



INTELLIGENT TRANSPORTATION SOCIETY *of* AMERICA

ITS America Update: The Road to the Next Generation of Mobility

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23rd Annual ITS Wisconsin Forum
November 8, 2017



Announcement of New ITS America President and CEO

2017 Events: ITS World Congress



ITS World Congress 2017

Montréal 

Integrated Mobility Driving Smart Cities

October 29 – November 2, 2017

Palais des congrès de Montréal

<http://itsworldcongress2017.org/>

ITSWC 2017: Themes

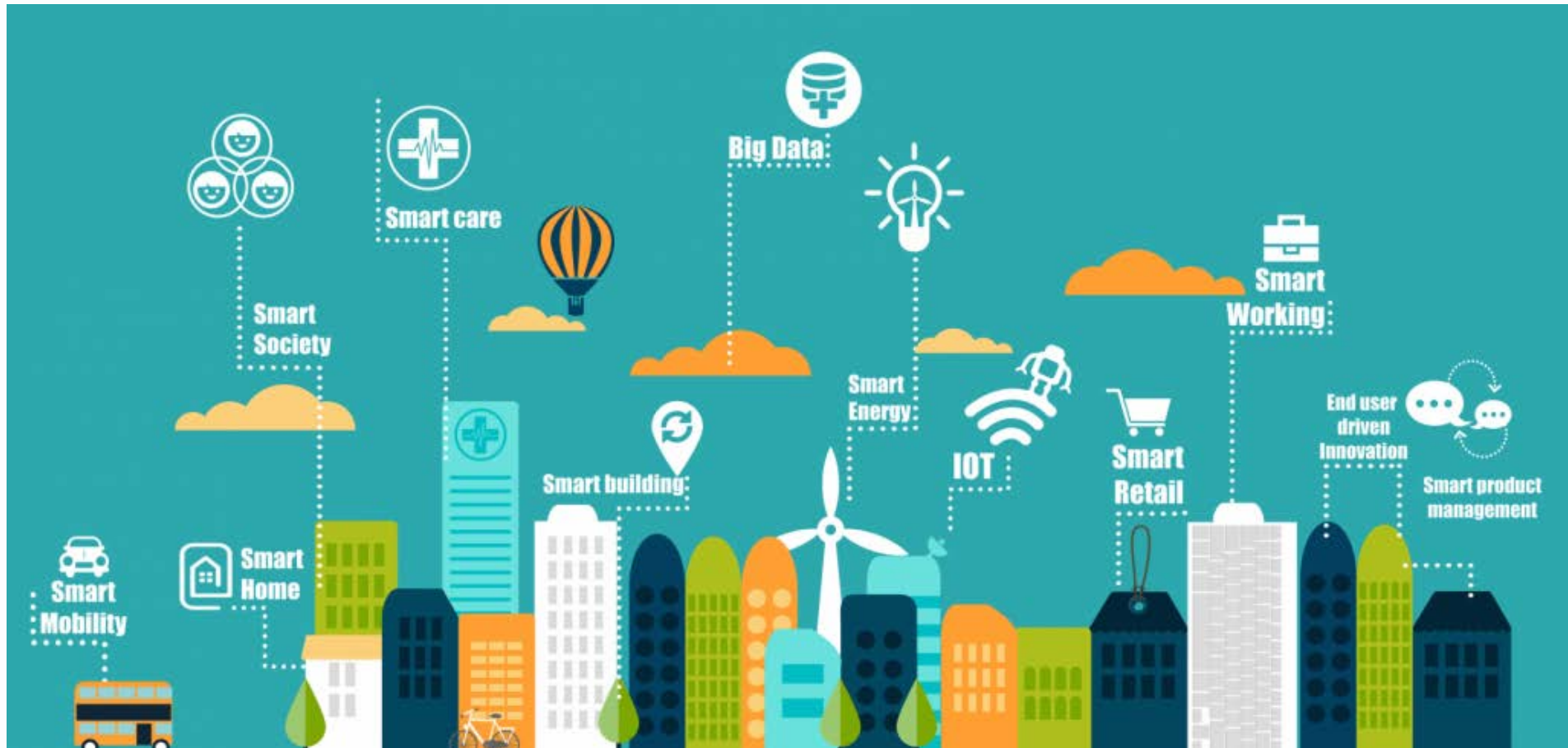
Day One Integrated Mobility Driving Smart Cities: **The Vehicle**

Day Two Integrated Mobility Driving Smart Cities: **The Backbone**

Day Three Integrated Mobility Driving Smart Cities: **The Policy**

Day Four Integrated Mobility Driving Smart Cities: **The Business**

ITSWC 2017: Smart Cities Pavilion



ITSWC 2017:

Smart Cities Pavilion – Participating Cities



Smart Cities Pavilion

- Urban Mobility
- Engaged Citizenry
- Smart Security
- Economic Cluster
- Smart Democracy



State Chapters: Engagement

ITS America has stepped up engagement with the State Chapters through various means including:

- Regular communications with the State Chapters Council (e.g., monthly conference calls and email updates)
- Formation of and calls with the Board State Chapters Task Force
- Invitations to ITS America Webinars (e.g., Arizona approach to AVs)
- Invitations to ITS America Webinars specifically designed for the State Chapters (e.g., [Advocacy 101](#) and [Preview of ITSWC 2017](#))
- Participation in State Chapter annual meetings

State Chapters Board Task Force

- **Purpose:** To further strengthen ITS America's working relationship with the state chapters.
- **Board Members on Task Force:** Jill Ingrassia (AAA), Ken Philmus (Conduent), and Pat McGowan (Serco)
- **State Chapters' Members on Task Force:** Nathan Masek (Past President, ITS NM), Kevin Conahan (VP, ITSPA), John Hansen (VP, ITS Rocky Mountain), Tiger Harris (State Chapter Representative, ITS VA & VP, ITS Carolinas), & Matt Volz (Treasurer, ITS Heartland)
- **Overarching Discussion Topic:** How can the State Chapters and ITS America collaborate more effectively to better serve each other, and their collective memberships?

Technical Programs Overview

ITS America houses a **diversely trained and experienced technical staff** which represents all facets of the ITS industry, including transportation and traffic engineering, telecommunications, policy, public transit, incident response, and statistical analysis. ITS America's technical staff are an industry resource with a pulse on the latest ITS developments, domestically and internationally. Our work includes:

- Technology Forecasting and Assessments
- Market Studies and Surveys
- Institutional Capacity and Workforce Development
- Events and Meetings: Programming, Facilitation, and Logistics
- Technology Standards Development
- International Collaborations & Partnerships

Technical Programs Highlight: ISO/TC 204

- In cooperation with the USDOT, ITS America began serving as the official Secretariat for ISO/TC 204 in 2011 to provide staff support to the program, which is responsible for a large number of ITS standards activities in the U.S. and around the world.
- The ISO/TC 204 program is critical because of the wide range of areas it oversees, including:
 - Standardization of information, communication and control systems in the field of urban and rural surface transportation, including intermodal and multimodal aspects
 - Traveler information
 - Traffic management
 - Public and commercial transport
 - Emergency and commercial services
- Having invested upwards of \$600,000 toward the project, ITS America has accomplished its goal for the program—the development of viable, harmonized standards for the ITS industry.
- Therefore, ITS America and ISO/TC 204 announced the transfer of ISO/TC 204 Secretariat and U.S. TAG Administrator for ISO/TC 204 to SAE International in September 2017.

Technical Programs Highlight: PCB Program

Since 2011, the ITS JPO's Professional Capacity Building (PCB) Program has partnered with ITS America to deliver ITS training courses in conjunction with ITS America State Chapter meetings and associated events. The program allows the opportunity for training with the following:

- State and local transportation professionals
- Public and private sector transportation professional
- Training and information on some of the most relevant, forefront ITS issues of today

Technical Programs Highlight: MOD

Mobility on Demand (MOD): ITS America monitors, collects, and develops tools for disseminating information on the transforming MOD landscape, including transportation network companies (Uber, Lyft), microtransit (Bridj, Chariot), bikeshare, and carshare.

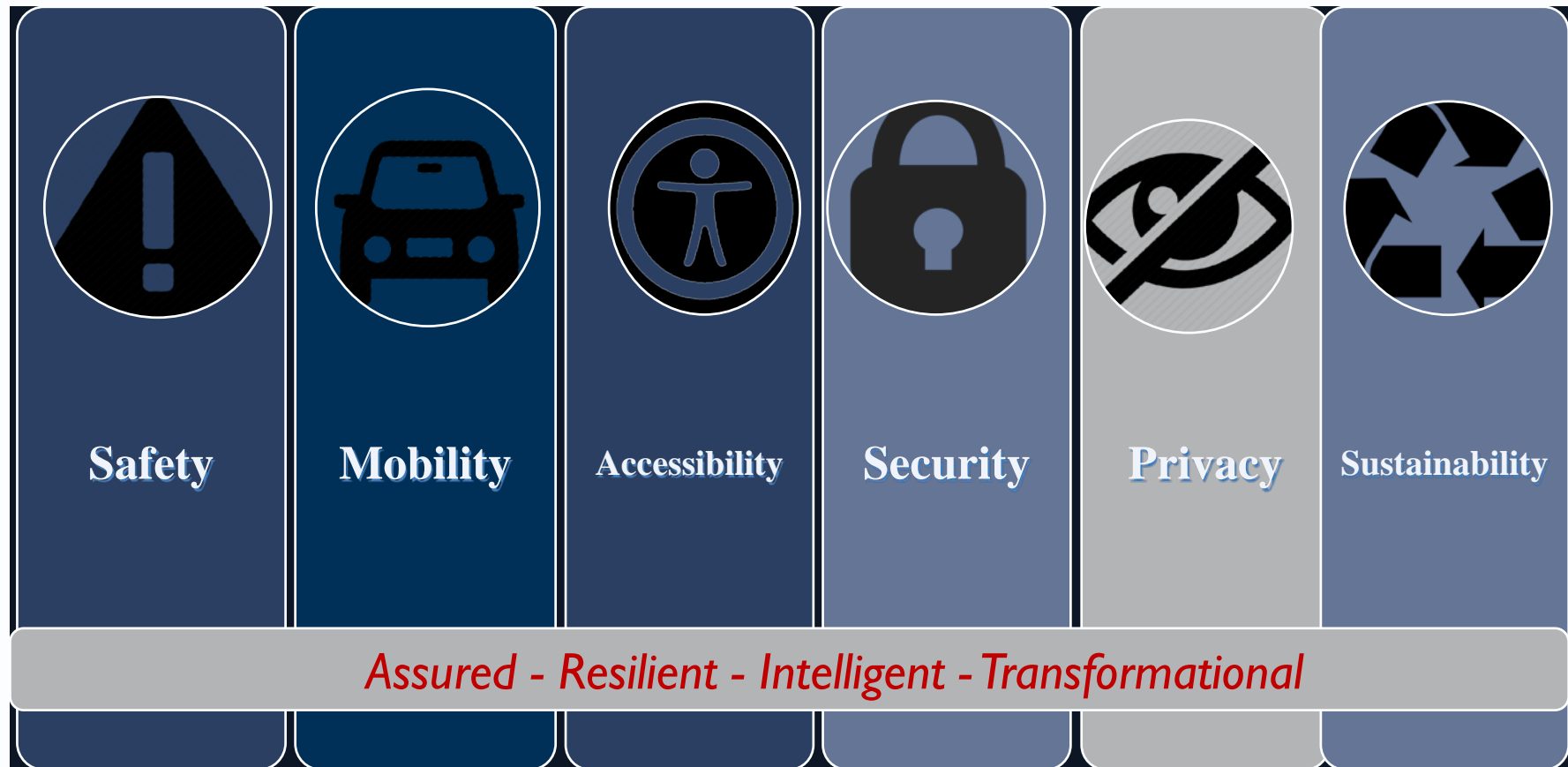
- ITS America catalogues and analyzes emerging partnerships and business models between MOD providers and transit agencies, DOTs, etc.
- ITS America envisions a mobility system that is inclusive, responsive, and seamless across multiple modes by leveraging newly available technologies.
- Mobility Rush: <https://www.itsa.org/mobility-rush/>

ITS America Policy Roadmap

- Today, we find ourselves in the midst of a whirlwind period of innovation in transportation that is changing the fundamental makeup of entire industries.
- Federal, State, and Local government officials have the difficult challenge of responding to this rapidly evolving environment.
- As a result, ITS America convened its members to create a public [policy roadmap](#)--released in February--aimed at spurring the deployment of transformative mobility technologies.



Why This is So Important? Putting It All Together

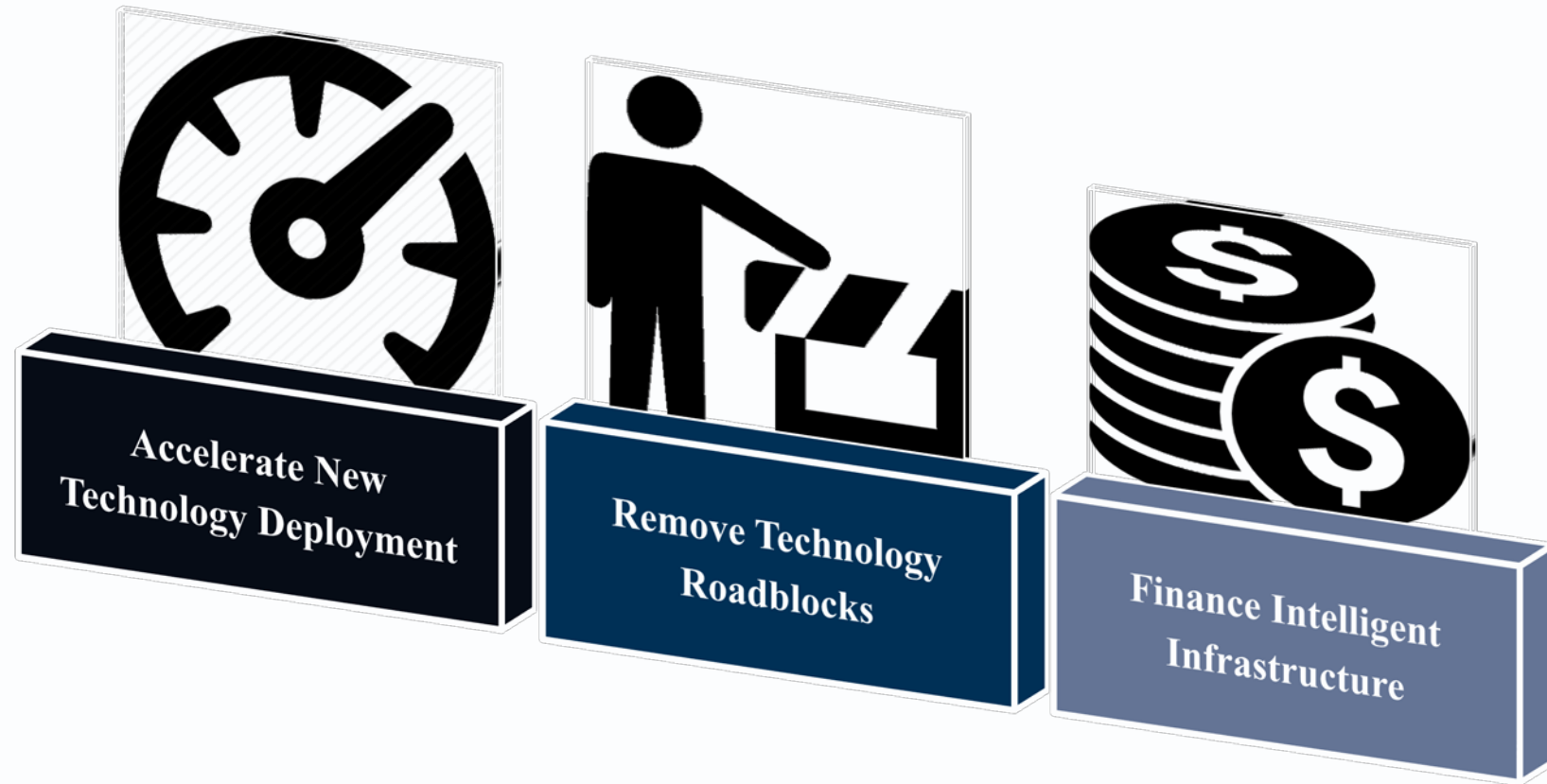


ITS America Roadmap: Our Transportation Future

Intelligent Transportation....

- Can Strengthen the Economy at its Foundation
- Can Save Tens of Thousands of Lives Each Year and Billions of Dollars
- Gets More Bang for Less Buck
- Better Performance of the Existing System
- Promotes Energy Efficiency
- Broadens Access to Transportation Systems
- Creates Higher Skill, Higher Paying, and More Secure Jobs

ITS America Roadmap: Priorities





Additional Information:

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ITS America Roadmap:
Policy Highlight

Additional Background

ITS America Roadmap: Accelerate Technology Deployment & Research

- Deploy Vehicle-to-Vehicle (V2V) Communications
- Upgrade our Infrastructure to Accommodate New Automotive Technologies (V2I)
- Deploy Automated Vehicles (AV)
- Address Cybersecurity and Reduce Vulnerabilities in our Transportation System
- Advance Artificial Intelligence (AI)
- Expand Broadband and Secure Spectrum
- Establish New Modes of Freight Transportation such as Unmanned Aerial Vehicles

ITS America Roadmap: Remove Roadblocks

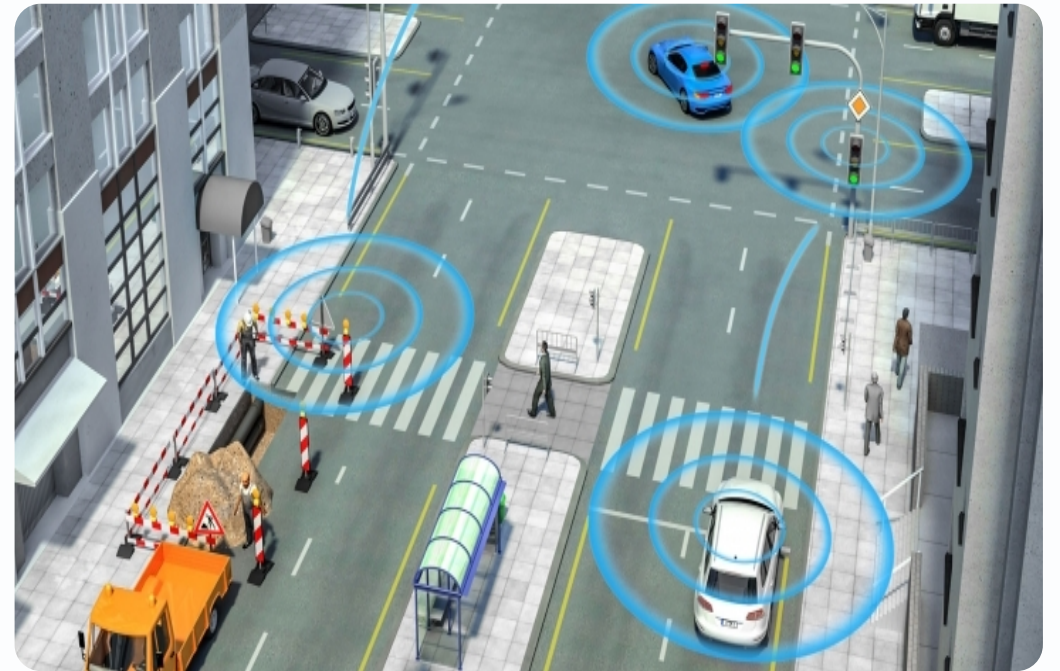
- Build Public Confidence in the Privacy and Security of New Technology
- Reduce Distracted Driving through Technology and Education
- Bridge Gaps between Research and Deployment of New Technologies
- Expand Research and Address Long Term Impacts to our Transportation System

ITS America Roadmap: Increase Investment

- Increase Investments in Infrastructure and Transportation Technology
- Promote Innovative Models in Funding, Finance, Partnerships
- Reinvest in our Communities through Smart Technology-
“Smart Communities”

Highly Automated Vehicles

- We are in the midst of the most significant transformation in transportation since the engine merged with the horse and buggy
- The merger is technology with the vehicle
- Technology will change the way goods, services, and people move
- This will influence how communities are designed for decades to come by creating places that are sustainable, equitable, and economically vibrant



Highly Automated Vehicles Legislation: Federal Framework

House and Senate legislation would establish a federal framework to support development and deployment of highly automated vehicles

- H.R. 3388, “Safely Ensuring Lives Future Deployment and Research in Vehicle Evolution Act,” or the SELF DRIVE Act
- S. 1885, “American Vision for Safer Transportation through Advancement of Revolutionary Technologies Act,” or the AV START Act

Highly Automated Vehicle Legislation: Preemption

- SELF DRIVE Act: States are preempted from enacting laws and regulations that place an “unreasonable restriction” on the design, construction, or performance of HAVs regarding registration, licensing, driving education and training, insurance, law enforcement, crash investigations, and safety emissions inspections.
- AV START Act: States are preempted from adopting laws, regulations, and standards that regulate the design, construction, or performance of HAVs with respect to system safety, data recording, cybersecurity, human-machine interface, crashworthiness, capabilities, post-crash behavior, account for applicable laws, and automation function.

Highly Automated Vehicle Legislation: Safety Standards

- SELF DRIVE Act: Assessment Letter (SAL) includes system safety, operational design, object and event detection and response, fallback, validation methods, human machine interface, vehicle cybersecurity, crashworthiness, post-crash ADS behavior, data recording, consumer education and training, and federal/state/local laws.
- AV START Act: The Safety Evaluation Report (SER) covers 9 areas including system safety, data recording, cybersecurity, human-machine interface, crashworthiness, capabilities, post-crash behavior, account for applicable laws, and automation function.

Highly Automated Vehicle Legislation: Exemptions

- SELF DRIVE Act: Expands the number of FMVSS exemptions for HAV systems that NHTSA can grant from 2,500 to 25,000 vehicles in the first year, 50,000 in their second year, and 100,000 in their third and fourth years. Duration of FMVSS exemptions from 2 years to 4 years.
- AV START Act: Expands the number of FMVSS exemptions for HAVs that NHTSA can grant from 2,500 to 15,000 vehicles in the first year, 40,000 vehicles in the second year, and 80,000 vehicles for any 12-month period following the second year.

Highly Automated Vehicle Legislation: Cybersecurity

- SELF DRIVE Act: Manufacturers of HAVs and partially automated vehicles must develop a cybersecurity plan with 180 days of enactment.
- AV START Act: Manufacturers of HAVs must develop a written cybersecurity plan within 18 months of enactment of the Act.

Highly Automated Vehicle Legislation: Motor Vehicle Testing or Evaluation

- SELF DRIVE Act: Explicitly allows entities that are not traditional auto manufacturers (e.g., tech firms, universities) to introduce HAVs into interstate commerce solely for testing and evaluation purposes.
- AV START Act: Does not explicitly mention tech firms or universities, but Section 2 of AV START Act uses the term “manufacturer” as defined by 49 USC 30102(a)(6) to mean a person “manufacturing or assembling motor vehicles or motor vehicle equipment” or “importing motor vehicles or motor vehicle equipment for resale.” Tech firms and universities should fall under this umbrella.

Highly Automated Vehicle Legislation: Information to Prospective Buyers

- SELF DRIVE Act: The Secretary must complete research on the most effective methods and terminology for educating consumers about capabilities and limitations of partially automated and highly automated vehicles.
- AV START Act: The Secretary is required to establish a working group on responsible education for HAVs within 180 days of passage.

Highly Automated Vehicle Legislation: Advisory Council

- SELF DRIVE Act: The Secretary is required to establish a Highly Automated Vehicle Advisory Council within 6 months after enactment.
- AV START Act: The Secretary is required to establish a Highly Automated Vehicles Technical Committee within 180 days of enactment.

Highly Automated Vehicle Legislation: Privacy

- SELF DRIVE Act: Manufacturers cannot sell, lease, import, or otherwise introduce into interstate commerce a partially or highly automated vehicle until they have developed a written privacy plan for consumer data. Plan must describe the manufacturers' practices for collecting, using, sharing, and storing consumer data.
- AV START Act: Not explicitly required.

Highly Automated Vehicle Legislation: Trucks

- SELF DRIVE Act: Commercial vehicles (trucks, buses) with automated driving systems are explicitly excluded.
- AV START Act: Commercial vehicles (trucks, buses) with automated driving systems are explicitly excluded.

Connected Vehicles

- While automated driving systems continue to advance, it is the combination of connected and automated driving that promises the greatest opportunity to dramatically reduce traffic fatalities and injuries and improve mobility.
- Allows vehicles to effectively see dangerous situations before they encounter them.
- Allows vehicles to coordinate their movements with infrastructure.



V2V/DSRC/5.9 GHz Safety Spectrum

- ITS America strongly urges the Federal government to protect the 5.9 GHz safety spectrum band that was allocated by the FCC for development of Dedicated Short Range Communications (DSRC)-enabled vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) technology.
- NHTSA, which proposed V2V standards last year, estimates DSRC potentially could reduce 80% of unimpaired crash scenarios, saving thousands of lives per year.
- DSRC-enabled vehicles effectively can “see” around corners and achieve greater 360-degree situational awareness to inform/warn a driver of an impending crash.
- ITS America is neutral on technology but not neutral on safety. DSRC is the only technology that exists today that has been tested and proven to support safety critical vehicle applications.

V2V/DSRC/5.9 GHz Safety Spectrum (contd.)

- FCC is considering reconfiguring the 5.9 GHz safety spectrum band for sharing with unlicensed Wi-Fi use.
- Testing is ongoing. ITS America is open to the sharing of the 5.9 GHz spectrum as long as there is no harmful interference to continuous, low latency, and secure data exchanges among moving vehicles and between vehicles and roadway infrastructure or mobile devices throughout the band.
- There is no evidence that sharing of the spectrum will not cause harmful interference to DSRC. Therefore, ITS America and its coalition partners are advocating for the protection of this spectrum.

V2V/DSRC/5.9 GHz Spectrum Advocacy

- ITS America is a founding member of the [Safety Spectrum Coalition](#)
- 7/31/17 ITS America [comments](#) to FTC on FTC/NHTSA Workshop on Connected Cars: Privacy, Security Issues Related to Connected, Automated Vehicles.”
- 6/7/17 ITS America [op-ed](#) in *Cincinnati Enquirer* titled “Let's Resolve to Use Technology to Make our Roads Safer”--timed with President Trump’s infrastructure speech in Cincinnati.
- 5/27/17 ITS America/National Safety Council [op-ed](#) in *The Hill* “This Memorial Day, Let's Resolve to Deploy More Vehicle-to-Vehicle Communications Systems.”
- 5/17/17 Safety Spectrum Coalition letter signed by ITS America and 10 other organizations to the House Appropriations Subcommittee on Transportation.
- ITS America press [release](#) regarding the April 12, 2017, ITS America [comments](#) and Safety Spectrum Coalition [comments](#) filed with NHTSA in response to its [proposed](#) standard for V2V communications
- 1/25/17 Safety Spectrum Coalition [letter](#) to the Federal Communications Commission

Public Policy Roadmap & Intelligent Transportation General Advocacy Highlights

- [ITS America's Public Policy Roadmap](#)
- **5/30/17** [C-SPAN interview](#) of then-ITS America President and CEO Regina Hopper on “the future of high-tech transportation systems in the U.S.”
- **5/17/2017** ITS America letter to the leadership of the U.S. House Appropriations Subcommittee on Transportation, Housing and Urban Development, and Related Agencies regarding its hearing on “Emerging Transportation Technologies.” Letter urged the Subcommittee to support increased investments in the rapid deployment of intelligent transportation technologies throughout the transportation system.
- As part of Infrastructure Week, **5/14/17** ITS America [op-ed](#) in *The Hill* on the need for intelligent transportation systems to be included in our new highways, roads, streets and bridges

Other Advocacy Activities

- 10/10/17 ITS America [press statement](#) on NHTSA 2016 Fatal Traffic Crash Data
- 9/6/17 ITS America [press statement](#) in response to passage of AV legislation by the U.S. House of Representatives.
- 5/31/17 ITS America release [announcing](#) a partnership with the Cyber Future Foundation to form the Intelligent Transportation Cybersecurity Task Force
- 2/28/17 ITS America [statement](#) on President Trump's infrastructure plans
- 2/27/17 ITS America [statement](#) on the confirmation of Wilbur Ross as U.S. Secretary of Commerce
- 2/3/17 ITS America [comments](#) to NHTSA in response to the 12/5/16 Visual Manual Driver Distraction Guidelines for Portable and Aftermarket Devices
- 1/31/17 ITS America statement congratulating U.S. Secretary of Transportation Elaine Chao on her confirmation.