STATEMENT

OF THE

ALLIANCE FOR AUTOMOTIVE INNOVATION

BEFORE THE:

SUBCOMMITTEE ON INNOVATION, DATA, AND COMMERCE

COMMITTEE ON ENERGY AND COMMERCE

U.S. HOUSE OF REPRESENTATIVES

HEARING TITLE:

"Self-Driving Vehicle Legislative Framework: Enhancing Safety, Improving Lives and Mobility, and Beating China"

July 26, 2023

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ALLIANCE FOR AUTOMOTIVE INNOVATION

Chairman Bilirakis, Ranking Member Schakowsky, Chair McMorris Rodgers, Ranking Member Pallone, and distinguished members of the Committee: on behalf of the Alliance for Automotive Innovation (Auto Innovators) and our members, thank you for the opportunity to appear today to share my perspective on the urgent need to advance federal legislation for autonomous vehicles. Not only is federal legislation essential for the future development of AV technology in the United States, it is also vital to the future of U.S. leadership in the automotive industry.

Equally important to the future of America's economic leadership is what this technology can mean to the citizens of this country. The whole motivating premise in developing the autonomous vehicle was one of safety. We should not be satisfied with more than 40,000 people dying on our roads every year. We should also not be satisfied with entire communities, such as our seniors or people with disabilities, being cut off from the social, economic, and personal liberty that comes from access to personal or public mobility.

Auto Innovators was formed in 2020 to serve as the singular, authoritative, and respected voice of the automotive industry in the United States. Our members represent the full automotive industry, from the manufacturers producing most vehicles sold in the U.S. to autonomous vehicle innovators to equipment suppliers, battery producers, and semiconductor makers. As the nation's largest manufacturing sector, the automotive industry is responsible for nearly 10 million U.S. jobs and contributes $1 trillion to the U.S. economy each year – representing nearly 5 percent of the country's gross domestic product.[1]

Leadership in automotive technology and manufacturing has underpinned a century of U.S. economic growth and innovation. As we look to the future, however, the industry's economic footprint is less certain. The ability of the auto industry to maintain its position in our economy rests on our country's leadership in, and acceptance and integration of, the innovative technologies - including automation, electrification, and connectivity - that will define the future of mobility.

[1] https://www.autosinnovate.org/EconomicImpactReport

It is no longer a question of whether these technologies will prosper. Rather, it's a question of where. Nations around the world are moving aggressively to lead the development and deployment of these emerging automotive technologies. These same nations have clearly recognized that, as we have witnessed with respect to other sectors, those that lead the development and deployment of these technologies will also guide the development of international standards, control supply chains, and drive international markets.

Other nations are not waiting for U.S. leadership on AVs. Quite the contrary; they are supporting the development of this new industry, regulating AVs, and seeking to become the global center of AV development and deployment. In Japan, Level 3 vehicles have been on the road for multiple years. In Europe, nations have advanced national frameworks to support AV technologies.

Most importantly, given the intense national and Congressional interest in competition with China, you should be aware that nation, in particular, is moving quickly to advance their national progress in developing AV and related-AI technologies. In fact, three of the seven AV developers approved for testing in California are Chinese companies.

I do not state this lightly - The future of this highly competitive, capital-intensive industry hangs in the balance. The next decade will define which nations shape the future of automotive innovation and manufacturing. If U.S. policymakers do not support the development, commercialization, and acceptance of automated vehicle technologies, our nation risks becoming dependent on foreign sources in a future defined by others.

If you think this sounds hyperbolic, look no further than the shift to electrification and the electric vehicle battery supply chain. For well over a decade, China made strategic investments in EV technologies and supply chains, placing that nation – and its manufacturers – in a position of strength as the global shift to electrification gains momentum. Supply chains do not emerge overnight and while our members are fully committed to the electric future, we also cannot snap our fingers and magically overcome nearly two decades of investment and innovation by a

foreign competitor. It is fairly simple – China moved first and now they are in a position of strength as other nations play catch-up in the transition to electric vehicles.

We risk a similar future for AV technologies if we do not advance a clear and effective federal regulatory framework that facilitates and supports the commercialization of this technology at scale in the U.S.

This is not just about global competitiveness and economic benefits. It is the societal benefits of this technology that make it most compelling. At its core, AV technology is a safety technology. Following multiple years of increased fatalities on American roads, AVs likely offer the most significant opportunity to reduce the number of tragedies on our roadways.

While safety remains a core principle in the need for and development of AVs, these technologies have more to offer beyond safer streets. For example, they have the potential to provide life-changing opportunities for those who are not adequately served by existing mobility options, such as seniors, persons with disabilities, and others who require accessible transportation. In addition, as demonstrated during the COVID-19 pandemic, AVs also offer new transportation and delivery solutions to communities and individuals in need.[2] And they open the door to new possibilities for reducing congestion, improving the environment, and creating more efficient, worker-friendly supply chains.

As a global leader in the development of AV technologies, the U.S. has the opportunity to drive AV innovation into the future. In December 2022, Auto Innovators released a comprehensive report on the AV industry in the U.S. which documents 84 AV companies operating in 120 cities across 30 states.[3] This includes nearly 170 on-road autonomous technology programs operating throughout the U.S. These real-world programs further research and validation of these key

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[2] See e.g., Jane Lanhee Lee, Nathan Frandino, *Reuters*, "Self-driving vehicles get in on the delivery scene amid COVID-19," (April 29, 2020) *available at* https://www.reuters.com/article/us-health-coronavirus-self-driving-deliv/self-driving-vehicles-get-in-on-the-delivery-scene-amid-covid-19-idUSKBN22B2LZ.

[3] https://www.autosinnovate.org/posts/papers-reports/AV%20Report.pdf

technologies, bringing with it not only technological leadership, but jobs, investment, tax revenue and local economic growth.

This is not theory. This is happening now. In the last several years, we have witnessed the blossoming of multiple business models and use cases for this technology. We have automakers developing – and, in limited circumstances, offering for sale – Level 3 systems for consumer vehicles. We have innovative companies developing software based autonomous systems which one day may offer greater and more affordable levels of autonomy for consumer vehicles. We have companies advancing Level 4 ride hailing services, some of which are operating 24/7, 365 days a year in some of the most complex urban environments in the U.S. We have companies developing unmanned local delivery vehicles. And this doesn't even account for additional work being done in shuttles, transit, and freight applications. All of these use cases are important as they offer new and evolving benefits, as well as multiple opportunities for the public to witness, engage, and ultimately gain comfort with autonomous technologies.

As these technologies have matured, however, the federal regulatory landscape has not. Current federal regulations still serve as a barrier to the deployment of these technologies at scale. For example, companies looking to sell a consumer vehicle with a Level 3 system must navigate a labyrinth of state laws and regulations to determine where the system can operate, which will only create confusion for consumers. Similarly, companies developing purpose-built vehicles for ride sharing or other applications lack any level of certainty necessary to scale the development of their fleet or operations. A federal regulatory environment that provides a clear, predictable, and safe pathway to commercialization with appropriate oversight is urgently needed in order to realize many of the promises of this technology. Absent that, I fear we may witness the demise of the AV industry in the U.S.

In fact, until last year, a company called Argo was viewed as one of the most promising U.S. developers of AV technology. Backed by two large automakers, Argo was testing its technology in cities across the U.S. and had nearly 2000 employees. Last fall, faced with the lack of certainty for continued development of AV technologies in the U.S, as well as the massive capital pressures associated with the shift to electrification, the companies supporting Argo made

the tough decision to focus their resources elsewhere. In this time of massive transformation for industry, companies cannot afford to endlessly allocate massive capital into the void of uncertainty. If our federal policy and regulatory environment does not change course, I have serious concerns that Argo's fate may be a bellwether for other promising U.S. companies and, ultimately, the entire AV industry in the U.S.

That is why a federal framework for the safe and responsible deployment of AVs in the United States is so important. Consistent with the Department of Transportation's principles for innovation, this will help preserve U.S. leadership in these potentially life-saving and life-changing technologies and ensure U.S. innovations benefit the traveling public and our economy for decades to come.

With a technology like AVs, the implications will be felt far beyond transportation. For example, AVs are directly tied to the development of artificial intelligence systems. As noted in a report by the Center for Strategic and International Studies (CSIS):

> The AV sector is a critical lynchpin to U.S. leadership in Artificial Intelligence (AI). In 2019, the AV industry led all other AI sectors as a destination for global investment. As autonomous vehicles (AVs) move toward commercialization, the regulatory environment can be a source of advantage. Yet, in the global AV race, Beijing currently holds the regulatory advantage due to its commitment to being a first-mover in AI and AV, giving Chinese companies more freedom to test vehicles and collect valuable data. In order to compete with China, the United States must adopt a regulatory framework that allows space for US companies to continue to gather additional data of their own that can be used to innovate and keep pace with competitors.[4]

This is not simply a question, therefore, of global or economic competitiveness. It is about defining the future of this technology - and associated infrastructure - in a manner that emphasizes safety, responsibility, and opportunity for more citizens to benefit from this transformative shift in mobility.

[4] https://www.csis.org/analysis/ai-strategies-and-autonomous-vehicles-development

To maintain the global competitiveness of our auto industry, the federal government must actively support and promote AV development and commercialization in the U.S. This includes rapidly accelerating efforts at the U.S. Department of Transportation to update existing motor vehicle safety standards to accommodate AVs, use its existing authority to grant targeted exemptions to AV developers that have demonstrated safety equivalence, and implement the innovative AV STEP program announced earlier this month to provide an enhanced deployment pathway for AVs in the near-term. In addition, in December 2020 Auto Innovators released the *AV Policy Roadmap* which includes fourteen specific recommendations that can be implemented by federal policymakers over the coming years to facilitate the near-term testing and deployment of AVs at scale.[5] These recommendations are focused on reforming regulations, harmonizing policies, and laying the foundation to achieve longer-term objectives - including expanding the number of exemptions that U.S. DOT can provide on a case-by-case basis - with safety oversight and full enforcement powers - which can then provide the data necessary to support future Federal Motor Vehicle Safety Standards for AVs.

While these are all things that need to happen, the U.S. Congress – and in particular this Committee – are uniquely positioned to MAKE them happen. Clear federal AV legislation is critical to provide the certainty necessary for the U.S. to lead the AV future. I want to focus on two critical components of any federal legislation.

First, as we are all aware, the pace of AV innovation is occurring faster than DOT can update the existing Federal Motor Vehicle Safety Standards (FMVSS). While the DOT has taken important steps to research and request comment on existing FMVSS barriers for AVs, much work is needed to account for the fact that manual driver controls, such as the steering wheel, brake pedal and gear shifter, may no longer be needed in certain types of automated vehicles. In the interim, FMVSS exemptions are necessary to act as a bridge for the safe deployment of AV technologies which will then help generate the real-world data that is needed to establish new safety standards for AVs – which, to be clear – we also support. The existing exemption process at NHTSA has a

[5] https://www.autosinnovate.org/innovation/AVRoadmap.pdf

current threshold of 2,500 vehicles per manufacturer. This annual 2,500 vehicle threshold should be substantially increased if we truly want to realize the safety, economic and social benefits of AVs. Reforming and expanding this process provides a critical tool for NHTSA to gather the data it needs for future regulations and for the companies developing unique vehicle designs to continue scaling their deployment here in the U.S.

Second is the need to reinforce and clarify the roles of federal, state and local authorities for automated vehicle technologies. The current lack of clarity could result in a unworkable patchwork of laws and regulations developing across the country that will hinder the ability for automated vehicle technologies to be safely deployed, thereby delaying or negating the safety benefits (and the collection of real-world data) that would otherwise occur. We firmly believe that states should continue to have jurisdiction and oversight of the operation of vehicles on public roads, driver licensing, including traffic laws, vehicle registration, insurance, licensing, and enforcement. However, it is not helpful to anyone if there are conflicting laws and regulations when it comes to a vehicle's design, construction, and performance. This Committee has a long history of understanding the importance of uniform vehicle standards, and we are committed to working with the Committee and state and local stakeholders to find the right balance on this important issue.

It is critical we get these key components correct – and soon. They are integral to both our near and long-term success in leading the development – and regulation - of this technology. I will also be the first to acknowledge that any AV legislation passed by this Congress will be far from the final word on the subject. This is a transformative technology and, as such, it will introduce a litany of questions, concerns, and challenges as society adapts to its influence over time. This will not, however, happen overnight and you have my full commitment to work collaboratively to address important questions around this technology as it matures and evolves. But if we do not take this modest and essential first step forward to sustain U.S. leadership in developing this technology, we will not only lose the opportunity to address those concerns, but also the innumerable benefits of this technology.

We are approaching a pivotal moment in the evolution of this technology and have an opportunity to work collaboratively to chart a course that sustains U.S. leadership and innovation in these critical safety and mobility solutions for decades to come. It is not just about the future of the auto industry - it is about the nation's global competitiveness and economic security.

From my perspective as the President and CEO of the Alliance for Automotive Innovation, there are no other safety or mobility solutions that hold as much promise or provide as many benefits to the traveling public as autonomous vehicle technologies.

The industry is committed to this future but we cannot do it alone – nor do we want to. It will take all of us to realize the benefits of AV technologies. Consumers must trust the technology. Companies must earn that trust. And policymakers – at all levels – must implement the policies that facilitate those shared objectives.

The worst possible outcome would be to do nothing and continue to accept the status quo.

AV technologies are no longer a concept – some utopian ideal not based in reality. The technology is here and ready to scale. The question we must all ask ourselves is whether the U.S. will continue to be a leader in defining the future of personal mobility or allow it to be defined by others?

This Committee has a proud history demonstrating leadership on these issues in a bipartisan and collaborative fashion. This Congress has a tremendous opportunity to advance highway safety, expand mobility, and solidify the U.S. as the leader in automotive safety and mobility technology. In a challenging legislative environment, it's fair to say that few other likely actions by Congress this year could deliver benefits as far-reaching and wide-ranging.

We look forward to continuing to work with you and your colleagues in Congress, as well as the Administration and other stakeholders, to realize the benefits of a safer, more environmentally friendly, accessible, and equitable U.S. transportation future.