

**Statement for the Record of John Bozzella  
President and CEO, Association of Global Automakers, before the  
House Committee on Energy and Commerce  
Subcommittee of Digital Commerce and Consumer Protection  
Hearing on “Self-Driving Cars: Levels of Automation.”  
March 28, 2017**

On behalf of the Association of Global Automakers (“Global Automakers”), I am pleased to provide the following statement for the record to the House Energy and Commerce Committee Subcommittee on Digital Commerce and Consumer Protection hearing on “Self-Driving Cars: Levels of Automation.”

Global Automakers represents the U.S. operations of international automobile manufacturers and automotive suppliers. Our automaker members design, build, and sell cars and light trucks in the United States and abroad, and these companies have invested \$56 billion in U.S.-based facilities, directly employ nearly 100,000 Americans, and sell 47 percent of all new vehicles purchased annually in the country. Combined, our members operate more than 300 production, design, R&D, sales, finance and other facilities across the United States.

By convening this hearing concerning the levels of motor vehicle automation, the Subcommittee recognizes the importance of accurately defining what automated vehicles are and what they can do. The term “automated vehicle” encompasses much more than the “self-driving” car that garners so much press these days. Rather, vehicle automation is evolving and will eventually entail a range of functionality depending on customer needs and on the business model of the developer. While the future may see the deployment of fully driverless cars, several automated and connected technologies are helping to improve safety on our roads *today*. Features such as adaptive cruise control and lane-keep assist provide support to the driver by enabling vehicles to assume a greater portion of the driving task. These technologies—which are foundational to the development of more highly automated systems—significantly enhance motor vehicle safety and the driving experience. As these systems become more advanced, a vehicle’s capability to operate without the active control by the driver will increase. Additionally, increased penetration

of automated features will raise consumer awareness and familiarity with these advanced technologies and can help smooth consumers' transition to greater levels of automation.

It is important for policymakers to recognize that vehicle automation can cover a range of capabilities. SAE International has established a "Taxonomy" for automated vehicles in its Standard J3016, which defines different levels of automation, ranging from Level 0 (meaning no automation at all) to Level 5 (where a car can drive itself in all conditions with no supervision or input from a human driver). The Department of Transportation's Federal Automated Vehicle Policy uses this Taxonomy, which Global Automakers supports. The use of uniform definitions that recognize the various levels of automation is critical to consumer understanding of the technology and consistent treatment of automated vehicles on our roadways.

Unfortunately, state legislatures and regulators do not always follow or consider the SAE Taxonomy in their efforts to regulate automated vehicles. Over the past several years, we have seen a number of state proposals using varying definitions for automated vehicles, and in many cases these definitions do not account for increased levels of automation. Indeed, in some instances the definitions are so poorly constructed that they would unwittingly ban the sale and operation of technology in cars on the road today.

This is why federal leadership on automated vehicle policy is so important. Decisions made today will determine how fast and how far our systems evolve, and inconsistent policy approaches—particularly as they relate to vehicle characterization, performance, and design—could have significant long-lasting impacts. The federal government must develop a framework to encourage the development of highly automated vehicles, and work with state and local policymakers to provide guidance and establish clear policy roles and responsibilities. In our view, the traditional lanes of federal and state responsibility should apply with respect to automated vehicles: the federal government is responsible for safety standards that impact the design and performance of motor vehicles while states handle matters such as driver responsibility, insurance, and registration.

We therefore believe that Congress should preempt state laws and regulations that prescribe design and performance standards for automated vehicles. This concept is deeply enshrined in the structure of the current Motor Vehicle Safety Act, which recognizes the limited role states

play in regulating the safe design of motor vehicles. This structure should be no different for advanced motor vehicle safety technologies that rely as much on computer software as they do on hardware. State preemption essential to ensure that automakers are not subject to conflicting state regulations that will undoubtedly slow the pace of innovation, and limit the ability to manufacture vehicles that can operate in all 50 states.

It is also important for policymakers to recognize that there is an additional aspect of automation that needs to be considered in order to support the safety and mobility benefits of these emerging technologies: vehicle connectivity. Cars equipped solely with sensors such as radar, LIDAR and cameras will have limitations on the way in which they can sense the surrounding environment and interact with the vehicles on the road around them. Dedicated Short Range Communications (DSRC) supports “vehicle to everything” (V2X) communications, allowing cars to wirelessly connect to other road users and the surrounding infrastructure to effectively “see” around corners and through vehicles to achieve greater 360-degree situational awareness. DSRC can work alone as a sensor to inform or warn the driver to avoid a crash, or it can work in concert with other sensors and vehicle systems to support automated driving features, such as cooperative adaptive cruise control.

Soon, we will begin sharing our roads with automated vehicles. DSRC is the code that connects the automated vehicle world together—the communication standard that will ensure, regardless of mode or automation, vehicles are talking to each other, and that they are speaking the same language. This technology is already on the road today and ready for widespread deployment. The Department of Transportation has recognized the life-saving potential of DSRC and has issued, with the support of vehicle manufacturers, a proposed rule to create a new safety standard that would require new vehicles to be equipped with this technology and transmit a wireless basic safety message to support vehicle-to-vehicle (V2V) communications.

While the V2V rulemaking is a critical step in the right direction, it is important to understand that DSRC technology will create a new wireless transportation application ecosystem that will enable safer, smarter, and more efficient travel. DSRC operates over the 5.9 GHz spectrum band, which is important as it supports the low-latency communications needed for DSRC vehicles to speak to each other and the surrounding infrastructure (at the rate of ten messages per second).

The safety-critical applications in development throughout the DSRC band will support not only V2V, but also vehicle-to-infrastructure and vehicle-to-pedestrian communications, as well as DSRC applications to support automated features and highly automated driving. Finalizing this proposed rule and protecting DSRC from harmful interference in the 5.9 GHz band will provide the transportation industry, including original equipment manufacturers and aftermarket suppliers, with the necessary federal standards and certainty needed to increase deployments of this revolutionary technology.

Global Automakers and our member companies believe that connected and automated vehicle technologies can provide significant benefits. If policymakers can ensure an environment where innovation is permitted to thrive, connected and automated vehicles can truly transform the way we move goods and people. Already automated and wireless connectivity have revolutionized our economy, and bringing these innovations further into the transportation sector will be no less groundbreaking. Congress must work with all stakeholders to ensure that we have consistent rules for the deployment of automated and connected vehicles of all levels, and that the necessary policies are in place to support continued investment and education so that the labor market can adapt over time to support the new jobs and opportunities created by these new technologies.