



Chris Spear
President & Chief Executive Officer

October 3, 2017

The Honorable James Inhofe
United States Senate
205 Russell Senate Office Building
Washington, DC 20510

Dear Senator Inhofe:

On behalf of the American Trucking Associations (ATA), the nation's preeminent organization representing the interests of the trucking industry, I write to thank and applaud you and your colleagues Senators Cruz, Young, Wicker, Fischer, Gardner, Heller, and Moran, for your efforts to include commercial motor vehicles in S.1885, the American Vision for Safer Transportation Through Advancement of Revolutionary Technologies (AV Start Act). Safety is of critical importance to the trucking industry, which invests at least \$9.5 billion annually on safety, including through technology enhancements. With human error a factor in 87% of large truck crashes and 94% of all vehicle crashes, automated vehicle technologies can assist the driver in identifying and reacting to critical safety situations, and have the potential to bring major improvements in safety for all types of vehicles.

The trucking industry is an integral component of our nation's economy, and a significant contributor to the highway trust fund. Despite being less than 13 percent of the vehicles on the road, trucking pays nearly half of the money that goes into the highway trust fund each year. The same protections and incentives for innovation that this bill provides for passenger vehicles - things like federal preemption to ensure that state and federal regulations do not conflict or impede interstate commerce, and the ability to receive exemptions from existing federal regulations so that new technology can be developed and tested - should apply to commercial vehicles as well. It is simply inconceivable that this legislation would favor one type of vehicle over another, as both cars and trucks travel together every day on the same roads and bridges.

While some Committee members have expressed concern for the impact automated vehicles will have on jobs, this bill, and this technology for that matter, is not about driver displacement. This bill is about developing the technology that will bring about improvements in safety and productivity, and reductions in fuel burn, emissions, and congestion. Additionally, we believe that highly automated trucks will likely attract new, younger drivers into the trucking industry by better meeting the job expectations of the millennial workforce, an important consideration given current projections that the trucking industry will need to hire over 890,000 drivers over the next decade.



As I said in testimony before the Committee, the trucking industry has a substantial stake in the success of safe automated and connected vehicle technology. It is critical that federal policies developed for this new technology include all vehicles that operate on our nation's roads. Trucking plays a critical role in our economy – keeping the shelves of our local supermarkets fully stocked; delivering life-saving medical supplies to hospitals and clinics; and delivering goods at every stage of production from raw materials to the store shelf – and it must not be left out of any legislation that supports innovation in automated vehicle technology.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Spear". The signature is fluid and cursive, with the first name "Chris" being more prominent than the last name "Spear".

Chris Spear
President & CEO
American Trucking Associations

CHAMBER OF COMMERCE
OF THE
UNITED STATES OF AMERICA

TIM DAY
SENIOR VICE PRESIDENT
CHAMBER TECHNOLOGY
ENGAGEMENT CENTER(C_TEC)

LISA RICKARD
PRESIDENT
U.S. CHAMBER INSTITUTE
FOR LEGAL REFORM

October 3, 2017

The Honorable John Thune
Chairman
Committee on Commerce, Science, and
Transportation
United States Senate
Washington, D.C. 20510

The Honorable Bill Nelson
Ranking Member
Committee on Commerce, Science, and
Transportation
United States Senate
Washington, D.C. 20510

Dear Chairman Thune and Ranking Member Nelson:

The U.S. Chamber of Commerce thanks the Committee for its leadership on S. 1885, the “AV START Act,” and for its recognition of the safety and mobility benefits of autonomous technology.

Self-driving vehicles present tremendous opportunities for consumers, businesses, and the U.S. economy by making travel safer, enhancing productivity, and increasing transportation efficiency. However, regulatory and other barriers can impede the development of self-driving vehicles.

The Chamber created the Technology Engagement Center (C_TEC) to promote the role of technology in the economy and to advocate for rational policies that drive economic growth, spur innovation, and create jobs. The Institute for Legal Reform (ILR) is an affiliate of the Chamber dedicated to making the civil legal system simpler, faster, and fairer for all participants.

C_TEC convenes an autonomous vehicle working group representing sectors across the economy to help guide policymakers, regulators, the public at large, and the business community on the benefits of self-driving vehicle technologies. This group represents a diverse membership, including Original Equipment Manufacturers, software, and insurance companies among others.

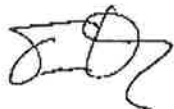
We appreciate the legislation’s provisions for a single national framework for vehicle safety and performance standards, and we urge the Senate Commerce Committee to ensure that such a framework applies to all types of motor vehicles including commercial vehicles. We also believe that the legislation requires effective preemption provisions; while there is always room for improvement, we support the text currently in the legislation.

To be competitive in the global autonomous vehicle market, legislators must strike the critical, yet challenging, balance between innovation, safety, and privacy when developing standards for autonomous vehicles. Innovators need a single set of federal standards as opposed

to a patchwork of state laws, rules and regulations. We encourage the Committee to ensure that the legislation's preemption provisions protect innovation and development from inconsistent state liability rules, potentially expansive litigation and entrepreneurial plaintiffs' lawyers. Without effective and appropriate preemption, we risk impeding our innovators and ceding our leadership in this industry.

As S. 1885 moves through the legislative process, the Chamber looks forward to working with the Committee to further refine and improve the bill.

Sincerely,



Tim Day
Senior Vice President
C_TEC U.S. Chamber of Commerce



Lisa Rickard
President
U.S. Chamber Institute for Legal Reform

cc: Members of the Committee on Commerce, Science, and Transportation

October 3, 2017

Senator James Inhofe
205 Russell Senate Office Building
Washington, DC 20510

Dear Senator Inhofe,

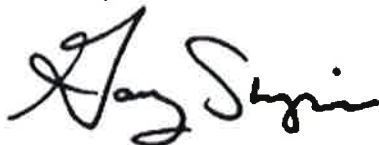
On behalf of the Consumer Technology Association (CTA)™, thank you for your amendment to include commercial vehicles in the AV START Act. CTA appreciates your leadership on this issue and supports your amendment to include commercial vehicles in the AV START Act.

CTA is the trade association representing the entrepreneurs, technologists and innovators molding the future of the consumer technology industry. Our more than 2,200 member companies include many working to transform the safety and efficiency of the driving experience through automated driving technologies and assisted and self-driving cars. These advances are changing our lives for the better: leading to expanded mobility, increased fuel efficiency, reduced traffic congestion and, above all, enhanced safety on our nation's roads and highways. Self-driving trucks will play a significant part. They will transform American commerce while dramatically improving road safety. They will revolutionize transportation – and also make it less expensive – letting companies send goods over long distances without worrying about whether a driver has the stamina for yet another marathon drive.

We must be proactive and establish a regulatory framework that will ensure we are ready for this transition, and that the U.S. remains the leader in this incredible technology. This means staying technology neutral – allowing all forms and models of a technology to emerge unhindered. The transition, benefits, insurance and even the mixing of commercial and personal use of self-driving vehicles requires candid policy discussions. Government needs to act to ensure legacy interests, including the different regulatory schemes for commercial and personal vehicles, do not create patchwork rules delaying the benefits of self-driving vehicles, including the potential of saving more than 30,000 American lives each year.

Again, thank you for your amendment and your leadership on self-driving vehicle policy.

Sincerely,



Gary Shapiro
President and CEO



2001 Gateway Place, Suite 101E
 San Jose, California 95110
 (408)501-7864 svlg.org

CARL GUARDINO
 President & CEO

Board Officers:
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 KIM POLESE
 ClearStreet
 JOSEPH RUGGIERO
 Verizon
 SHARON RYAN
 Bay Area News Group
 RON SEGE
 Echelon
 DARREN SNELLGROVE
 Johnson & Johnson
 JED YORK
 San Francisco 49ers

Established in 1978 by
 David Packard

October 4, 2017

The Honorable James M. Inhofe
 United State Senate
 205 Russell Senate Office Building
 Washington, DC 20510-3603

RE: Support for AV START Act Amendment to Include Heavy Vehicles

Dear Senator Inhofe,

We are writing on behalf of the Silicon Valley Leadership Group to express the organization's support for your amendment to expand the AV START Act's definition of highly automated vehicles (HAVs) to include commercial and freight vehicles.

The Silicon Valley Leadership Group, founded in 1978 by David Packard of Hewlett-Packard, represents more than 400 of Silicon Valley's most respected employers on issues that affect the economic vitality and quality of life in Silicon Valley, including education, energy, environment, healthcare, housing, tax policy, technology and innovation, and transportation. Leadership Group members provide nearly one out of every three private sector jobs in Silicon Valley.

The inclusion of commercial and freight vehicles in the definition of HAVs is in keeping with NHTSA's authority broadly, and with its September 2017 automated vehicle guidance specifically—NHTSA does not make a distinction between automated vehicles of different types and expressly states that the guidance "applies to the design aspects of motor vehicles and motor vehicle equipment . . . including low-speed vehicles, motorcycles, passenger vehicles, medium-duty vehicles, and heavy-duty CMVs such as large trucks and buses." To exclude vehicles over 10,000 pounds would create uncertainty, encouraging divergent and incompatible state regulatory regimes difficult for industry to navigate. Your amendment would provide clarity, ensuring that commercial and passenger vehicle automated driving systems (ADSs) develop under the same provisions.

Eleven people are killed each day in truck crashes, the vast majority of which are due to human choice or error. Ninety-four percent of all automobile crashes are due to human choice or error. The Leadership Group believes in the life-saving potential of ADSs, and this amendment would ensure that this potential is available to commercial as well as passenger vehicles.

Once again, on behalf of the Silicon Valley Leadership Group, we thank you for your leadership on this issue. Should you have any questions or require additional information, please contact Paul Escobar at pescobar@svlg.org or 408.501.7875.

Sincerely,

Peter Leroe-Muñoz
 Vice President, Tech & Innovation
 Silicon Valley Leadership Group

Paul Escobar
 Director, Policy & Education Programs
 Silicon Valley Leadership Group

Motor & Equipment Manufacturers Association

1030 15th Street, NW Suite 500 East Washington, DC 20005
Tel 202.393.6362 Fax 202.737.3742 E-mail Info@mema.org



October 4, 2017

Senator James M. Inhofe
United States Senate
205 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Inhofe:

Thank you for your amendment on S. 1885, which would include trucks (vehicles over 10,000 gvw) in the AV START Act.

MEMA represents vehicle suppliers for both light-duty and heavy-duty vehicles, and our suppliers play a leading role in developing advanced vehicle technologies for highly automated vehicles. More than 871,000 Americans are directly employed by the motor vehicle parts manufacturing industry, up 19% since 2012. Vehicle suppliers are the largest sector of manufacturing jobs in the United States, and contribute 77% of the value in today's vehicles.

We support the underlying legislation because it provides suppliers with the ability to test automated vehicle systems and components on public roads, and clarifies the distinction between federal and state regulation of highly automated vehicles. We appreciate the bipartisan efforts of Chairman Thune and Senator Peters in crafting the legislation.

We also support your amendment to include heavy-duty vehicles in the legislation for two main reasons: one, we believe trucks and cars should be subject to the same regulatory framework as Federal Motor Vehicle Safety Standards evolve; and two, as highly automated vehicles are tested on roadways it is critical that both light and heavy-duty vehicles collect data about how these vehicles recognize, respond, and interact with one another.

We appreciate your leadership on this issue and thank you for putting forth the amendment.

Sincerely,

A handwritten signature in blue ink, appearing to read "T. Lehner", is written over a white background.

Thomas J. Lehner
Vice President, Public Policy





TRALA

TRUCK RENTING AND LEASING ASSOCIATION

October 3, 2017

The Honorable James Inhofe
United States Senate
205 Russell Senate Office Building
Washington, DC 20510

Dear Senator Inhofe:

The Truck Renting and Leasing Association (TRALA) wishes to thank you and your colleagues Senators Cruz, Young, Wicker, Fischer, Gardner, Heller, and Moran, for your amendment to add commercial motor vehicles to S. 1885, the American Vision for Safer Transportation Through Advancement of Revolutionary Technologies (AV Start Act). TRALA is a national trade association which represents nearly 500 truck renting and leasing companies as well as over 100 associate members who supply parts and vehicles to our truck members. TRALA members purchase between 25-30% of all class 2-8 trucks and tractors annually and more than one quarter of all commercial trucks operating on the road today are either rented or leased. Safety for all motorists is the paramount purpose of this legislation which is why all users of the road should be included.

As we heard during the Senate Commerce hearing on September 13, with regards to safety there is no difference between a Highly Autonomous Truck and a Highly Autonomous Automobile. TRALA, like the rest of the trucking industry, has been investing millions of dollars in the newest and safest equipment each year. TRALA members have invested heavily in Electronic Stability Control, Automatic Emergency Braking, and other crash avoidance technologies. These technologies continue to improve safety for our drivers and the public but it only makes sense to continue to push forward and adopt newer and safer technology as they develop. For this reason it is critical that trucks be treated the same as automobiles are when it comes to issues such as federal preemption, and the ability to test these emerging autonomous technologies here in the U.S. Given the fact that cars and trucks share our highways every day, it would make no sense whatsoever to exclude any vehicle from the life-saving potential that could result from making our cars and trucks safer.

As former Chairman of the National Transportation Safety Board (NTSB) Deborah Hersman said during her testimony, 94% of all vehicle accidents are caused by driver error. The potential of Vehicle-to-Vehicle and Vehicle-to-Infrastructure communication could eliminate nearly all driver error and save tens of thousands of lives each year. With that said, the trucking industry needs the legislative certainty that they can proceed with developing and testing these emerging technologies safely here in the U.S. and not force manufacturers to move their research and development activities overseas to countries that are more than willing to allow for autonomous technologies to expand.

That it is why it is imperative that the Committee adopt your amendment and include trucks in the AV START Act. TRALA appreciates your leadership on this critical issue and I hope to work with your office to ensure all vehicles are treated fairly to the betterment of the entire driving public.

Sincerely,

Jake Jacoby
President and CEO

675 N. WASHINGTON STREET, SUITE 410 • ALEXANDRIA, VA 22314

TEL (703) 299-9120 • (703) 299-9115 • www.trala.org



October 4, 2017

The Honorable James M. Inhofe
United States Senate
205 Russell Senate Office Building
Washington, DC 20510

Dear Senator Inhofe:

Both UPS and FedEx, fierce competitors in the transportation services marketplace, agree that recent legislative efforts in the Senate Commerce Committee related to the development of an autonomous vehicle legislative and regulatory framework are extremely constructive and will produce motor vehicle safety, economic, and quality of life benefits for our nation.

The current legislation before the Committee, the American Vision for Safer Transportation through Advancement of Revolutionary (i.e., AV START Act), and a House version of similar legislation, will establish an appropriate federal role as innovators, automotive manufacturers, motorists, and consumers harness new technologies to improve the way people, and goods, move throughout America.

From a goods movement and motor carrier perspective, FedEx and UPS are committed to developing driver-assist technological enhancements that allow our respective fleets to operate in a safer, more sustainable manner, while mitigating increasing levels of highway congestion.

Senator Inhofe, it is both logical, and appropriate, to include commercial vehicles in federal legislation that preempts state and local efforts regarding a policy framework to introduce autonomous vehicles onto America's roadways. Integrated, intermodal, transportation service providers play a key role in fostering American competitiveness, and desire the ability to develop new safety technologies that enhance our ability to service our customers, while innovating to meet an evolving e-commerce dominated marketplace.

Our organizations are committed to developing safety-first innovations that will enhance motor carrier operations and the goods movement landscape, and believe that new transportation technologies in this arena represent an evolutionary approach towards automation. *Both UPS and FDX are in strong support of your amendment to remove the heavy truck exemption from the definition of highly automated vehicles in the AV START Act.* To exclude commercial vehicles from this bill would unnecessarily penalize motor carriers, and not allow them to take full advantage of the benefits new automotive technologies will yield.

We look forward to working with you, and the Senate Commerce Committee, as this issue advances.

Sincerely,

Gina Adams
Sr. Vice President, Government Affairs
FedEx Corporation
101 Constitution Avenue NW
Suite 801 East
Washington, DC 20001

Laura Lane
President, Global Public Affairs
UPS
316 Pennsylvania Avenue, SE
Suite 300
Washington, DC 20003



October 3, 2017

The Honorable Senator James M. Inhofe
205 Russell Senate Office Building
Washington, D.C. 20510-3603

Dear Senator Inhofe,

On behalf of Waste Management, I write to support your amendment adding trucks over 10,000 pounds to the Senate's AV START bill, regulating autonomous vehicles.

Waste Management is the leading provider of comprehensive waste management services in North America, providing services that range from collection and disposal to recycling and renewable energy generation.

The inclusion of commercial vehicles is integral to improving road safety, supporting transportation access, and promoting job growth as self-driving technology advances. As you may know, in the United States, 3,000 deaths a month are due to road accidents, where accidents could be addressed by improved technology. Automation in commercial vehicles could aid in preventing crashes caused by unsafe driving and road behavior. A clear policy framework is needed to advance safe development of autonomous commercial vehicles. Trucks must be included with automated cars in the same framework, if they are to share the same roadways. Waste Management believes the exclusion of trucking from the AV START bill will cause delays in the development of driverless truck technology, and negatively impact safety standards.

While moving quickly to regulate autonomous vehicles is critical in efficiently implementing this advanced technology, it is also critical that the process considers the inclusion of commercial vehicles, including trucks over 10,000 pounds.

Waste Management thanks Senator Inhofe for his inclusion of an amendment striking language that limits the bill to vehicles under 10,000 pounds. We thank you for your efforts.

Sincerely,

Tami Jackson Buckner

Tami Jackson Buckner
WM Federal Affairs

M: 202.236.6349
E: tbuckner@wm.com



Navistar International Corporation
2701 Navistar Drive
Lisle, IL 60532 USA

Troy A. Clarke
Chairman, President and CEO

P: 331.332.5000
W: navistar.com

October 3, 2017

The Honorable James Inhofe
U.S. Senate
205 Russell Senate Office Building
Washington, DC 20510

Dear Senator Inhofe,

As the Senate Commerce, Science and Transportation Committee prepares to vote on S. 1885, the AV START Act, I write to support the inclusion of commercial vehicles in the same regulatory framework as passenger cars.

I was disappointed to learn that the committee bill applies only to motor vehicles with 10,000-pound gross vehicle weight (GVW) or less, which excludes most commercial vehicles like delivery trucks, emergency vehicles and tractor trailers. **I applaud and support your efforts to amend the underlying legislation to include commercial vehicles with a GVW of 10,001 pounds and above.**

As I mentioned in my testimony before the committee, autonomous technology is an extension of the safety technology that is already being implemented in trucks today. Since unfortunately 94 percent of accidents are caused by human error, technology that holds the promise of eliminating or dramatically reducing collisions and fatalities is a critical priority. And for this technology to achieve its full promise, passenger and commercial vehicles must follow similar standards.

The bill is narrow in scope, but comes at a critical time for the future of the industry. Our design lead time and validation cycles are long, and for this technology to enable future advances in safety that will serve the interests of all the vehicles on the road, manufacturers need to have the assurance – today – that they are following similar standards for safety, including design, testing and validation. This is especially true for the future development of Vehicle to Vehicle (V2V) systems that allow cars and trucks to “talk” to each other. Conversely, the exclusion of commercial vehicles would set up a two-tier regulatory system that separates passenger cars from larger vehicles, potentially creating enormous blind spots that can lead to unnecessary hazards.

As the Committee continues to discuss autonomous technology on commercial vehicles, please feel free to use me as a resource. Thank you very much for your leadership on every important issue.

Sincerely,

Troy A. Clarke



Volvo Group North America

October 3, 2017

The Honorable James Inhofe
United States Senate
Washington, DC 20510

Dear Senator Inhofe:

I write on behalf of Volvo Group North America to support your amendment to include heavy duty vehicles in S. 1885, the AV START Act, during the markup in the Committee on Commerce, Science, and Transportation on October 4.

The Volvo Group is a world leader in commercial transport solutions, including trucks, construction equipment, buses, and marine and industrial engines. Volvo Group North America has more than 12,000 U.S. employees and manufacturing locations in six U.S. states. In the United States we produce heavy duty trucks under the Volvo and Mack brands, Volvo construction equipment, Volvo Penta marine engines, diesel engines and heavy duty transmissions, and Prevost and Nova city transit buses and coaches. We have been manufacturing in the United States since 1903.

We firmly believe that technology drives both improved safety and efficiency of the U.S. freight system, and the Volvo Group has long been a leader in developing and implementing safety technologies in our vehicles. Our goal is zero accidents, which can only be achieved by close cooperation between public, private and non-profit stakeholders.

Volvo Group believes that vehicle automation has significant potential to improve traffic safety and transport efficiency while reducing environmental and other societal costs. It also has the potential to increase road capacity with limited investment in road construction as more trucks could travel safely within shorter driving distances. We believe automation will make the driver safer and more productive.

The AV START Act would establish a sound regulatory structure for the design and manufacture of highly automated vehicles under the purview of the National Highway Traffic Safety Administration (NHTSA). We have been certifying our vehicles to comply with NHTSA's Federal Motor Vehicle Safety Standards since 1966. That longstanding federal framework provides heavy duty vehicle manufacturers with regulatory certainty that is necessary to efficiently design and produce compliant vehicles for our commercial customers that operate across state lines. It does not make sense to exclude heavy duty vehicles from this framework.

Transportation moves our economy, and we need every sector of our economy functioning to maintain growth and remain competitive globally. A strong infrastructure has a direct and vital impact on America's competitiveness. Technological innovations in the trucking industry can improve safety, while also helping to improve the efficiency and productivity of the network. The Federal government should continue to work collaboratively with the industry to ensure that these innovations are accepted in the market. Including heavy duty vehicles in the AV START Act would help ensure a successful outcome.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dennis Slagle", with a long horizontal flourish extending to the right.

Dennis Slagle
Executive Vice President, Volvo Group
and President, Mack Trucks, Inc.



October 3, 2017

Senator James Inhofe
Committee on Commerce, Science, and Transportation
United States Senate
205 Russell Senate Office Building
Washington, DC 20510

Dear Senator Inhofe:

On behalf of Uber Technologies, I thank you for your leadership in ensuring that all vehicles—passenger and commercial alike—are included in the AV START Act. We support your amendment to include commercial vehicles in this important bill. Trucks and passenger cars share our nation’s roads, so it is important that any legislation pertaining to self-driving technology is comprehensive, and thus subject to the same basic design and safety standards.

Trucks move a vast majority of the goods upon which we rely, and are a powerful symbol of the interstate commerce that drives America’s economy forward. This work, however, does not come without risk. Combination trucks represent only 1% of registered vehicles (and drive less than 6% of all miles traveled), but are involved in almost 10% of all crash fatalities.¹ This translates to someone dying in a crash involving a freight truck every three hours. Self-driving trucks could mitigate and prevent crashes, generating significant and outsized safety gains for all road users.

Self-driving trucks can prevent human errors while driving, which cause 87% of truck-related crashes.² This extends even to other vehicles on the road, because in addition to avoiding distractions and fatigue, self-driving trucks can “see” further, react faster, and predict cut-offs and other movements of neighboring vehicles.

Thank you again for your work on this important issue. We look forward to continuing our work with you, as well as Committee Chairman Thune and Senator Peters to advance this critical legislation.

Thank you,

Justin Kintz
Sr. Director, Public Policy & Communications

¹ [US DOT, FHWA, FMCSA, NHTSA](#)

² [FMCSA](#)



Embark Trucks Inc.
1408 Old County Road
Belmont, CA 94002

October 3, 2017

The Honorable James M. Inhofe
United States Senate
205 Russell Senate Office Building
Washington, DC 20510-3603

Dear Senator Inhofe,

Thank you for your longstanding leadership on the Senate Committee on Commerce, Science, and Transportation as an advocate for American innovation. We appreciate your keen understanding of how transportation powers the American economy.

We are writing to applaud you, as well as your colleagues Senators Cruz, Fischer, Gardner, Heller, Moran, Wicker, and Young, for supporting your amendment to add commercial vehicles to S.1885, the "American Vision for Safer Transportation through Advancement of Revolutionary Technologies" (AV START) Act. We offer our strong support for this important amendment.

Our company is a developer of automated trucks for long haul freight routes. This technology, when fully developed, will dramatically increase the safety and productivity of the freight trucking sector, a \$700 billion industry and the circulatory system of the American economy. Tragically, 11 people per day are killed in truck crashes, with the vast majority due to human error. Truck automation will allow trucks to operate safer, longer, and more efficiently, providing public safety and economic benefits. Our written testimony to the Committee further expands on these points.

At this early stage, it is critical that Congress does not pick winners among vehicle types, in keeping with NHTSA's automated vehicle guidance. Your amendment would ensure that truck and passenger vehicle automation technologies develop under the same provisions, including those related to federal preemption of equipment performance standards, safety evaluation reports, and cybersecurity plans. The current language excluding vehicles over 10,000 pounds would create uncertainty, leave industry to navigate a multitude of differing state regulations, and prevent the important safety provisions of AV START from applying to automated trucks.

This is only the beginning of what will likely be a long journey to determine the best way to regulate automated vehicles. We appreciate your sincere efforts to ensure AV START is technology neutral and supportive of innovation and public safety.

Sincerely,

A handwritten signature in black ink that reads "Alex Rodrigues".

Alex Rodrigues
CEO and Co-founder
Embark

A handwritten signature in black ink that reads "Jonathan Morris".

Jonathan Morris
Head of Public Policy
Embark



September 30, 2017

The Honorable John Thune
Chairman
Senate Commerce Committee
United States Senate
Washington, DC 20510

The Honorable Bill Nelson
Ranking Member
Senate Commerce Committee
United States Senate
Washington, DC 20510

The Honorable Gary Peters
United States Senate
Washington, DC 20510

Dear Chairman Thune, Senator Nelson, and Senator Peters:

Now that S. 1885, the American Vision for Safer Transportation through Advancement of Revolutionary Technologies Act (AV START Act), has been introduced, I would like to underscore some items from my September 13 testimony that should be included in the legislation.

With more than 100 people dying daily from car crashes, automated vehicles equipped with life-saving technology present one of the best opportunities in our lifetime to eventually drive these fatalities down the Road to Zero. However, the initial federal legislation must create a safe framework for the widespread rollout of these vehicles to ensure the manufacturers are accountable and the public has trust and confidence in the vehicles and the government's role to ensure safe operation. The first priority in the legislation establishing standards for automated vehicles (AVs) must be safety.

The National Safety Council (NSC) is a 100-year-old nonprofit committed to eliminating preventable deaths in our lifetime by focusing on reducing fatalities and injuries in workplaces, in homes and communities and on the road. Our more than 13,500 member companies represent employees at more than 50,000 U.S. worksites.

First, NSC is disappointed that commercial motor vehicles are not covered in the bill. Commercial trucks comprise 4% of all vehicles on the road but are involved in about 11% of fatal crashes. Motor vehicle crashes are the leading cause of death on the job (disproportionately affecting commercial motor vehicle (CMV) operators) and they share the roadways with passenger vehicles. Leaving CMVs out of the bill does not stop this technology from advancing in these fleets, it just allows it to continue without federal oversight.

With much more data available on our roadways and the vehicles that travel them, we should find a way to incorporate advanced technology equipment information into the vehicle identification number (VIN). Doing so would allow more and better data sharing and ensure dissemination of correct information about the variety of technologies that are and will be available. Also, to further the goal of providing correct information, fatal and serious injury crashes involving AVs should be reported to a common United States Department of Transportation database.



If we are to redouble our efforts to save lives, proven AV safety technology should be required on all vehicles. As an example, seat belts have saved over 300,000 lives since they have been required on vehicles. Some of these technologies could be the next seat belt, and they should be required.

Electronic logging devices (ELDs) and electronic data recorders (EDRs) provide a window into the human-machine interface with advanced vehicles. The knowledge gained from these devices allows manufacturers to make adjustments in near real-time to improve safety based on what is actually occurring in operation, rather than making changes based on assumptions and estimations that must be accommodated in a later model year.

Acquiring an understanding of what happens when systems perform as intended, fail as expected, or fail in unexpected ways yields is valuable information for suppliers who provide components to multiple manufacturers as well as researchers and the safety community in analyzing the safety benefits and potential limitations of these technologies as they continue to mature. Further, in-service data, as well as near miss and post-crash information sharing, can help civil engineers and planners design better and safer roadways, as well as help safety professionals design better interventions to discourage risky driving or affect the behaviors of other roadway users. Lastly, the health care community and emergency responders can benefit from real-time data about crashes and deploy appropriate resources to the scene.

To this end, Congress should facilitate data sharing as widely as possible by requiring that manufacturers provide accessible, standardized data to law enforcement, state highway safety offices, investigators, insurers, and/or other relevant stakeholders. Collecting and sharing de-identified data about near misses and other relevant problems would also help to aggregate vital performance information for the motor vehicle industry, allowing it to take proactive steps based on leading indicators rather than waiting for a crash or a series of crashes to occur.

I do appreciate the effort you have taken to highlight the importance of consumer education. The working group you have structured will be invaluable to the safe integration of technology into the fleet. Additionally, recognizing the need for documenting advanced technology in crash reports will provide much needed information to all involved. Finally, establishing a common nomenclature for the technologies will ensure we are speaking in the same language about the systems that will drive us and our vehicles into the future.

I applaud your bipartisan work on S. 1885, and I know we share the goal of saving lives. I hope you will consider the input provided here as you mark up the legislation next week. Lives depend on it. Sincerely,

A handwritten signature in black ink, appearing to read "D. Hersman", with a long, sweeping underline.

Deborah A.P. Hersman
President & CEO

cc: Senate Commerce Committee members



October 2, 2017

The Honorable John Thune
Chairman
U.S. Senate Committee on Commerce,
Science, and Transportation
512 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Bill Nelson
Ranking Member
U.S. Senate Committee on Commerce,
Science, and Transportation
716 Senate Hart Office Building
Washington, D.C. 20510

Chairman Thune, Ranking Member Nelson, and members of the U.S. Senate Committee on Commerce, Science, and Transportation:

The Competitive Enterprise Institute commends Chairman Thune and Senator Peters for their bipartisan efforts on modernizing the nation's automotive safety regulatory framework to allow for more rapid deployment of life-saving automated driving systems. CEI supports S. 1885, *American Vision for Safer Transportation Through Advancement of Revolutionary Technologies Act*, as an important first step for bringing these technologies and applications to market.

With highway fatalities now approaching 40,000 per year, it is more urgent than ever to allow for the deployment of technologies that address the primary cause of auto crashes: human error and misbehavior. Automated driving systems have the potential to reduce or eliminate the responsibility of human drivers, their unsafe decision-making, and the resulting harms.

Automated driving systems can also offer mobility-disadvantaged populations such as the disabled and elderly the prospect of personal travel options that are today either unaffordable or impractical for many.

We also urge the committee to integrate motor vehicles with gross vehicle weight ratings in excess of 10,000 pounds into the highly automated vehicle policy framework. The interests of truck drivers are important but not paramount. The efficiencies these technologies bring to transportation and logistics will result in lower costs to consumers who, particularly at the low end of the economic spectrum, need them badly.

Fears of imminent truck driver job losses are unfounded, as automated driving systems that completely eliminate the need for real-time human monitoring and direction remain years away, and narrow economic concerns based purely on speculation should not take priority over reducing the number of injuries and deaths on our nation's roads.

But even if the narrow private interests of professional drivers were to be weighed against the public interest in extending the highly automated vehicle policy framework across all vehicle classes, it is important to note that more than three times as many Americans are employed as on-the-job drivers compared to motor vehicle operators. Those employed in on-the-job-driving occupations stand to gain from increasing vehicle automation in terms of both productivity and workplace conditions,

according to a recent report from the Department of Commerce's Economics and Statistics Administration.¹

CEI appreciates the work done to date by committee members and would be pleased to discuss these issues with you further.

Sincerely,

Marc Scribner
Senior Fellow
Competitive Enterprise Institute

¹ Beede, David, Regina Powers, and Cassandra Ingram. Office of the Chief Economist, Economics and Statistics Administration, U.S. Department of Commerce. (August 11, 2017). The Employment Impact of Autonomous Vehicles (ESA Issue Brief # 05-17). Retrieved from <https://www.esa.gov/reports/employment-impact-autonomous-vehicles>.