

## **The Future of Roads and Road Safety**

Canadian Council of Motor Transport Administrators

Annual General Meeting

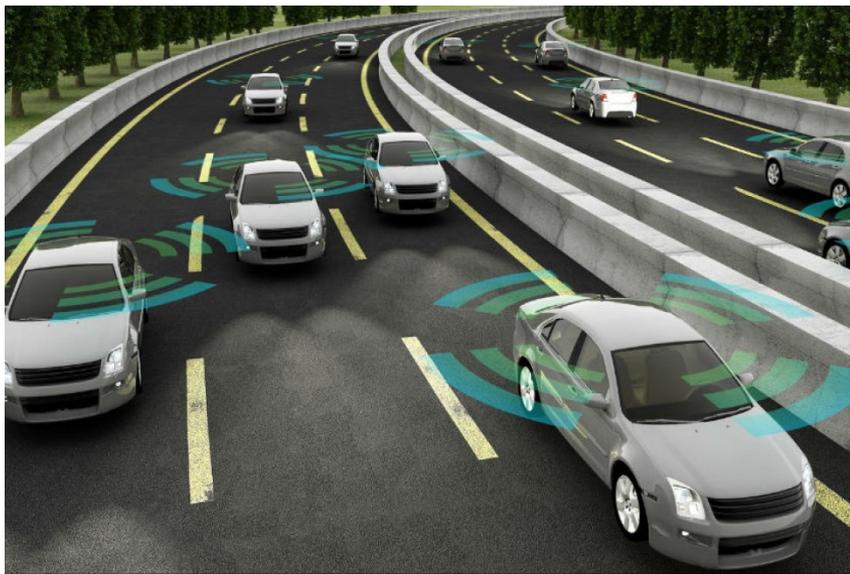
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# The insurers' view of automated vehicles

Automated vehicles will affect road safety in four ways.

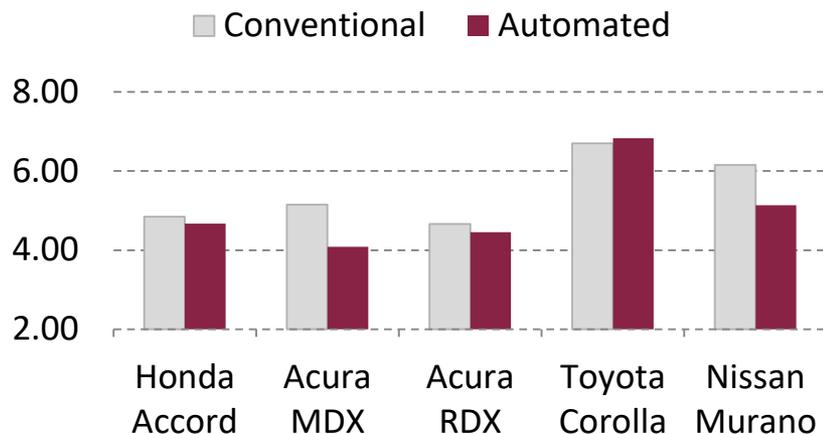


- There will be **fewer collisions** but because of the technology in automated vehicles, **these collisions will be more expensive**.
- Vehicles will have **new risks**.
- Vehicles will **record significant amounts of data**.
- There will be a **shift in the party responsible for collisions** from the human driver to the automated technology.

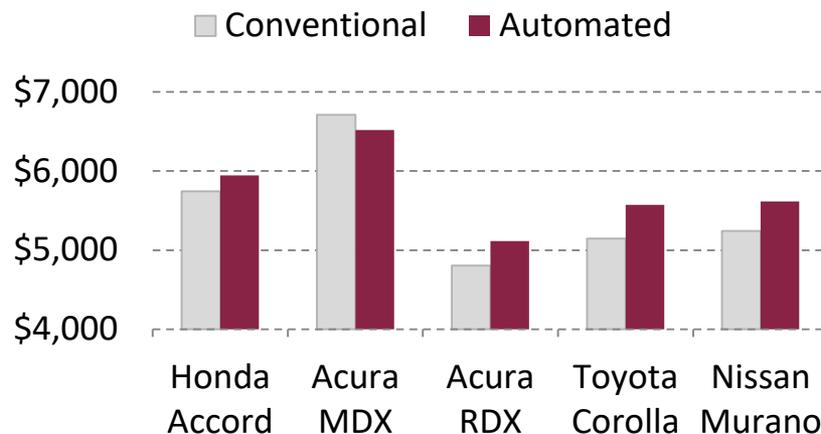
# The insurers' view of automated vehicles

Preliminary claims data shows that vehicles with automated capabilities are in fewer collisions but those collisions are more expensive.

**Claim Frequency Rate  
(per 100 vehicles)**



**Claim Severity  
(Average Claim Cost)**



Data from IBC Canadian Loss Experience Automobile Rating (CLEAR) database. The "automated" vehicles have forward collision warning systems and automatic braking. The "conventional" vehicles do not have either of these features.

# The insurers' view of automated vehicles

Insurers are promoting the use of vehicles with automated capabilities.

## ▪ Insurer discounts to customers

- Automatic emergency braking
- Electronic stability control
- Blind spot warning detection devices
- Collision preparation systems
- Heads-up displays

## ▪ Insurer investments

- Telematics devices
- Partnerships with vehicle manufacturers
- Partnerships with technology providers

*Discounts and investments are based on a scan of insurer practices in Canada and the United States.*

# New driving risks

People using automated vehicles need to consider risks that are not commonly associated with operating a vehicle.

## ▪ Traditional risks

- Driving behaviour
- Road conditions
- Weather conditions
- Vehicle conditions

## ▪ New risks

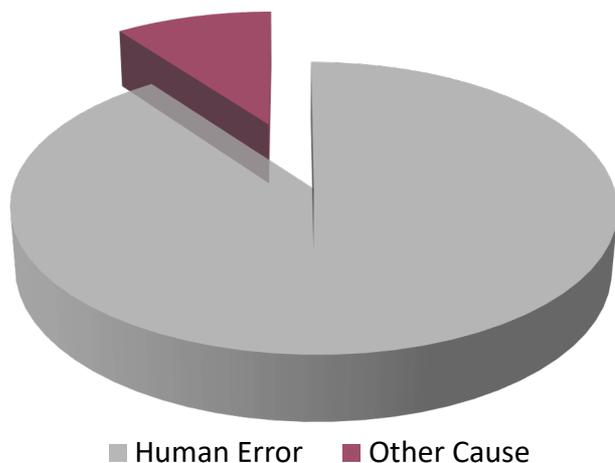
- Software and network failure
- Programming choices
- Hacking and cybercrime
- Failure to install or update software

*New risks are from the European Parliamentary Research Service, A Common EU Approach to Liability Rules and Insurance for Connected and Autonomous Vehicles, February 2018.*

# Change in party responsible for a collision

With automated vehicles coming to Canada's roads soon, are the provincially-prescribed auto insurance policies and supporting legislation adequate?

**Current Primary Cause of Motor Vehicle Collisions (Estimate)**



- Vehicle liability coverage is based on human error, not product malfunction.
- That is because human error is the primary cause of more than 90% of collisions.
- Automated vehicles will shift this distribution to the vehicle's manufacturer and/or the technology provider.
- **There will likely be more product liability claims.**

*Source: IBC graph with data based on estimate from the National Highway Traffic Safety Administration.*

# A need for new auto insurance

Product liability claims are more complex and take longer to resolve than typical vehicle collision liability claims.

- **Council of Ministers Responsible for Transportation and Highway Safety**

*“Changes to insurance coverage and liability by level of automation will be a continuing challenge. As we anticipate that these vehicles will result in fewer automobile collisions, over time, we will need clear ways to identify who is responsible in a collision. It is possible that liability could shift from the driver to the automobile manufacturer or technology/software provider. This issue is even more challenging when a vehicle is partially automated and the automobile manufacturer or technology/software provider may share liability with the driver. **Amendments to provincial legal frameworks for vehicle liability and insurance will need to reflect the unique risks associated with [automated vehicles].**”*

# Auto insurance for automated vehicles

A single insurance policy covering driver negligence and the automated technology.

## ▪ Details

- Aligns the claims process for automated vehicles with claims involving conventional vehicles.
- The automated vehicle's insurer would compensate injured people if the automated vehicle caused a collision, regardless of whether the human operator or automated technology was in control.
- The insurer covers collisions caused by a cyber breach but limits coverage for failure to install safety-critical software updates.

## ▪ Supporting Components

- Upon having paid a liability claim but subject to a deductible, the insurer could try to recover the payment from the vehicle manufacturer or technology provider.
- During the recovery proceedings, the insurer and vehicle manufacturer or technology provider would have access to a mandatory binding arbitration process to settle any disputes.

# Auto insurance for automated vehicles

A data-sharing arrangement with vehicle manufacturers and vehicle owners and/or insurers.

## ▪ Details

- Helps determine a collision's cause, whether the vehicle was in manual or automated mode at the time of the collision, and the vehicle operator's interaction with the automated technology.
- The data sharing would facilitate the liability claim.

## ▪ Safety Assessment for Automated Vehicles

- Transport Canada wants manufacturers of automated vehicles to have processes in place to enable data sharing with vehicle owners/operators when requested, for example, to facilitate insurance claims.

# Auto insurance for automated vehicles

## Contact information

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