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Comment On: NSF-2025-OGC-0001-0001
Request for Information: Development of a 2025 National Artificial Intelligence Research and Development Strategic Plan

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Comment on FR Doc # 2025-07332

Submitter Information

Organization: Autonomous Vehicle Industry Association

General Comment

See the attached file for comments from the Autonomous Vehicle Industry Association (AVIA).

Attachments

AVIA Comments on NSF-OSTP RFI on the Development of a 2025 National AI Research and Development Strategic Plan (NSF 2025 OGC 0001)



May 28, 2025

Suzanne H. Plimpton,
Reports Clearance Officer,
National Science Foundation
2415 Eisenhower Avenue,
Alexandria, VA 22314

Re: Request for Information on the Development of a 2025 National Artificial Intelligence (AI) Research and Development (R&D) Strategic Plan (NSF-OGC-0001)

Dear Ms. Plimpton,

The Autonomous Vehicle Industry Association (“AVIA”) writes in response to the National Science Foundation (“NSF”) Networking and Information Technology Research and Development National Coordination Office’s Request for Information (“RFI”) on the “Development of a 2025 National Artificial Intelligence (AI) Research and Development (R&D) Strategic Plan,” which was submitted on behalf of the Office of Science and Technology Policy (“OSTP”).¹ As an organization focused on the development and deployment of autonomous vehicles (“AVs”), AVIA encourages the administration to include considerations for AVs as it updates the National AI R&D Strategic Plan.² AVs represent a key AI-enabled technology and an industry in which the U.S. continues to lead the world. Maintaining and growing U.S. leadership in AVs will depend on the creation of a federal policy framework that will help support further research and development on AV technologies while accelerating the safe deployment of the technology across the country.

As an organization, AVIA is committed to bringing the tremendous safety and mobility benefits of AVs—otherwise known as SAE Levels 4- and 5-capable vehicles—to consumers in a safe, responsible, and expeditious manner. AVIA’s membership is comprised of the world’s leading technology, automotive, ridesharing, trucking, and transportation companies.³ Vehicles operated by AVIA members have driven more than 145 million autonomous miles on U.S. public roads, a distance roughly equivalent to the average distance between Earth and Mars, or driving around the

¹ Request for Information on the Development of a 2025 National Artificial Intelligence (AI) Research and Development (R&D) Strategic Plan, 90 Fed. Reg. 17835 (Apr. 29, 2025). This document is approved for public dissemination. The document contains no business-proprietary or confidential information. Document contents may be reused by the government in developing the AI Action Plan and associated documents without attribution.

² AVIA provided similar comments to the docket of OSTP and NSF’s earlier RFI on the AI Action Plan. *See* Autonomous Vehicle Indus. Ass’n, Comment Letter on Request for Information on the Development of an Artificial Intelligence (AI) Action Plan (Mar. 13, 2025).

³ Our members include Aurora, Bot Auto, Cavnue, Cruise, Discount Tire, Ford, Gatik, International, J.D. Power, Kodiak, Lyft, Motional, NGV, Nuro, Plus, Stack, Tier IV, Torc Robotics, Uber, UPS, Volkswagen Group of America, Volvo Cars, Volvo Autonomous Solutions, Waabi, Waymo, and Zoox. *See Our Mission and Members*, AUTONOMOUS VEHICLE INDUS. ASS’N, <https://theavindustry.org/> (last visited May 28, 2025).



Earth 5,600 times.⁴ AVs will play a pivotal role in addressing critical challenges facing our nation, including reducing the persistent and unacceptable level of traffic fatalities in our country, expanding transportation access, enhancing supply chain efficiency, and expanding economic output.

The continued development and deployment of AVs in the United States will help revive our industrial capacity, create new manufacturing jobs, reduce supply chain costs, and ensure that the United States retains its international leadership and competitive advantage as this critical technology continues to grow and evolve. To fully realize these benefits, a supportive and uniform nationwide federal policy framework is essential. With this in mind, AVIA recently released *Securing American Leadership in Autonomous Vehicles*,⁵ a comprehensive set of federal policy recommendations that would accelerate the safe and timely deployment of AV technology and solidify the U.S. as the global leader in this transformational field. In the last several years, U.S. states have raced ahead on AV policy, and today 26 states have AV deployment statutes. While AVIA appreciates this interest by states, it is essential for the U.S. Department of Transportation (“USDOT”) to set nationally applicable design, construction, and performance standards for AVs, which is an authority it—and it alone—possesses. A federal framework for AVs is also vital to help maintain U.S. leadership in AV technology, as legal frameworks for AVs are already in place in China, the European Union, Germany, the United Kingdom, and elsewhere, giving foreign AV developers a level of regulatory certainty that can give them a competitive advantage over U.S. companies.

AVIA envisions a federal framework for AV safety that focuses on several key areas, including:

- **AV Safety, Transparency, and Accountability**

Actions that can be taken to promote AV safety, transparency, and accountability include undertaking a new rulemaking by the National Highway Traffic Safety Administration (“NHTSA”) to create new Federal Motor Vehicle Safety Standards (“FMVSS”) that apply to autonomous driving systems (“ADS”). These FMVSS should include behavioral competency tests to allow ADS manufacturers to self-certify their systems to demonstrate a basic level of ADS proficiency appropriate for the ADS’s operational design domain (“ODD”), and a requirement that ADS manufacturers develop a detailed “safety case” for their ADS. NHTSA should additionally move to modernize existing FMVSS to clarify that requirements for manual controls and certain indicators and telltales do not apply to Level 4 or Level 5 ADS-dedicated vehicles. Finally, NHTSA should establish a National AV Safety Data Repository, which will include relevant safety data about AV incidents and be available to state regulators, with appropriate protections for

⁴ AUTONOMOUS VEHICLE INDUS. ASS’N, STATE OF AV 2025, (May 2026), <https://theavindustry.org/resources/2025-State-of-AV.pdf>.

⁵ AUTONOMOUS VEHICLE INDUS. ASS’N, SECURING AMERICAN LEADERSHIP IN AUTONOMOUS VEHICLES (2025), <https://theavindustry.org/resources/Securing%20American%20Leadership%20in%20Autonomous%20Vehicles.pdf>.



confidential business information. Such actions would provide additional regulatory certainty for AV developers, allowing them to innovate further and help grow the domestic AV industry.

- **Supporting Supply Chain Resiliency Through AV Trucking**

Autonomous trucking can ease supply chain burdens while supporting trucking jobs and increasing roadway safety. The Federal Motor Carrier Safety Administration (“FMCSA”) can support autonomous trucking by codifying the agency’s 2018 interpretation that the Federal Motor Carrier Safety Regulations do not require a human driver to operate or be present in a commercial motor vehicle (“CMV”) being operated by a Level 4 or Level 5 ADS. The agency should also update existing hours of service and inspection requirements that currently require action by a human driver, and, in partnership with industry and law enforcement, build on and support the existing consensus approach to autonomous truck inspection protocols.

Additionally, FMCSA should reverse its December 2024 decision to deny the autonomous trucking industry’s petition on the use of alternative warning devices and grant the industry the requested exemption to use new emergency warning device solutions that utilize cab-mounted beacons instead of driver placed devices. The petition is especially important as it presents a new safety technology that could be applied not only to AVs, but traditional CMVs, improving roadway safety for all users.

- **Promoting U.S. AV Leadership**

The National AI R&D Strategic Plan should also include considerations for providing federal support for growing the domestic supply chain for AI-enabled technologies, including AVs. At present the AV industry’s supply chain is diverse, relying on suppliers from across the globe. When sourcing equipment, AV developers must balance technical demands, performance requirements, costs, and production and deployment timelines. At times, domestic AV developers are required to source parts from abroad when no domestic vendor can provide components that meet performance requirements and commercially viable prices. To counteract this, federal support and funding can be leveraged to build out a larger domestic supply chain for AVs by creating opportunities for domestic suppliers to step into the market.

The administration, in partnership with Congress and industry, should create a pilot program to incentivize the domestic production of sensors through a grant program or other mechanism. At the same time, the USDOT should be tasked with convening relevant stakeholders to discuss needed actions for domestic manufacturing of AV hardware. These activities should be informed by learnings from the Headwaters Tech Hub in Montana, which is focused on photonics. Initiatives like the Headwaters Tech Hub will help develop domestic supply chains while providing valuable education and employment opportunities for communities across the country.⁶ Creating and

⁶ See HEADWATERS TECH HUB, <https://headwaterstechhub.com/> (last visited May 28, 2025).



funding additional opportunities to solidify U.S. leadership on AV supply chains should be an integral part of the federal government's AI efforts, including the National AI R&D Strategic Plan. AVIA lays out these actions and others in greater detail in *Securing American Leadership in Autonomous Vehicles*, including actions that Congress can take to support AV innovation through comprehensive AV legislation. AVIA encourages OSTP to take these ideas and the needs of the AV industry into account as it continues to develop the National AI R&D Strategic Plan. Federal action is needed to help unlock the full potential of AVs and ensure that the United States remains the world leader in AV technology.

AVIA is grateful for the opportunity to provide these comments and welcomes the opportunity to engage further with OSTP and NSF on this and other matters. If there is anything further we can do to assist you or your staff, please do not hesitate to reach out.

Sincerely,

Jeff Farrah
Chief Executive Officer
Autonomous Vehicle Industry Association