



# Governmental Committee

July 2014

Detroit Michigan

# Legislative and Regulatory Challenges for the Driverless Future



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

## COMMITTEE MEMBERS

STEPHEN REGAN, CHAIR  
JANET CHANEY, VICE-CHAIR  
DAVE McCLUNE  
HERB LIEBERMANN  
RANDY HANSON  
HOWARD BATCHELOR  
JEANNIE SILVER  
RICK TUURI  
RON REICHEN  
STEVE DANIELS  
TIM ADELMANN  
BOB SMITH  
CHRIS DONNELLY  
BRUCE HALCRO  
BRANDON THOMAS  
DARRELL AMBERSON

- Regan Strategies
- Cave Creek Business Development
- California Autobody Association
- LKQ Corp
- Allstate Insurance Company
- Georgia Collision Industry Assoc.
- CARSTAR, Mundelein
- AudaExplore, a Solera Company
- Precision Body and Paint
- LaMettry's Collision
- ABRA Auto Body & Glass
- Storm Appraisal
- Bodyworks Collision
- Capitol Collision
- GMG EnviroSafe
- LaMettry's Collision



**COLLISION INDUSTRY**  
CONFERENCE

**Governmental  
Committee**

July 2014

Please indicate which stakeholder group you represent.

- A. Those who repair cars
- B. Those who support the repair industry

[www.C3PING.Com](http://www.C3PING.Com) 5732



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

## 3 Segments

1. Evolution of Autos and The Laws that Govern Them
2. How governments are responding to Automated Vehicles
3. Issues & Concerns for the CIC body



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

What was the first law ever passed in the US that affected automobiles between 1900 and 1910?

- A. Licensed Drivers – MA
- B. Headlights – NJ
- C. Registration Fee – NY
- D. Steering Wheel - CA



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

What speed was established as the first legal speed limit and where?

(1900 to 1910)

- A. Chicago, Illinois 20 mph
- B. Connecticut, 12 mph
- C. California, 5 mph on Freeways
- D. Massachusetts, 15 mph



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

Why did the Albany, NY legislature pass a law requiring speeding fines to go to the state treasury? (1910 to 1920)

- A. They wanted the money
- B. So they could print a single uniform statewide ticket
- C. Excessive speed trap abuse?
- D. Only state troopers had radar guns



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014



By 1935 how many states required a driver license? (1920 to 1940)

- A. 12
- B. 27
- C. 39
- D. All of them



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

# THE HORSELESS AGE

A MONTHLY JOURNAL

PUBLISHED IN THE INTERESTS OF THE MOTOR VEHICLE INDUSTRY.

VOLUME ONE. NUMBER ONE.

A COMPILATION,

SHOWING THE

MOTOR VEHICLES, VEHICLE MOTORS AND SYSTEMS OF

PROPELLING AND CONTROLLING VEHICLES

BROUGHT OUT IN THE UNITED STATES

1894 AND 1895.

## PEOPLE • PRODUCT • PROCESS

# AUTOMOTIVE Industries

Vol. 193 • Issue 1

ai-ndso.com • automotiveus • peace

Making the right  
connections for  
electric vehicles

**3D printing**  
goes from novelty to  
"disruptive technology"

New pony  
car a technology  
thoroughbred

Meeting the  
growing demand for  
**polypropylene**

Evolution  
adds brains to  
assembly line

The **connected**  
car of the future

SUBSCRIBE • RENEW visit ai.com.ai



Kevin Link, SVP, GM China, Verizon Telematics.

"Gen Y buyers in particular will come to expect remote updates in their vehicle as opposed to being inconvenienced with a drive to the dealership. The future of the connected car will extend beyond the benefits to the driver and include advantages for broader society." Page 14



## COLLISION INDUSTRY CONFERENCE

## Governmental Committee

July 2014

First Segment

# Evolution of Autos and The Laws that Govern Them



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

## First Segment

## Evolution of Autos and the Laws that Govern Them

**1900 - 1920** Government oversight was focused almost exclusively on registration, licensing, and rules of the road

**1921 - 1950** With the exception of the Federal Highway Act of 1921, Governments adopted an “Internet” approach to governing autos - HANDS OFF

**1951 - 1970** The Federal government increasingly adopted an aggressive approach to regulate automobiles with a focus on personal safety and environmental concerns

# Significant Moments in Automobile Regulation

**1963** - The Clean Air Act of 1963, as amended in 1970, and further amended in 1990 created a series of regulatory requirements for manufacturers that are still in use.

**1964** - Ralph Nader publishes “Unsafe at Any Speed” critical of auto manufacturers.

**1966** - President Lyndon Johnson signs the National Traffic and Motor Vehicle Safety Act and the Highway Safety Act making the federal government responsible for setting and enforcing safety standards for cars and roads.

**1970** - The National Highway Transportation Safety Administration (NHTSA) is created by the US Department of Transportation under the authority of NTMVSA .

# Second Segment

## How governments are responding to Automated Vehicles



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

Second Segment **How governments are responding to  
Automated Vehicles**

**INTERNATIONAL** EFFORTS ON AUTOMATED  
VEHICLES

**FEDERAL** EFFORTS ON AUTOMATED VEHICLES

**STATE** EFFORTS ON AUTOMATED VEHICLES



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

## Second Segment **How governments are responding to Automated Vehicles**

### **INTERNATIONAL Efforts on Automated Vehicles**

**1968** - United Nations Convention of Road Traffic, Article 8, stipulates: "Every driver shall at all times be able to control his vehicle or to guide his animals."

**2014** - An amendment sponsored by Germany, Italy, and France was agreed to in April by the U.N. Working Party on Road Traffic Safety. It would allow AV's if the system "can be overridden or switched off by the driver" and a driver is present at all times.

*If the amendment passes all hurdles then the 72 countries party to the convention would adopt the amendment into their laws. The convention does not include the United States, Japan or China.*



## Second Segment **How governments are responding to Automated Vehicles**

### **INTERNATIONAL Efforts on Automated Vehicles**

**2014** - Dutch government's infrastructure minister, Melanie Schultz van Haegen, is investigating legal changes needed to allow self-driving cars in the Netherlands, and plans to enact a law by early 2015 allowing tests of self-driving cars in the Netherlands by next year, and self-driving trucks by 2019.

**2014** - Swedish Government and Volvo are conducting a joint operation with self driving vehicles.....

**2013** - German car manufacturers are concerned about losing what they consider to be their position as the leader in technological advances in automobile manufacturing

## Second Segment **How governments are responding to Automated Vehicles**

### **INTERNATIONAL Efforts on Automated Vehicles**

**NHTSA** is charged with researching the AV technology and making determinations on whether/how/when they will be subject to FMVSS

#### **“Preliminary Statement of Policy Concerning Automated Vehicles”**

- \* Description of developments in automated driving
- \* Explanation of NHTSA’s five (5) levels of automation
- \* Recommendations to states considering legislation.



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

## Second Segment **How governments are responding to Automated Vehicles**

### **FEDERAL Efforts on Automated Vehicles**

“Preliminary Statement of Policy Concerning Automated Vehicles”

**Three distinct streams of technological are occurring simultaneously:**

- (1) in-vehicle crash avoidance systems that provide warnings and/or limited automated control of safety functions;
- (2) V2V communications supporting crash avoidance applications;
- (3) self-driving vehicles.

## Second Segment **How governments are responding to Automated Vehicles**

### **FEDERAL** Efforts on Automated Vehicles

#### **“Preliminary Statement of Policy Concerning Automated Vehicles”**

NHTSA's five (5) levels of automation

- (1) LEVEL - 0 No Automation
- (2) LEVEL - 1 Function Specific Automation
- (3) LEVEL - 2 Combined Function Automation
- (4) LEVEL - 3 Limited Self Driving Automation
- (5) LEVEL - 4 Full Self Driving Automation

## Second Segment **How governments are responding to Automated Vehicles**

### **FEDERAL** Efforts on Automated Vehicles

#### **“Preliminary Statement of Policy Concerning Automated Vehicles”**

NHTSA’s recommendations to states considering legislation

- (1) Licensing Drivers to Operate Self-Driving Vehicles for Testing
- (2) Regulations Governing Testing of Self-Driving Vehicles
- (3) Principles for Testing of Self-Driving Vehicles
- (4) Operation of Self-Driving Vehicles for Purposes Other than Testing

## Second Segment **How governments are responding to Automated Vehicles**

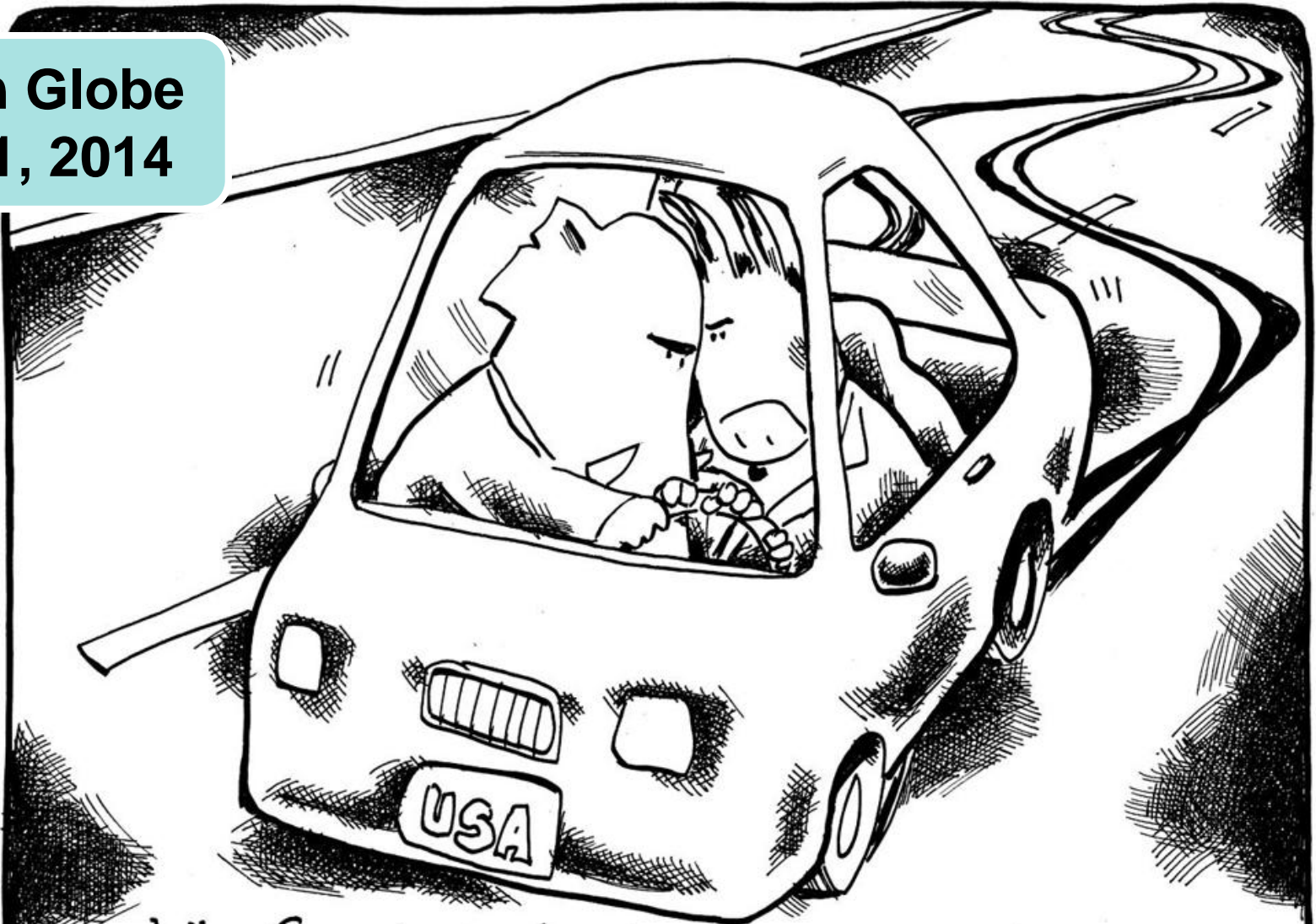
### **FEDERAL Efforts on Automated Vehicles**

#### **US DOT - Research and Innovation Technology Administration**

SINCE 2009 RITA has been researching Vehicle-to-Vehicle Communications (V2V) and more recently Vehicle-to-Infrastructure Communications (V2I) with a primary goal of reducing accidents and injury to people.

Today, federal government research, regulation, rule making, and policy also includes environmental concerns, commercial transport, and elderly and handicapped assist. The FCC has even set aside a specific bandwidth to accommodate V2V and V2I communications.

**Boston Globe  
July 21, 2014**



Why Google is developing a car with  
no gas pedal, brake pedal or steering wheel.

**TOM SWICK**

UNIVERSAL VERSION  
©2014 THE WASHINGTON POST

7-14-14

WE'LL TAKE ONE  
WITH CHILD SEATS.-



## Second Segment **How governments are responding to Automated Vehicles**

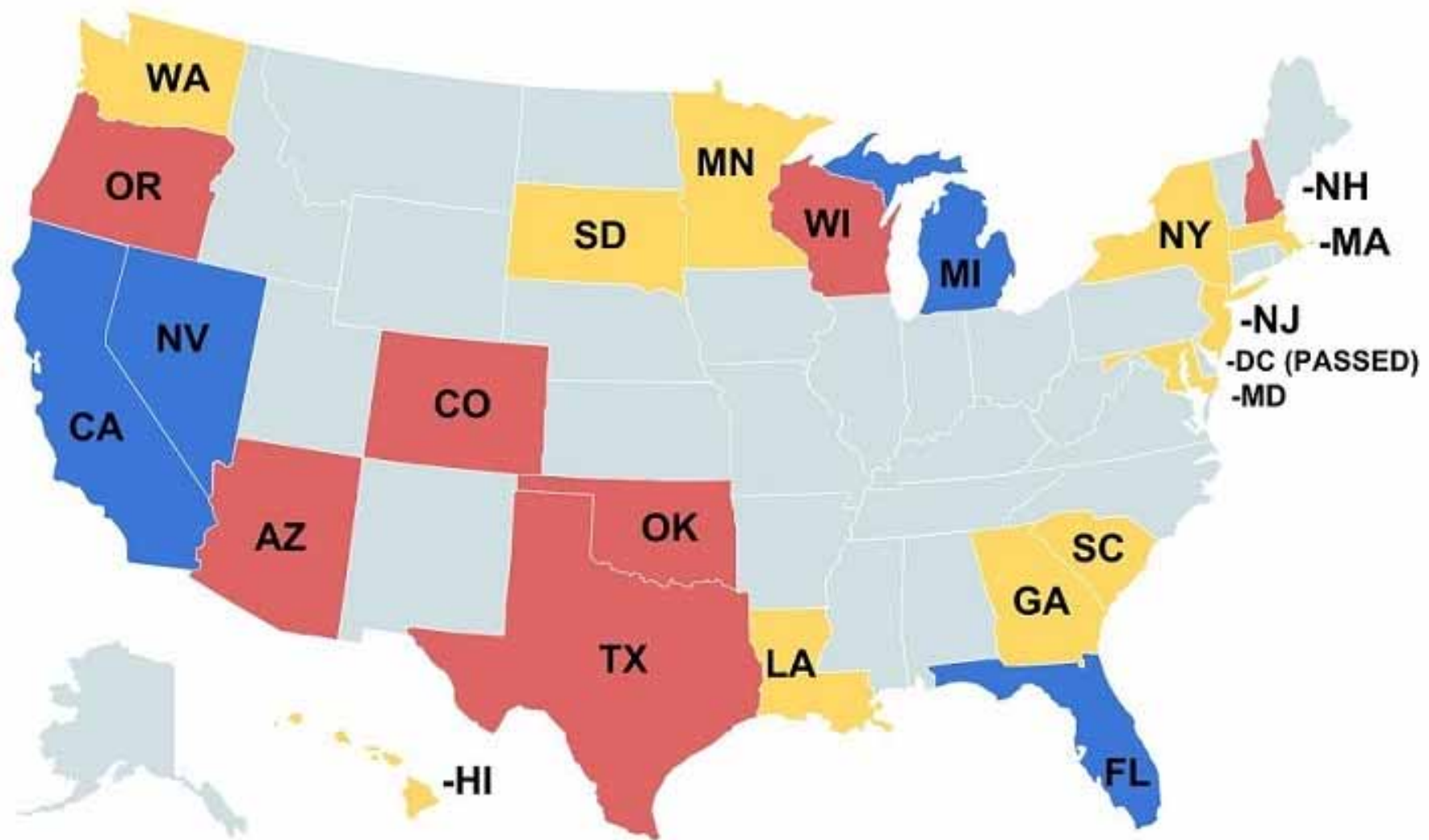
### **STATES** Efforts on Automated Vehicles

“Currently Four (4) States and the District of Columbia have passed laws governing AV, and dozens have considered them”

#### States With Laws For Automated Vehicles

- (1) CALIFORNIA
- (2) NEVADA
- (3) FLORIDA
- (4) MICHIGAN
- (5) DISTRICT OF COLUMBIA





Current Status

Passed

Under Consideration

Failed

## Second Segment **How governments are responding to Automated Vehicles**

### **STATES** Efforts on Automated Vehicles

#### **CALIFORNIA**

**Passed on September 25, 2012.** The law defines autonomous vehicle, technology and operator. Requires rule making before 2015. Required manufacturer of autonomous technology to provide written disclosure to purchaser information collected through technology. Addresses liability of original vehicle manufacturer if vehicle is converted by third party and/or was converted by autonomous technology.



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

## Second Segment **How governments are responding to Automated Vehicles**

### **STATES Efforts on Automated Vehicles**

#### **NEVADA**

**Passed on June 17, 2011.** Defines autonomous vehicles and direct state to adopt rules for licensing, insurance, safety standards, and testing. Allows texting and cell phone calls.

**Passed on June 2, 2013.** Incorporate and amend DMV rules, addresses liability of original manufacturer when third party installed autonomous technology, adds "except in case of emergency" to the statement "that a person is not required to actively drive an autonomous vehicle."

## Second Segment **How governments are responding to Automated Vehicles**

### **STATES** Efforts on Automated Vehicles

#### **FLORIDA**

**Passed April 16, 2012.** Defines autonomous vehicle and autonomous technology. Requires current valid drivers license to operate autonomous vehicle. Addresses liability of original vehicle manufacturer when third party installs autonomous technology, directs state to prepare report for legislature.

**Passed May 29, 2013.** Passed May 29, 2013. Exempts operators while in autonomous mode for current prohibition on texting.

## Second Segment **How governments are responding to Automated Vehicles**

### **STATES** Efforts on Automated Vehicles

#### **MICHIGAN**

**Passed December 26, 2013.** Defines autonomous vehicle, autonomous technology, autonomous mode, and upfitter. Permits testing under certain conditions, addresses liability of the original manufacturer of a vehicle when third party has installed an automated system. Directs state to report by February 1, 2016.

**Passed December 27, 2013.** Provides additional liability protection for manufacturers and subcomponent system producers.

## Second Segment **How governments are responding to Automated Vehicles**

### **STATES** Efforts on Automated Vehicles

#### **DISTRICT OF COLUMBIA**

**Passed January 23, 2013.** Defines autonomous vehicle, requires a human driver be able to take control at any moment, restricts conversion to recent vehicles, and addresses liability of the original manufacturer of a converted vehicle. Passed Congressional review in April of 2013.



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

# Third Segment

## Issues & Concerns for the CIC body



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

## Third Segment

## Issues & Concerns For the CIC body

**INSURERS, Manufacturers, OES Suppliers, A/M & Salvage, Collision Repairers, and the Consumer**

### Issues of Concern for Insurers

1. Determining labor cost for repairs to high tech vehicle
2. Garage Keeper policy premiums adjustments (**repairer**)
3. Accuracy of appraisals determining costs for repairs
4. Legally accessing “black box” or boxes or other data created by the enhanced technology



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014



## Third Segment

## Issues & Concerns For the CIC body

Inurers, **MANUFACTURERS**, OES Suppliers, A/M  
& Salvage, Collision Repairers, and the Consumer

### Issues of Concern for OE Manufacturers

1. Liability Issues - some are addressed in current laws.
2. Will certification programs be required?
3. Who will take the lead in R & D and/or manufacture of AV: Auto manufacturers or technology companies?
4. Will automated vehicles be affordable?



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

## Third Segment

## Issues & Concerns For the CIC body

**Insurers, Manufacturers, OES SUPPLIERS, A/M & SALVAGE, Collision Repairers, and Consumers**

### Regulatory Issues of Concern for OES Suppliers, A/M & Salvage

1. OES liability - addressed in one law.
2. OES: Who owns the data: Created and Collected?
2. Will aftermarket safety related items be considered appropriate during a repair?
3. Will salvaged safety related items be considered appropriate during a repair?



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

## Third Segment

## Issues & Concerns For the CIC body

**Insurers, Manufacturers, OES Suppliers, A/M & Salvage, COLLISION REPAIRERS, and Consumers**

### Regulatory Issues of Concern for Repairers

1. Liability after completed repair?
2. Release of “black box” data to other than owner?
3. Determining use of OEM, used, rebuilt, salvage, and aftermarket items associated with technology for AV?
4. Will a different labor rate be needed for repair of AV?
5. Will new tools be needed for repair of AV's?
6. Will training be available to repair AV's and by whom?
7. Will IP's ensure estimate capabilities are up to date?
8. Will cost of repairs increase?
9. If so will it result in increased total losses?

## Third Segment

## Issues & Concerns For the CIC body

**Insurers, Manufacturers, OES Suppliers, A/M & Salvage, Collision Repairers, and **the CONSUMER****

### Regulatory Issues of Concern for Consumers

1. Will driver liability increase or decrease?
2. Will insurance cost increase?
3. Will repair options decrease?
4. Will special license be required?
5. Will AV be affordable?



**COLLISION INDUSTRY**  
CONFERENCE

Governmental  
Committee

July 2014

# Legislative and Regulatory Challenges for the Driverless Future

## CONCLUSIONS:

**Sooner than Later**

**Benefits Trump Risk**

**Impact All Segments of CIC**

**Better to Be Prepared**



**COLLISION INDUSTRY**  
CONFERENCE

July 2014

Governmental Committee



THANK YOU

## ACKNOWLEDGEMENTS

- 1949 Geneva and 1968 Vienna Conventions on Road Traffic
- Tom Toles, Toles Cartoons, 2014
- The Horseless Age, and its successor Automotive Industries magazine
- US Department of Transportation, Research and Innovation Technology Administration, Intelligent Transport Systems
- US Department of Transportation, National Highway Transportation Administration
- Google, Inc

Special Thanks to the research of :

***Bryant Walker Smith, a fellow at the Center for Internet and Society at Stanford Law School and the Center for Automotive Research at Stanford University***