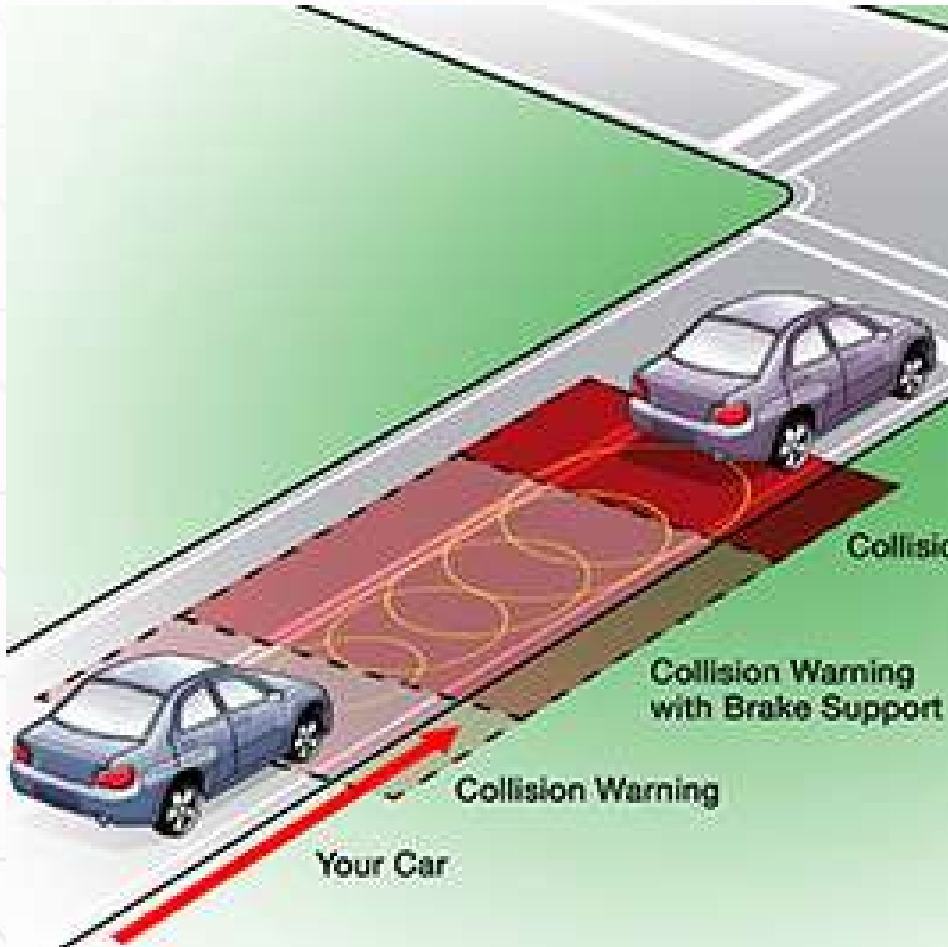


Not enough driver data? Not so fast...

- Safe Driver monitoring programs provide plenty of real-time driver data directly to insurance companies
- Many applications
 - Dongle (OBD II Port)
 - Sensors placed within vehicle
 - Smart-phone apps
- Automakers are lending a helping hand already
 - General Motors
 - Hyundai
 - Honda



Real-world Benefits of ADAS – Forward Collision Warning



Forward collision warning

- ↓ 27% Front-to-rear crashes
- ↓ 20% Front-to-rear crashes with injuries
- ↓ 9% Claim rates for damage to other vehicles
- ↓ 16% Claim rates for injuries to people in other vehicles

Forward collision warning plus autobrake

- ↓ 50% Front-to-rear crashes
- ↓ 56% Front-to-rear crashes with injuries
- ↓ 13% Claim rates for damage to other vehicles
- ↓ 23% Claim rates for injuries to people in other vehicles

*Source – Insurance Institute of Highway Safety (IIHS) & Highway Loss Data Institute (HLDI) study on ADAS and Automated Technologies (June 2019)



Real-world Benefits of ADAS – Lane Departure Warnings & Blind Spot Detection



Lane departure warning

- ↓ 11% Single-vehicle, sideswipe and head-on crashes
- ↓ 21% Injury crashes of the same types

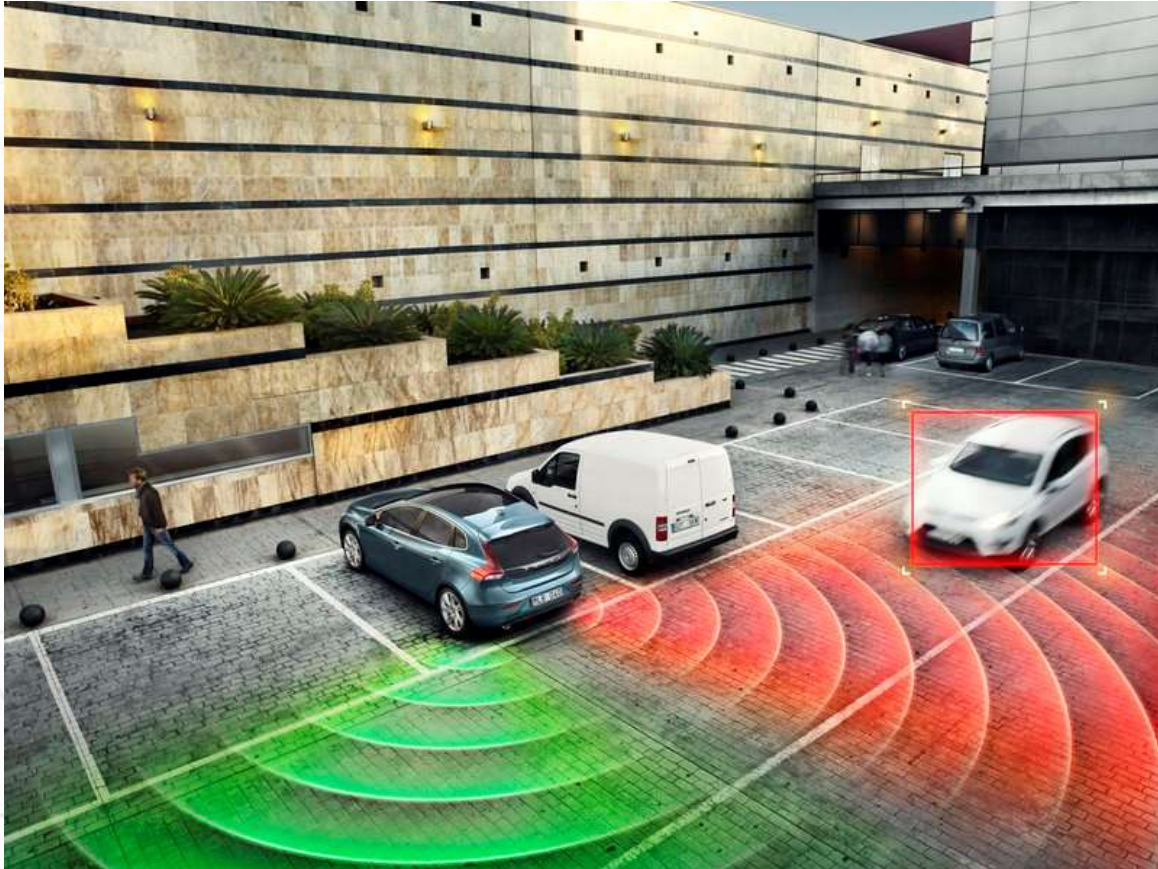
Blind spot detection

- ↓ 14% Lane-change crashes
- ↓ 23% Lane-change crashes with injuries
- ↓ 7% Claim rates for damage to other vehicles
- ↓ 8% Claim rates for injuries to people in other vehicles

*Source – Insurance Institute of Highway Safety (IIHS) & Highway Loss Data Institute (HLDI) study on ADAS and Automated Technologies (June 2019)



Real-world Benefits of ADAS – Rear Automatic Braking



Rear automatic braking

- ↓ 78% Backing crashes (when combined with rearview camera and parking sensors)
- ↓ 12% Claim rates for damage to the insured vehicle
- ↓ 30% Claim rates for damage to other vehicles

Rearview cameras

- ↓ 17% Backing crashes

Rear cross-traffic alert

- ↓ 22% Backing crashes

*Source – Insurance Institute of Highway Safety (IIHS) & Highway Loss Data Institute (HLDI) study on ADAS and Automated Technologies (June 2019)



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Real-world Benefits of ADAS & AVs

- Vehicles with ADAS, and eventually AVs, will have an impact on drivers
- While more advanced technology may lead to a more expensive repairs
 - However, consumers have not indicated that having a safer vehicle is a deterrent
- Concerns with over-reliance on technology from Insurers
 - IIHS surveys of vehicle owners with ADAS actually reported SAFER driving habits
- The time will come when AVs and personal vehicle insurance policies will need addressing, but now is not the time.

