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U.S. Department of Transportation

Washington, D.C. 20590

Re: National Freight Strategic Plan 2025 Update: Request for Information [U.S. Department of Transportation - [Docket No. DOT-OST-2025-0369](#)]

Executive Summary:

The Intelligent Transportation Society of America (ITS America) is grateful for the opportunity to respond to the U.S. Department of Transportation's (Department) Request for Information on a National Freight Strategic Plan 2025 Update. The National Freight Strategic Plan (Plan or NFSP) is a vital tool to help shape national, state, and regional freight priorities, and this update to the Plan presents an important opportunity to embrace innovative technologies that help strengthen the movement of multimodal freight across the United States.

For more than 30 years, ITS America has been the nation's leading voice on intelligent transportation, uniting cross-sector leaders to shape forward-thinking policy, guide smart investments, and accelerate the deployment of emerging technologies. Through convening, education, and advocacy, we advance transportation solutions that save lives, modernize roads, reduce congestion, and strengthen America's global competitiveness. We work with leaders across sectors to realize the technologies and policies that improve how people and goods move and make our infrastructure safer and more efficient.

Our recommendations to the 2025 Plan emphasize the need to embrace an innovation-centric approach to improving the safety, efficiency, and reliability of our national freight system, while investing in and prioritizing standardized, interoperable, and complementary technology tools for public agencies across the country.

ITS America respectfully submits the following answers to questions in the Request for Information:

1. The 2020 NFSP outlined three overarching goals and accompanying strategies to guide national freight policy:

- **Improve the Safety, Security, and Resilience of the national freight system;**
- **Modernize Infrastructure and operations to grow the economy, to increase competitiveness, and to improve quality of life; and**
- **Support the Development of Data, Technology, and Workforce Capabilities that improve freight system performance.**

The three overarching goals from the 2020 NFSP still accurately reflect, in a broad sense, the most urgent priorities for the United States freight system.

The 2025 Plan should continue to focus on improving the safety, security, and resilience of the national freight system. The Plan should reflect advances in intelligent transportation systems and associated technologies that improve safety on the road and resilience of the freight system from natural disasters, infrastructure challenges, hazardous weather, and global supply chain disruptions. The continued growth of automated trucking (automated vehicles, or AVs) applications will continue to aid in improving road safety and lowering crash risks by reducing crashes caused by human error. For example, an automated driving system (ADS) equipped

truck cannot drive drowsy, a frequent challenge for long haul truck drivers in the U.S. The 2025 Plan should address the safe and secure integration of AV freight into the national freight system.

The 2025 Plan should continue its focus on the goal of modernizing infrastructure and operations to improve quality of life, increase competitiveness, and grow the United States' economy. The freight industry, and transportation industry writ large, is experiencing advances in automation, artificial intelligence (AI), and other digital infrastructure tools that help modernize and transform operations. Predictive analytics, Vehicle-to-Everything (V2X) technologies, and connected freight corridors are already improving freight operations across the country. The 2025 Plan goals should recognize these new and emerging technologies as critical tools to modernize our infrastructure and promote safe and secure freight travel.

The 2025 Plan should maintain its focus on developing data, technology, and workforce capabilities that improve freight system performance. The 2025 Plan should address the need to incorporate ADS-equipped freight operations, vehicle connectivity, platooning, and other vehicle technologies into the broader multimodal freight ecosystem to improve performance, efficiency, and overall road safety. Beyond specific technologies, the 2025 Plan needs to include strong consideration of how to improve cross-jurisdictional and intermodal data sharing. Interoperable data sharing is key to improving intermodal freight connectivity, reliability, and efficiency.

2. What changes would make the 2025 NFSP more impactful or useful in guiding future freight-related actions?

The 2020 Plan has served as a foundational guidepost for advancing freight mobility across the United States, shaping infrastructure investments, data modernization efforts, and collaborative partnerships. The 2025 Plan must continue to be that guidepost and should be grounded in the most pressing needs of the entire multimodal freight network. The way we move goods across the country and around the world has significantly changed in the past five years, and the 2025 Plan must address the technological changes and opportunities for the freight sector. Our system is no longer just comprised of concrete, steel, long-haul human driven semi-trucks, or traditional cargo airplanes – driverless trucks, drones, data platforms, AI-powered analytics, and more are all shaping freight movement today.

The 2025 Plan would benefit from even greater discussion of how freight in the United States can and should be integrating ITS and advanced technologies to improve freight digital infrastructure. The 2025 Plan should recognize the advances in weigh-in-motion technology, AI, automation, V2X communications, and real-time data sharing, while demonstrating each of these technologies' ability to positively impact freight movement. By reinforcing the importance of these technologies and our national transportation digital infrastructure, the NFSP can further position itself as a forward-leaning, innovation-driven framework, one that builds on demonstrated successes while equipping U.S. freight systems to meet the challenges and opportunities of the decade ahead.

5. What emerging operational or technological advances are likely to reshape freight movement over the next five years? What actions should public agencies take to enable or accelerate their adoption? How can DOT support greater private-sector investment, and what investment roles are best suited for public vs. private actors?

The following list represents a few examples of technological innovations that the 2025 Plan should highlight and encourage the private sector to develop further and the public sector to actively deploy at scale.

- Data Sharing for Truck Parking Applications: As the need for truck parking increases across the U.S. and freight volumes are only expected to rise in the next few decades, the 2025 NFSP should lead with innovative solutions to help ease truck parking shortages and provide more tools to drivers. Transportation agencies today can invest in technologies that help provide truck drivers with more real-time data on truck parking availability, giving drivers tools at their fingertips to map better routes, adapt in real-time, and plan for a safer journey. Cameras, radar, sensors, V2X, and other tools can help collect and process parking availability, disseminating it to drivers through dynamic message signs, smartphone apps, and in-cab systems. The 2025 Plan should encourage the deployment of these innovative technologies and data sharing capabilities to enhance truck parking availability and safety.
- Vehicle-to-Infrastructure Communications: The freight industry continues to benefit from advancements in weigh station bypass, electronic tolling, and other vehicle-to-infrastructure (V2I/V2X) technologies. Weigh station bypass and preclearance tools can help save on transport time, fuel costs, and ultimately a smoother driving experience. Other V2X applications, including in-cab alerting, are also being used across the country to improve freight safety and efficiency. The 2025 Plan should highlight and explicitly support weigh station bypass technologies and V2I solutions that make freight travel more efficient and reliable across the nation.
- AI-Powered Predictive Fleet Maintenance: With machine learning capabilities, agencies and companies can now identify and predict vehicle and fleet maintenance with precision, improving not only vehicle performance but also maintenance operations and costs. Commercial motor vehicle operators and fleet owners can use AI-based applications, computer vision, and other innovative tools to predict wear-and-tear on vehicles. The 2025 Plan should address the opportunity provided by AI-powered vehicle maintenance applications to improve safety, lower costs, and extend the lifespan of commercial motor vehicles and all other freight modes.
- Autonomous Freight: Automation has reached the freight sector, with companies testing and operationalizing autonomous trucking operations big and small across corridors in Texas and other states. The autonomous trucking industry is poised to transform the way we move goods across the country, helping our freight industry move faster and smarter. ITS America supports the inclusion of heavy-duty trucking in a federal AV safety framework, and the 2025 NFSP should include automated freight applications as a core consideration for the national freight ecosystem in the United States. The updated plan should help guide the development and deployment of these AV freight operations and should include support for the technologies that will help safely integrate these trucks onto the road.

It is critical that the updated plan provides a roadmap for scaled deployment for such technologies described above, actively encouraging the use of these innovative tools by both the public and private sector in freight operations. Public sector agencies at all levels can encourage the adoption of these technologies through holistic, targeted investment, training and education, simplified procurement practices, and advanced planning.

The Department should look to foster technological innovations that are complementary to current private sector investments and state-wide deployments.

The Administration and Department are well-positioned to prioritize and invest in innovative transportation technologies. Through holistic technology investments, the Department can unlock the marketplace and allow innovations to flourish and come to market. The Department has an opportunity to signal, through this 2025 Plan and funding opportunities, that these technologies for freight are a priority and should be prioritized domestically within the United States.

6. What are the most significant regulatory, technological, procedural, institutional, or statutory barriers to freight system performance—especially at intermodal connectors and freight origin and destination points? How could the NFSP help identify or address these root causes?

ITS America has identified four key issues facing U.S. freight system performance: lack of dedicated funding for technology; fragmented data sharing; cybersecurity challenges; and the need to update Federal Motor Vehicle Safety Standards (FMVSS) and Federal Motor Carrier Safety Regulations (FMCSR) for ADS-equipped trucking applications. The 2025 Plan can help address these barriers by reacting to them and providing concrete solutions.

- Direct spending on transportation technology was one tenth of one percent (0.1%) of the total surface funds authorized in the Infrastructure Investment and Jobs Act (IIJA). The Department should encourage Congress to utilize the upcoming surface transportation reauthorization to increase the investment in transportation technology and ITS specifically so that the federal government can unlock private sector innovation and investment in technologies that will make our multimodal freight system safer, smarter, and more reliable. The 2025 Plan would benefit from emphasizing the need to strategically invest in technology and system modernization at scale so that our freight sector maintains global leadership and strong economic growth.
- Fragmented data sharing and digital infrastructure deployments are a technological and institutional barrier to improved freight system performance. Our current transportation system consists of small deployments and pilots of innovative technologies across the nation. These deployments have and continue to be critical for driving innovation and act as a baseline for the scalable deployment of new technologies. However, without federal leadership in this area, we are seeing fragmented deployments that lack interoperability across jurisdictions and modes – making data sharing more difficult. The 2025 Plan should identify data sharing issues as a challenge and look to address it through more sustained federal involvement in freight digital infrastructure and data sharing efforts.
- Cybersecurity remains a critical part of our national transportation system, including our digital infrastructure. Challenges persist across sectors, including freight, and should be addressed through technical resources, technological advancements, and stronger cross-sector communication and collaboration. The 2025 Plan should recognize the cybersecurity challenges facing the freight industry and should call for greater collaboration between stakeholders to address challenges and opportunities.
- Given the increasing importance of and deployment of autonomous freight applications, the lack of modernized FMVSS and FMCSRs for ADS-equipped trucks is a significant regulatory hurdle for modernizing freight transportation in the United States. The 2025 Plan should look to address regulatory barriers to AV freight innovation, including regulations relating to manual vehicle controls, the need for human drivers, and innovative warning beacons for commercial motor vehicles.

Thank you for the opportunity to provide thoughts and recommendations on the 2025 NFSP. Please reach out if you'd like to discuss any of these matters further.

Sincerely,

Bobby McCurdy

Vice President, Policy & Advocacy

Intelligent Transportation Society of America