



August 1, 2022

Nuria Fernandez
Administrator
Federal Transit Administration
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 20590-0001

RE: Request for Information on Transit Bus Automation Research and Demonstrations

Dear Administrator Fernandez:

The Alliance for Automotive Innovation (“Auto Innovators”) is pleased to submit comments to the Federal Transit Administration (“FTA”) in response to its request for information on Transit Bus Automation Research and Demonstrations. Auto Innovators welcomes this opportunity to provide input on this important topic and looks forward to continuing to work with FTA and other stakeholders within the Department of Transportation (“Department”) to advance the development and commercialization of automated vehicle (AV) technology.

Auto Innovators is the singular, authoritative, and respected voice of the automotive industry. Auto Innovators represents the manufacturers that produce nearly 98 percent of cars and light trucks sold in the United States, original equipment suppliers, technology companies, and other value-chain partners within the automotive ecosystem. The automotive industry is the nation’s largest manufacturing sector, representing approximately 5.5 percent of the country’s GDP, and is responsible for roughly 10 million jobs.

Auto Innovators is committed to a cleaner, safer, and smarter transportation future. AVs have the potential to play a significant role in realizing this vision. By combining advanced sensing technologies with artificial intelligence to avoid crashes, AVs have the potential to reduce the number of fatalities on our nation’s roadways. Unlike conventional human drivers, AVs cannot get distracted, drive impaired, or fall asleep at the wheel. In addition, AVs hold promise to provide numerous other societal and economic benefits, including increasing access to mobility, reducing congestion, improving transportation equity, and ensuring global competitiveness. In the transit context, AVs also have the potential to expand the reach of public transit to those who currently do not have access. For example, AVs can supply a first- and last-mile complement to existing public transit networks and may provide smaller or more scalable, on-demand options that facilitate greater flexibility and door-to-door accessibility than fixed route buses.

While AV-related transit research remains relevant and important, the Department should prioritize the implementation of a comprehensive federal framework for AV deployment. The U.S. is currently at the forefront of this transformative innovation and is well-positioned to continue to drive its development and deployment. According to KPMG, the U.S. is home to the headquarters and testing locations of more than 425 AV companies.¹ In fact, AV companies continue to safely test vehicles in California, Arizona, Nevada, Texas, Florida, Michigan, Pennsylvania, and other states, bringing technological leadership, jobs, investment, tax revenue, and economic growth to these communities. However, as these technologies mature, developers need a reliable and viable pathway to commercial deployment in the U.S.

In December of 2020, Auto Innovators released an AV Policy Roadmap (“Roadmap”).² The Roadmap includes 14 specific recommendations for federal policymakers to advance the testing and deployment of AVs at scale in the U.S. These recommendations include, among other things, the establishment of a large-scale pilot or demonstration program for AV testing and commercial deployment. A pilot or demonstration program can enable the safe and responsible testing and deployment of AVs at a wider scale under the direct oversight of the Department. Importantly, it can provide an avenue for the federal government to advance its AV-related research objectives, including transit-related objectives, and to gather the data that it needs to establish a longer-term, permanent AV regulatory framework and corresponding policies. At the same time, an AV pilot or demonstration program can foster additional public exposure to the technology to help overcome some of the consumer acceptance challenges associated with automated technologies. We strongly urge FTA to work with the National Highway Traffic Safety Administration and others within the Department to expeditiously implement such a pilot or demonstration program.

One way in which AVs could be integrated into public transit systems is through focused public-private partnerships. Rather than deploying AV services on their own, local transit agencies may consider collaborating with on-demand AV fleet providers to provide AV services that supplement their existing services. How best to foster, maintain, and oversee such partnerships could be a focus of research for FTA’s research program and may provide a foundation for future guidance to local transit agencies in integrating AVs into their transit operations. Any efforts in this area should include targeted stakeholder outreach to AV fleet providers who may be interested in collaborating with local transit agencies to provide such services.

Auto Innovators shares FTA’s interest in improving transportation equity and recognizes the potential for AVs to help achieve that goal. To this end, the Department – in coordination with FTA – should consider issuing guidance for AV service providers, transportation planners, and transit agencies that clearly defines “communities of concern” for purposes of transportation equity. In addition, guidance that clarifies state and local government obligations related to transportation equity for shared mobility services, including those using AVs, that are used by transit agencies to provide services to the public should be explored. Finally, the Department should consider developing a consistent framework and methodology for assessing equity across transportation modes, including transit.

¹ <https://assets.kpmg/content/dam/kpmg/xx/pdf/2020/07/2020-autonomous-vehicles-readiness-index.pdf>

² <https://www.autosinnovate.org/innovation/AVRoadmap.pdf>

At the same time, FTA should consider investing in research to better understand the equity impacts and benefits of integrating AVs into public transit and to assess how AVs impact transportation equity. Any assessment of equity impacts should include how the impact of AVs compare to other modes of transportation and how the equity impact of AVs changes over time.

Auto Innovators appreciates FTA's recognition that automation will not replace transit bus operators in the foreseeable future. We further share FTA's perspective that it is important to understand and prepare for any potential impacts of automation. Auto Innovators recently released a document providing real-world examples of how AV technology and a 21st century American workforce can complement each other.³ Among other things, the document includes recommendations on preparing the workforce for AVs that should be considered by FTA, as well as other government and non-government stakeholders. This includes prioritization of K-12 educational curriculums and higher education programs, including those at community colleges, that are focused on teaching the skills that are necessary for future job opportunities. Education and training programs should prepare workers for job opportunities in the emerging AV industry at all skill levels. Resources – including access to meaningful and targeted training programs – should also be provided to help people whose jobs may be impacted in the future take advantage of existing and near-term job opportunities, including those in the AV sector and in the skilled trades that will support an AV future. Auto Innovators encourages FTA to engage in, further facilitate, and disseminate solutions-oriented research to help transit agencies and their workers adopt and prepare for AVs.

Auto Innovators also supports efforts by FTA to help improve the accessibility of AVs. However, significant foundational work remains to facilitate independent accessibility of AVs for those with disabilities. Auto Innovators supports focused research by FTA into accessible AVs. This includes the development of cross-industry standards for a Wheelchair Tiedown and Occupant Restraint System (WTORS) that will allow for independent use by a wheelchair user, protect occupants in both low-g and high-g environments, and provide for interoperability between and among wheelchair manufacturers and vehicle manufacturers. This also includes the creation of a compendium of best practices and guidance based on existing research that AV companies can consider when designing accessible AVs and the development of a best practices document, including appropriate technical specifications, that manufacturers can use when developing accessible AVs.

Finally, there is significant, ongoing work throughout the Department to facilitate the development and adoption of AVs in the U.S. To ensure maximum consistency throughout the Department, we encourage FTA and the other modal agencies with the Department to continue to coordinate on AV technology. This includes identifying opportunities to work together to remove any regulatory impediments to the technology and to collaboratively foster its deployment. In addition, with respect to opportunities or challenges – such as cybersecurity, sustainability and climate impacts, or domestic manufacturing support – that may impact AV technology broadly, we encourage FTA to align and harmonize its efforts with those of other modal agencies.

³ <https://www.autosinnovate.org/innovation/Benefits%20of%20HAVs/AV%20Workforce.pdf>

Auto Innovators appreciates its ongoing collaboration with the Department on AV technology. We look forward to continued engagement on this and other matters.

Sincerely,

A handwritten signature in black ink, appearing to be 'H. Cain', with a horizontal line extending to the right.

Hilary M. Cain
Vice President
Technology, Innovation, & Mobility Policy

