Consumer Technology Association™

1919 S. Eads St.
Arlington, VA 22202
703-907-7600
CTA.tech

BY ELECTRONIC SUBMISSION

Docket Management Facility
U.S. Department of Transportation
West Building, Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

Re: **Request for Comments on Advance Notice of Proposed Rulemaking:**
Pilot Program for Collaborative Research on Motor Vehicles with High or Full Driving Automation
Docket No. NHTSA-2018-0092

Dear Sir or Madam:

The Consumer Technology Association ("CTA") appreciates the opportunity to comment on the request of the National Highway Traffic Safety Administration ("NHTSA") for feedback on a potential pilot program for collaborative research on motor vehicles with high or full driving automation (referred to herein as "highly automated vehicles" or "HAVs").

CTA is the trade association representing the $377 billion U.S. consumer technology industry, which supports more than 15 million U.S. jobs. Our membership spans the full ecosystem of companies working to bring automated driving innovations to America's roadways, including vehicle and component manufacturers, software developers, transportation platforms, and companies engaged in multiple areas of this frontier industry.

CTA members and other industry participants are testing HAV technologies throughout the country, as permitted by applicable law. NHTSA's research can complement these efforts by informing the policy framework for highly automated vehicles, which will support the wider deployment of innovations that have the potential to save thousands of lives.

Any pilot program or other research initiative the agency undertakes should be guided by the "Automation Principles" identified in *Preparing for the Future of Transportation: Automated Vehicles 3.0* ("AV 3.0"), the U.S. Department of Transportation's most recent policy guidance on automated vehicles. NHTSA's commitment to the principles of technology neutrality, regulatory modernization, and consistency are fundamental to advancing the first principle of safety. A flexible approach that accommodates a wide range of technologies and industry participants will allow the best-performing solutions to distinguish themselves, and support continued innovation. NHTSA's research findings can help the agency ensure that outdated or inconsistent regulations do not create an obstacle to HAV testing and deployment.

Consistent with these principles, we urge NHTSA to structure any potential pilot program to complement, rather than supersede, existing pathways for vehicle testing and deployment. Importantly, participation in a pilot program should not be mandatory to conduct vehicle testing or to receive exemptions from the Federal Motor Vehicle Safety Standards ("FMVSS"). Instead, NHTSA should maintain flexibility for industry participants to test and deploy technology in the way that makes the most sense for individual companies.

We also urge NHTSA to broaden the scope of the potential pilot program beyond light-duty vehicles. Innovation is accelerating across multiple categories of the motor vehicle industry, and NHTSA's research activities must keep pace. Including heavy-duty vehicles within the pilot program's scope will maximize research, testing, and deployment opportunities for these vehicles.

CTA appreciates NHTSA's thoughtful and deliberate approach to consideration of a pilot program for HAVs, including the opportunity for stakeholder comment not only at the ANPRM stage but also if and when the agency decides to proceed with a pilot program and further defines its structure. The comments below are focused on the specific questions posed by NHTSA where our perspective on behalf of a broad cross-section of industry participants is most relevant and responsive. CTA and our member companies value our collaboration with NHTSA on HAV policy issues to date, and look forward to continuing our productive dialogue on advancing vehicle safety through technology.

Question 1. What potential factors should be considered in designing the structure of a pilot program that would enable the Agency to facilitate, monitor and learn from on-road research through the safe testing and eventual deployment of vehicles with high and full driving automation and associated equipment?

As indicated above, CTA believes that AV 3.0's "Automation Principles" are guiding considerations for a pilot program. The principle of technology neutrality is particularly important to ensure that the program accommodates different approaches and perspectives among the various types of companies pursuing HAV innovations.

This principle is implicit in AV 3.0's discussion of pilot testing and proving grounds, which notes that the "Department does not intend to pick winners and losers or to favor particular automated vehicle proving grounds over others."[1] As a related point, the structure of a pilot program should provide flexibility for industry to develop and test technology in any location, without requirements to spread testing out among multiple locations or test in any particular geographies. This flexibility is essential to align with the way industry carries out HAV testing in practice, which is a dynamic process that can span multiple locations as development needs evolve. A pilot program that does not provide this flexibility would have limited utility for industry, and reduced potential to yield the safety insights that NHTSA is seeking.

Question 2. If NHTSA were to create a pilot program, how long would there be a need for such a program? What number of vehicles should be involved? Should NHTSA encourage the conducting of research projects in multiple locations with different weather conditions, topographical features, traffic densities, etc.?

Consistent with our response to Question 1, CTA supports flexibility in testing environments and discourages NHTSA from requiring pilot program participants to conduct testing in particular locations. The structure of a pilot program should reflect that HAVs are by and large designed to operate in specific environments. Requiring testing of these vehicles in locations or circumstances that fall outside these defined environments would not provide an

[1] U.S. DEP'T. TRANSP., PREPARING FOR THE FUTURE OF TRANSPORTATION: AUTOMATED VEHICLES 3.0 at 17 (2018).

opportunity to demonstrate the technology's intended operation when deployed. The Department of Transportation's decision not to recognize the ten designated "Automated Vehicle Proving Grounds" provides further validation of a more flexible approach.

Question 3. What specific difficulties should be addressed in designing a national vehicle pilot program for vehicles with high and full driving automation either through the exemption request process relevant for FMVSS or more broadly related to other areas of NHTSA and/or other authorities.

NHTSA's priority should be to address barriers to HAV testing and deployment generally, not in a way that is necessarily tied to participation in a pilot program. These barriers include (1) provisions of the current FMVSS that assume the presence of a human driver, and thus inhibit the deployment of HAVs with non-conventional designs, (2) the time required to obtain exemptions from the FMVSS, (3) uncertainty about the information necessary to support exemption petitions, and (4) the restriction of certain vehicle testing and deployment pathways to existing vehicle manufacturers. Addressing these issues could help facilitate a pilot program, but NHTSA should pursue them independent of the decision to proceed with implementing such a program.

Question 4. How can existing statutory provisions and regulations be more effectively used in implementing such a pilot program?

NHTSA has already advanced several proposals to more effectively use its existing authorities. CTA supports the agency's planned rulemaking to set exceptions to certain FMVSS that are relevant only when human drivers are present. We are pleased that NHTSA has already issued a request for comments on this issue, and look forward to reviewing the agency's proposed changes as soon as possible.

We also support the agency's plans to streamline and modernize its exemption procedures, including by expediting the public comment process and clarifying the information that is necessary to support exemption petitions. We encourage NHTSA to consider how its exemption authority can be used to provide a level playing field for vehicle testing for all industry participants. As the breadth of CTA's membership demonstrates, a wide variety of entities—including traditional OEMs, technology companies, and many others—are developing automated vehicle technologies. Using NHTSA's exemption authority to create a pathway for testing by component suppliers, technology companies, and other non-manufacturer industry participants would support the Department's mission of technology neutrality, as articulated in the "Automation Principles." We urge NHTSA to initiate rulemaking or other proceedings to optimize these aspects of its exemption authority as soon as possible.

Again, these initiatives could facilitate a potential pilot program, but should not be tied to its implementation.

Question 8. How should the Operational Design Domains of individual vehicle models be defined and reinforced and how should Federal, State and local authorities work together to ensure that they are observed?

NHTSA should allow individual companies to define their own Operational Design Domains ("ODD"). Approaches to defining a vehicle's ODD vary throughout the industry, making it difficult to establish or enforce a consistent methodology. The fluid nature of an ODD during development and its frequent tailoring to a particular development vehicle (rather than a model series) mean that individual companies are in the best position to define the ODD for a particular vehicle. Rather than delving into the specifics of defining an ODD, NHTSA should

simply require companies to operate within the defined ODD for a particular vehicle at a particular time.

Question 9. What type and amount of data should participants be expected to share with NHTSA and/or with the public for the safe testing of vehicles with high and full driving automation and how frequently should the sharing occur?

CTA's comments on the Department of Transportation's automated vehicle guidance have highlighted the sensitivities surrounding data sharing in the HAV context. Data sharing entails complex commercial, liability, and intellectual property considerations that bear directly on the incentives for HAV innovation. We have supported efforts to facilitate voluntary exchanges of data, because industry is in the best position to determine what information is most useful and appropriate to share and how to share it.

For these reasons, any data sharing obligations associated with a pilot program should be narrowly tailored to subjects that are clearly within the scope of NHTSA's jurisdiction over vehicle safety. If made too broad, data sharing requirements for a pilot program would create new logistical and technological challenges, each bringing their own attendant risks to safety and the ability to achieve the program's goals. Any data collection, retention, and reporting measures for a pilot program should require only the minimum amount of data necessary to evaluate any safety issues that arise. For example, data regarding vehicle collisions has a clear nexus to vehicle safety and would be appropriate for NHTSA to collect. However, data regarding automated driving system disengagements (that do not result in collisions) relate more to the technical operation of a vehicle and would thus not be appropriate to share. To provide industry with further assurances about participating in a pilot program, NHTSA should consider granting some form of enforcement or liability relief with respect to research data that is shared voluntarily.

As discussed in our answer to Question 10, NHTSA should also refrain from gathering any personally identifiable information of individuals to address privacy concerns, and ensure that any proprietary data collected through a pilot program remains confidential.

As we have noted in other contexts, even anonymized or "de-identified" data can constitute proprietary and competitive information. This is particularly true of data generated through the research and development process, which can indicate the direction of new discoveries and current and future investments. Overbroad data sharing requirements could enable less innovative market participants to benefit in an anti-competitive manner from the data and the investments of others. This would distort incentives for developing and testing automated vehicles in the U.S., potentially putting U.S. industry at a disadvantage globally. This effect on U.S. competitiveness underscores why NHTSA should exercise caution in proposing any affirmative data sharing obligations in connection with a pilot program.

Question 10. In the design of a pilot program, how should NHTSA address the following issues—

a. confidential business information?

NHTSA must protect any proprietary business information collected as part of a pilot program from public disclosure—especially particularly sensitive data about technology capabilities and pilot program test results. Publishing such data would not further NHTSA's safety goals, as the data is not a direct indicator of safety, and it could be susceptible to misinterpretation or misuse in a way that undermines confidence in HAV technologies.

Any sensitive, proprietary or confidential information sought in connection with pilot program participation should not be publicly disclosed in response to a request for public disclosure before first providing the private entities to which it relates with adequate notice and opportunity to contest any third-party disclosure request.

b. privacy?

Protection of consumer data must also be a priority for a pilot program, particularly with respect to HAV operations that involve transportation of the general public. Industry participants have a responsibility to protect the privacy of the consumer data they collect, which NHTSA should support through the design of a pilot program. For example, driver's license numbers, contact and identification information, driver and criminal background history, and other personal information should be requested as sparingly as possible, in the interests of protecting individuals' privacy interests.

d. data retention and reporting?

Please see response to Question 9.

Question 11. In the design of a pilot program, what role should be played by—

b. The elements listed below,

iii. Third party evaluation?

Third party evaluation would be inappropriate for a pilot program focused on research and development. HAV developers know their systems best, and are thus best positioned to understand and evaluate their operation. By contrast, third party evaluators may not understand the nuances of each HAV system, are often not properly equipped to run appropriate tests, and may have misaligned incentives to perform more tests rather than a focus on technology development and improvement. Moreover, the added bureaucratic step of third party testing for experimental pilot vehicles will unnecessarily slow development of HAV technology. Avoiding third party evaluation mandates will bolster the overall flexibility and effectiveness of a pilot program to achieve the goals NHTSA has outlined.

vi. Consumer education?

Consumer education should be part of any pilot program, and is a broader obligation for government and industry as the commercialization of HAV technology progresses. CTA research shows that U.S. adults report a high degree of "pain points" when it comes to the current driving environment, but are concerned about technological errors with self-driving vehicles.[2] Further research and development may help address these concerns and build consumer trust. A pilot program would advance these efforts, as well as support regulatory changes that allow testing and improvement in self-driving technology. Further research into consumer sentiments surrounding HAVs will inform efforts to increase public trust and confidence in the technology.

[2] CONSUMER TECHNOLOGY ASSOCIATION, SELF-DRIVING VEHICLES: CONSUMER SENTIMENTS 2018 at 17 (OCT. 2018), *available at* https://www.cta.tech/Research-Standards/Reports-Studies/Studies/2018/Self-Driving-Vehicles-Consumer-Sentiments-2018.aspx.

Question 13. Which of the following matters should NHTSA consider requiring parties that wish to participate in the pilot program to address in their applications?

e. Reporting of data, e.g., reporting of crashes/incidents to NHTSA within 24 hours of their occurrence.

To the extent possible, NHTSA should adopt data reporting standards that are consistent with existing timelines to streamline and simplify compliance.

g. Adherence to recognized practices for standardizing the gathering and reporting of certain types of data in order to make possible the combining of data from different sources and the making of statistically stronger findings.

Industry participants are implementing a variety of approaches to gathering and reporting HAV data. It is too early to say whether there are any "recognized practices" that reflect the consensus of the industry. Moreover, standardization at this early stage of the industry's development would be premature. To avoid favoring one approach over another, NHTSA should offer flexibility for pilot program participants to gather and report data in the way that makes sense for the individual technologies and operations.

Question 19. How could the exemption process in section 30113 be used to facilitate a pilot program? For vehicles with high and full driving automation that lack means of manual control, how should NHTSA consider their participation, including their continued participation, in the pilot program in determining whether a vehicle would meet the statutory criteria for an exemption under section 30113?

The exemption process under section 30113 could facilitate deployment of HAVs with non-conventional designs pending future FMVSS rulemaking. NHTSA should preserve the ability to use this exemption authority for HAV contexts outside of a pilot program, and should apply a consistent analytical approach to evaluating the statutory criteria in both contexts; in other words, the bar for demonstrating an equivalent level of safety should not be lower or higher for pilot program participants.

Consistent with our comments on Question 4, we also urge NHTSA to consider ways to use its exemption authority to enable HAV research and development by any type of company developing automated driving system technologies—as part of a pilot program and more generally. This is important to facilitate HAV deployment by the many non-traditional players that are pursuing innovations in this area and to uphold the principle of technology neutrality.

c. The Agency requests comment on what role a pilot program could play in determining when to grant an exemption from the "make inoperative" prohibition under section 30122 for certain "dual mode" vehicles. Relatedly, what tools does NHTSA have to incentivize vehicles with high and full driving automation that have means of manual control and thus do not need an exemption to participate in the pilot program?

NHTSA's interpretation of the "make inoperative" provision is of significant interest to CTA's members. We support the agency's consideration of this issue as it relates to HAVs. A pilot program could yield information to support this evaluation. As a threshold matter, we encourage the agency to clarify the definition of the "dual mode" vehicles that could potentially be exempted from the make inoperative prohibition.

Question 20. What role could exemptions under section 30114 play in the pilot program? Could participation in the pilot program assist a manufacturer in qualifying for an exemption under section 30114? Could participation be considered part of the terms the Secretary determines are necessary to be granted an exemption under section 30114 for vehicles that are engaged in "research, investigations, demonstrations, training, competitive racing events, show, or display"?

We encourage NHTSA's consideration of whether section 30114 may provide a path to facilitate HAV research and other activities. The agency's evaluation of this pathway should not be confined to the context of a pilot program. By the same token, participation in a pilot program should not be required for a company to receive an exemption under section 30114.

Question 21. What role could a pilot program play in determining when to grant an exemption from the "make inoperative" prohibition under section 30122 for certain "dual mode" vehicles? Relatedly, what tools does NHTSA have to incentivize vehicles with high and full driving automation that have means of manual control and thus do not need an exemption to participate in the pilot program?

Please see response to Question 19(c).

Question 22. If there are any obstacles other than the FMVSS to the testing and development of vehicles with high and full driving automation, please explain what those are and what could be done to relieve or lessen their burdens. To the extent any tension exists between a Federal pilot program and State or local law, how can NHTSA better partner with State and local authorities to advance our common interests in the safe and effective testing and deployment of ADS technology?

Outdated provisions and inconsistencies in state and local law have the potential to create significant barriers to the testing and deployment of HAVs by complicating regulatory compliance. In our recent comments on AV 3.0, we endorsed the Department's efforts to encourage states to review and modify their laws and regulations to create a more uniform national policy framework for HAVs. NHTSA should emphasize clarity and consistency in the roles of each level of government with respect to HAV technology as part of any pilot program—particularly with regard to the distinct regulatory responsibilities of the federal and state governments.

* * *

Thank you for the opportunity to provide these comments. Please do not hesitate to contact us with any questions you may have.

Sincerely,

/s/ Gary Shapiro
Gary Shapiro
President and CEO
Consumer Technology Association
1919 S Eads St
Arlington, VA 22206

/s/ Jamie Boone
Jamie Boone
Senior Director, Government Affairs
Consumer Technology Association
1919 S Eads St
Arlington, VA 22206

/s/ Pamela Garvie
/s/ Peter Nelson
Pamela Garvie
Peter Nelson
K&L Gates LLP
1601 K Street N.W.
Washington, DC 20006

Counsel for Consumer Technology Association