

USERS. VEHICLES. INFRASTRUCTURE.

Session 22: Legal and Policy Approaches: Finding the Right Balance on Legislating for Automated Vehicles

- Two-part Session: Legal Presentation & Discussion, Policy Presentation & Discussion
- Legal
 - Nine organizations gave a “lightning” description of their AV activities and provided their one policy wish Vehicle/supplier (DENSO)
 - Organization speakers rotated around nine tables of participants to provide more details and answer questions
- Policy
 - Panel of four legislators discussing AV policy in their state
 - Moderator-led table discussions of eight AV policy questions

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Summary of Breakout Discussion:

- AVs are a positive development for safety, mobility, convenience
- Data should be collected in a structured, systematic matter
- Need for high-level system management, new taxonomy roads (urban/rural), Scenario planning for options
- Legislation should serve as building block, avoid overregulation (technology advancing faster than ability to legislate)
- Need to balance urge to develop AVs with serving the public
- Relationship amongst policymakers, experts, law enforcement, public critical

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Recommended Action Items:

- Better education for policymakers, public
 - Third year policy session, third year this has been a priority
- Integrated process for policymakers to work with each other across government levels and through public-private working groups
 - Each group is studying individually but little coordination
- Look to the future but focus on the near-term
 - Tendency to focus on level 5 AVs, but intermediate levels offer advantages as well

Autonomous Vehicle Working Group

The AVWG The Working Group established fall 2014

- consists of 16 jurisdictional members, 2 Canadian reps, NHTSA and AAMVA staff
- NHTSA funded project for first 2 years, now AAMVA funded

Three sub-groups focusing on issues impacting:

- Drivers: Licensing & Testing;
- Vehicles: Titling & Registration; and
- Law Enforcement: Concerns & Challenges

1. Provided significant input for the NHTSA Model State Policy - Published September 20, 2016

2. Concurrent with the Model State Policy development, the Working Group will complete *Guidelines for the Regulation of Highly Automated Vehicles*, a final piece of its work in support of the Model State Policy. Anticipated December 2017 or January 2018



Uniform Law Commission

Lindsay Beaver, Legislative Counsel, Staff Liaison to the Drafting Committee on Highly Automated Vehicles

Preliminary

Scope:

Deployment – Not Testing

SAE Level 4 and 5 (Maybe SAE Level 3)

Focus: Clarify the application of existing state law to automated driving systems and the people involved with them.

Likely to address: Licensing, Registration, Rules of the Road, and Titling.

Potential to address: Used Vehicle Repair, Maintenance and Inspection Requirements; Applicability of Civil Liability and Insurance Requirements to Vehicles with Automated Driving Systems

- **Feedback:** What stakeholders should be involved in the drafting of an act?
- **Policy wish:** For states to avoid a complicated patchwork of regulation by adopting a uniform solution that clarifies state law without impeding innovation.

Automated vehicle research at IIHS

David Kidd, Senior Research Scientist

▶ What is IIHS doing?

- Functionality and human factors testing of existing products
- Researching crash reductions associated with existing products and potential reductions from future driving automation technologies
- Commenting on federal and state automated driving system policy

▶ What information would be helpful from the audience?

- What information about automated vehicles and crashes involving them are testing companies willing to provide?
- What additional information about crashes can law enforcement code reliably?

▶ What is our policy wish?

- Collect vehicle, disengagement, and crash information in a structured manner, and make it publicly available to support the analysis of real-world performance and safety



CITY DATA SHARING PRINCIPLES: INTEGRATING NEW TECHNOLOGIES INTO CITY STREETS

VISION STATEMENT
Data is the foundation for the decisions that rapidly emerge in cities and policy-making. To ensure that data is used in order to support the public good, NACTO's data sharing principles will enable more proactive providers to exchange information.

- NACTO's data sharing principles:**
1. Better Data for All
 2. Inclusion in Mobility
 3. Better Tools for All

1. BETTER DATA
Cities seek the best data to improve their networks. This data is provided by other cities in the open manner will allow cities following information city streets.

- » **Manage City Street** volume data is essential
- » **Manage Curb Space** cities. Provision of dynamically managed

NACTO POLICY STATEMENT ON AUTOMATED VEHICLES

VISION

NACTO supports a future transportation system that provides a sustainable, accessible, and affordable backbone to the strong cities at the center of our 21st century economy. New technology has the capacity to reduce the footprint of vehicular travel, moving more people in new forms of medium and low density transit, while creating space for safe and inviting walking and cycling infrastructure. Positioning new mobility services to provide access and mobility to all, and to business rather than undermine the successful transit lines at the heart of our cities, is vital to realizing the value of fully automated vehicles for mobility. At the same time, policy at every level of government should address head-on the destructive potential for increased traffic, emissions from additional driving, and on-street congestion that could easily result from automated vehicle technology.

SHAPING AUTOMATED VEHICLE POLICY

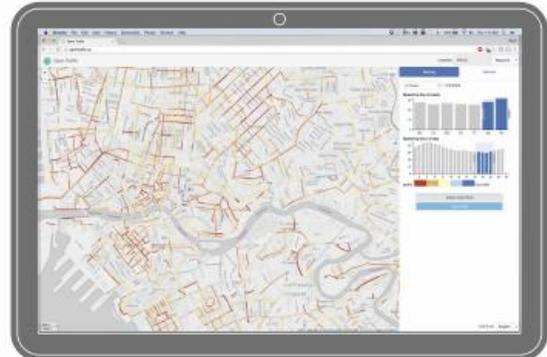
Fully automated vehicles (often referred to as level 4 automation by NHTSA) are a disruptive technology that will have widespread impacts on safety, mobility, land use, labor, and the built environment. Considering the complexity of urban environments and the many demands placed on city streets, as well as existing city policy goals of reduced greenhouse gas emissions and vehicle miles traveled, NACTO supports automated vehicle policies and regulations designed to:

- **promote safety** for pedestrians, bicyclists, transit riders, automated vehicle passengers, and all street users within the multi-modal urban context.
- **incentivize shared, automated, electric vehicles** to reduce the environmental impacts of vehicular travel and refocus planning on the principle of mobility as a service.
- **support the future vision of communities** as great places to live, work, and play by using technology as a tool to change land use as well as how streets are built.
- **rebalance the use of the right-of-way** with less space for cars and more space for people walking, cycling, using transit and recreation.
- **support public transit** by providing first and last mile connections to major transit lines via shared, automated vehicles, and by providing cost-effective, on-demand transit in lieu of low-performing land routes, and
- **improve mobility for all**, contributing to a more equitable transportation system, where benefits reach all demographics and any negative effects are not unfairly concentrated.

Cities should have jurisdiction over the policies and practices that directly impact city streets and citizens.

Priorities:

1. Data Sharing



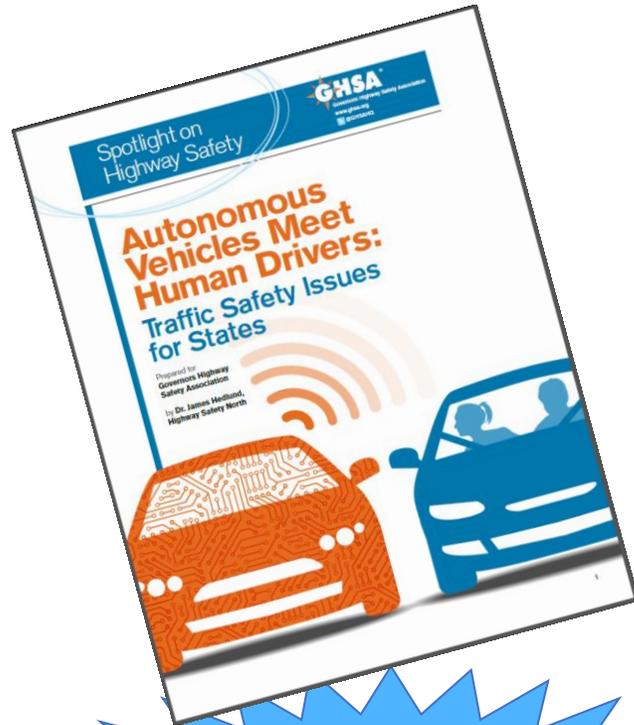
2. Safe Operations



3. Pricing



Autonomous Vehicles and Traffic Safety Issues



GHSA Annual Meeting
September 16-20
Louisville, KY

- Decades of mixed fleet transition
- Public education:
 - Safe operation of AVs
 - AV-human driver interactions
- Rules for AVs and traffic/impairment/teens/speed/distraction
- Access to crash/safety data
- Police engagement

Transit: 35 million boardings every day

- **Trends: Urbanization / Innovation / Entrepreneurship / Customer**
- **Positioning: Backbone of a multi-modal lifestyle**
- **Policy Framework**
- **Scenario Planning**

MARK NORMAN – TRB DIRECTOR OF DEVELOPMENT & STRATEGIC INITIATIVES

TRB: Research – Convene – Advise

Policy Wish:

To facilitate & fund fact-based research needed to deploy automated vehicles and shared mobility services in a manner and timeframe that informs policy to best meet long-term goals, including increasing safety, reducing congestion, enhancing accessibility, increasing sustainability, and encouraging economic development, and equity.

Helpful Audience Questions:

- What is TRB doing in this area?
- How helpful have TRB activities been in this area?
- What else would you like TRB to be doing?
- How can you get involved?



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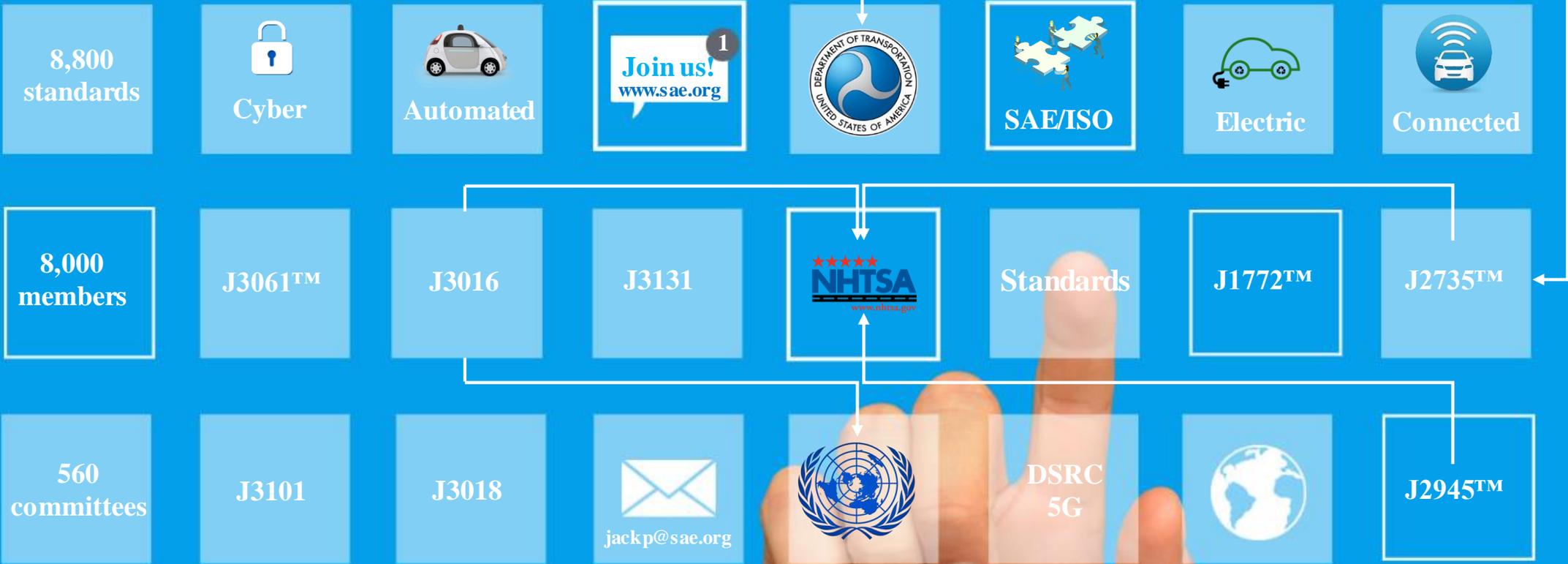
The View from the Alliance

Anne Marie Lewis, PhD, Director of Safety & Technology Policy, Auto Alliance



Key Policy Recommendations:

- Expanded FMVSS temporary exemptions, including the number and duration, that NHTSA is authorized to grant under the Safety Act.
- NHTSA should remove or eliminate impediments to the testing, development, and deployment of Highly Automated Vehicles (HAVs).



SAE

Global Ground Vehicle Standards

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