The Chamber Technology Engagement Center (“C_TEC”) appreciates the opportunity to provide our perspectives to your inquiry about how the automotive industry is meeting the challenges of the COVID-19 pandemic. C_TEC also applauds your continued leadership to support the safe development, testing, and deployment of automated vehicle technology.

The pandemic has strained our healthcare system, disrupted our daily lives in unprecedented ways, and taken the lives of more than 100,000 Americans. A corresponding economic crisis has left 40 million American unemployed and is bringing millions of small businesses and startups to the brink of permanent closure.

C_TEC recognizes that industries from every sector are embracing technology in order to mitigate the risks of the coronavirus and get Americans back to work. One such technology, automated vehicles, can play a critical role to support businesses and communities now and in the future.

**Automated Vehicle Technology & COVID-19**

The pandemic has also demonstrated the importance of technology and how innovation can keep us connected both virtually and physically, solve complex problems, and build resiliency for future crises. Automated vehicle technology can play a crucial role in this crisis and in future crises. At C_TEC’s recent event on “Tech in the Time of Coronavirus,” Bill Moye, CEO of Beep, an autonomous mobility company, and Bernard Schmidt, Vice President of Automation at the Jacksonville Transportation Authority, discussed how autonomous shuttles are being used to transport critical medical supplies at the Mayo Clinic in Jacksonville, Florida to better protect frontline hospital workers and patients.

Also, several automated vehicle developers are utilizing their technology to deliver critical supplies. Cruise has conducted more than 20,000 deliveries to frontline workers and Embark Trucks has used its trucking fleet to deliver essential goods in California and Arizona.
Overall, the deployment of automated vehicles can assist in providing contactless delivery and preventing disruptions in the supply chain.

**Advancing Automated Vehicle Technology**

Moving forward, it is imperative Congress and federal regulators take a leadership role and facilitate the safe development, testing, and deployment of automated vehicle technology. In addition to the well-known benefits to safety and mobility, widespread automated vehicle deployment will also strengthen the resiliency of our transportation system and supply chains.

While the United States remains the hotbed of innovation developing automated vehicle technology, American leadership is not guaranteed. China plans to ensure that by 2025, **30% of all cars** sold in China will have some level of automation and is projected to emerge as the largest market for automated vehicles at **$500 billion by 2030**. Also, China **has committed** to invest $1.4 trillion through 2025 to be the global leader in key enablers of automated vehicle technology such as advanced wireless networks and artificial intelligence.

C_TEC believes that policymakers can take several steps to ensure that the United States remains the leader in automated vehicle technology to unlock the numerous benefits of the technology. Policymakers should also consider C_TEC’s **Automated Vehicle Policy Principles** as a guidepost to developing such policy solutions.

First, the overarching principle of any legislation should be safety first. A safety-first approach to the development, testing, and deployment of automated vehicle technology will build public trust and ensure the safety promise of this technology.

Second, Congress should continue its present efforts to advance policy solutions in standalone legislation or broader legislation to advance automated vehicle technology. While there are numerous issues associated with automated vehicle technology, Congress should prioritize the following the policy solutions:

- Ensure a single, nationwide framework that would provide a consistent set of regulations across the United States that grant regulatory certainty and interstate commerce while preserving state and local responsibilities in areas such insurance and motor vehicle dealerships;
- Take a stakeholder and technology-neutral approach to the testing and deployment of automated vehicles, including through creating a level playing field for all stakeholders developing automated vehicle technology;
- Enhance the U.S. Department of Transportation’s (“DOT”) existing exemption authority through increasing the cap and duration of exemptions to encourage novel vehicle designs; and
- Modernize motor vehicle regulations in a performance-based and flexible manner to accommodate innovative approaches in automated vehicle technology.
Third, while Congress can take actions to proactively facilitate automated vehicle technology, Congress should avoid undertaking some policy proposals under consideration that could inadvertently hinder innovation and limit the potential of this technology, such as overly-prescriptive regulatory requirements and burdensome expansions of legal liability.

Fourth, Congress should encourage federal regulators at the National Highway Traffic Safety Administration and the Federal Motor Carrier Safety Administration to advance regulatory and non-regulatory actions to accelerate the development, testing, and deployment of automated vehicle technology.

Fifth, given the adverse impact of the economic crisis on technology startups, including those involved in automated vehicle technology, policymakers should explore solutions to ensure that the United States retains a vibrant ecosystem of start-ups to strengthen our competitiveness globally. This includes providing support for startup companies through programs such as the Paycheck Protection Program (“PPP”).

The Business Community’s Response to COVID 19

In addition to the benefits of automated vehicles, C_TEC would also like to recognize that the business community is working to find solutions presented by the current crisis. In response to the pandemic, the Chamber has been engaging on multiple fronts to support small businesses, American workers, and the public during this crisis.

First, the Chamber has developed and implemented a robust advocacy strategy at the state, national, and international levels to address the twin health and economic crises. Our priorities include enhancing multilateral health cooperation, supporting global supply chains, enacting and implementing critical CARES Act programs including the Economic Injury and Disaster Loan (“EIDL”) Program and the PPP, and promoting economic stabilization programs at the Federal Reserve.

Second, the Chamber has developed a suite of resources, guides, and programming to help small businesses navigate CARES Act programs such as PPP and EIDL, state guidance on essential workers, workplace safety tips, and many other topics. These guides have been downloaded or viewed over 3 million times and we have hosted over 100,000 people in virtual COVID-19 related events and meetings. Also, the Chamber has produced robust analyses of the economic impact of the pandemic on the economy, and in partnership with MetLife, we are conducting ongoing polling of small business sentiment to measure the impact of the pandemic on America’s small businesses.

Third, the Chamber released a National Return to Work Plan which outlines a series of issues that need to be resolved in order to reopen commerce and enable Americans to safely return to work. Major issues include guidance to protect the health of employees and customers, solutions to reduce regulatory and liability risks, and continued support for businesses disproportionatley impacted by a gradual reopening and for high-risk populations.
More broadly, companies in the automated vehicle ecosystem (e.g. insurers, original equipment manufacturers, technology companies, and others) have taken a leadership role to combat the pandemic and assist their customers, employees, and the public at large. Some examples of this leadership include:

- **Cruise**: Cruise has repurposed part of their autonomous vehicle fleet to aid their local partners such as the SF Marin Food Bank and SF New Deal to provide over 20,000 contactless food deliveries to front-line workers and at-risk populations across San Francisco. In addition, Cruise employees have personally raised $455,000 for pandemic relief efforts.

- **Embark**: Embark has suspended all on-road testing to comply with shelter in place orders. However, some Embark trucks have been on the road in California and Arizona in full manual mode with a single driver moving critical goods to support the pandemic response effort and keep essential freight flowing.

- **Enterprise**: Enterprise has committed to maintaining a high standard of cleanliness in the car rental industry through their Complete Clean Pledge program to ensure that their customers will feel safe to travel again. Also, Enterprise has modified its services to accommodate social distancing and minimal contact through curbside rental transactions and shifting towards low- and no-touch customer engagement.

- **Ford**: Ford has responded to the pandemic through producing Personal Protection Equipment (PPE) such as face shields for front-line medical response workers and have delivered nine million face shields across 50 states and Puerto Rico. In addition, Ford has partnered to manufacture 50,000 ventilators by early summer for hospitals across the country.

- **HERE**: HERE used data to create an interactive mapping and tracking tool displaying the spread of COVID-19 over time. The map provides an overview of the latest situation, including the total number of confirmed cases, as well as deaths and recoveries. HERE also introduced HERE WeGo Deliver, a delivery service that allows businesses to plan delivery routes and manage drivers directly, for no cost until the end of 2020.

- **Hyundai**: Hyundai has donated $4.3 million to 22 hospitals to support COVID-19 Drive-Thru Testing Centers, which have completed more than 200,000 tests. Also, Hyundai is supporting its customers through making payments up to six months to new owners who lost their jobs due to the pandemic and have extended the duration of customer benefits such as warranties and roadside assistance through early summer.

- **Toyota**: Toyota has donated $8 million to charities across the United States and has donated more than 50,000 PPE items to those most in need. Also, by June 1st, Toyota will have manufactured and donated 500,000 face shields using innovative technologies such as 3D printing to quickly design and scale production.
• **TuSimple**: TuSimple has utilized its fleet of autonomous trucks to continue providing essential goods to consumers and has also provided pro-bono loads to the Arizona Food Bank and their network.

• **USAA**: Among the many ways it is helping members, USAA is returning $800 million in dividends to all auto insurance policyholders based on fewer drivers on the road during COVID-19 stay-at-home orders, via a 20% credit on three months’ worth of premiums. USAA and The USAA Foundation, Inc. have also invested over $10.7 million in support of COVID-19 response with national, military-focused and local nonprofits.

• **Velodyne Lidar**: Velodyne is partnering with automated vehicle, mobility and robotics leaders to enable a variety of automated systems and robots to provide touchless delivery, disinfection services, and fever detection services that will mitigate the impact of the pandemic. Velodyne’s partners include: Badger Technologies, Gatik, Knightscope, Local Motors, Optimus Ride, Outsight, Udelv, Voyage

**Conclusion**

Companies across America are embracing technology to assist in the fight against the pandemic. In particular, the United States must not cede its innovative edge in the automated vehicle and mobility revolution and neglect the benefits in safety, mobility, and resiliency garnered by widespread automated vehicle technology deployment. C_TEC again thanks you for your leadership in Congress on automated vehicle technology innovation and stands ready to assist you and your colleagues to move this technology forward.

Sincerely,

Tom Quaadman