

## National Dialogue on Highway Automation Readout Chicago, Illinois September 5-6, 2018

CHICAGO - The Federal Highway Administration (FHWA) held a "National Dialogue on Highway Automation" session in Chicago this week, the fourth in a series of national workshops. The session in Chicago was focused on automated technology and freight operations. Nearly 150 participants attended, including businesses that heavily rely on trucks for goods delivery and stakeholders involved in the design, construction, operation and maintenance of U.S. roads



**FHWA Illinois Division Administrator, Catherine “Kay” Batey**, opened the session on Day One in Chicago. She welcomed the audience and introduced **Illinois Department of Transportation Deputy Secretary, Justine Sydello**, who provided an overview of state responsibilities, including coordination with federal, state and local public agencies.

Deputy Secretary Sydello outlined the State of Illinois connected and automated vehicle vision statement along with the role and activities of the state interagency working group.

These include creating a safe and innovation-friendly regulatory environment and engaging with external partners.

### State of Illinois CAV Vision

#### Vision Statement

“The State of Illinois will foster a safe, innovative environment for the seamless deployment of connected and automated vehicles (CAVs) and other transportation technologies.”

**FHWA Freight Analysis and Research Team Lead, Vince Mantero**, provided an overview of the levels of automation from 0 through 5: 0-no automation, 1-driver assistance, 2-partial automation, 3-conditional automation, 4-high automation, and 5-full automation. He summarized comments received in response to FHWA’s Request for Information on Integration of Automated Driving Systems (ADS) into the Highway Transportation System earlier this year. These included greater uniformity and quality in road markings and traffic control devices, FHWA leadership in convening stakeholders to encourage collaboration and the sharing of data elements about the roadway environment.

Mantero stressed that automation has implication for roadways—in terms of physical and digital infrastructure, roadway operations and programs and practices. He concluded his presentation by highlighting the opportunities to improve freight movement and put forth discussion topics for the group to explore during the two-day workshop.

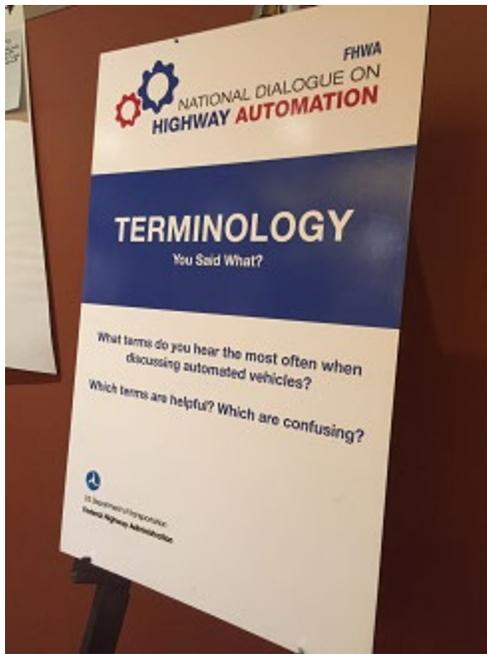
# Opportunity Areas for Freight

Truck Platooning	Long-Haul	Driver Comfort	Urban Freight Delivery	Drayage and Intermodal
				
<ul style="list-style-type: none"><li>• Increased efficiency</li><li>• Reduced fuel consumption</li></ul>	<ul style="list-style-type: none"><li>• Early deployment opportunity?</li><li>• Improve safety</li><li>• Minimize driver fatigue</li></ul>	<ul style="list-style-type: none"><li>• Increase driver retention</li><li>• Address driver shortage</li></ul>	<ul style="list-style-type: none"><li>• Last-mile of delivery</li><li>• Efficiency gains/cost improvements</li><li>• Sidewalk robots?</li></ul>	<ul style="list-style-type: none"><li>• Automate container movements</li><li>• Rail intermodal connections</li></ul>



The Small Group Session explored several questions related to automation and freight operations, including the biggest challenges and opportunities, considerations for roadway design, impacts on bridges, routing and truck size and weight. The common themes that emerged from the discussion included data security and interoperability and the operation of mixed traffic that includes a combination of manually driven and automated vehicles and potentially truck platoons.





In the afternoon Collaboration Corner, the participants rotated around to various stations to give their input on topics related to the future of freight (operational environments and use cases), traffic operations (opportunities and challenges), infrastructure (design considerations and impacts), connectivity (enhancing information exchange and cooperation), terminology (developing a lexicon around highways operations) and research needs (collecting research needs statements). Additional comments and questions that were outside these topic areas were posted at the “parking lot” station.



FHWA Team Leader for Transportation Planning and Capacity Building, **James Garland**, facilitated the “Parking Lot” station for the Collaboration Corner session



**FHWA Office of Freight Management and Operations Director, Caitlin Hughes**, kicked off Day Two of the workshop by setting the stage for action to advance State, local and federal consideration of freight implications of automated vehicles. The themes included the impacts on physical infrastructure and issues related to a mixed fleet of vehicles on highways and in urban areas, including trucks of different sizes and types and levels of automation. Emphasis was given to communication and collaboration with a diverse group of stakeholders, identifying points of contact for AV issues among public and private stakeholders, and on more research. Participants felt that as the complexity of roadway operations increases with automated vehicles, the need will grow for accurate, real-time information; more sophisticated digital infrastructure systems and current route-mapping appropriate for commercial vehicle activity.



FHWA Office of Operations R&D Team Leader, **Gene McHale**, gives update on truck platooning.



Texas DOT Transportation Program Officer, Brian Barth, reports out.



On Day Two the participants tackled questions on congestion, especially in urban areas, the supply chain, deliveries and traffic patterns. An automated freight industry would have ramifications for these areas and could potentially change how goods are delivered in terms of volume, frequency and distance. The attendees exchanged ideas on urban congestion impacts, including last-mile deliveries, curb parking and non-peak hour deliveries. Questions were raised about the compatibility of automated trucks with a complete streets environment.



A panel discussion “**Preparing for Automated Vehicles: Freight Perspectives**” included Utah Department of Transportation’s Executive Director, Carlos Braceras; FedEx Corporation’s Vice President for Operations, Planning and Engineering, Nate Wells III; and Chicago Metropolitan Agency for Planning

Sr. Planner, Tom Murtha.

Executive Director Braceras thanked FHWA for organizing the National Dialogues on Highway Automation and highlighted that we were now at an “inflection point” with the incorporation of technology with transportation. There is significant change happening in how freight is being moved. He stressed the importance of flexibility for states to accommodate the most efficient movement of goods. In the end, transportation and automation can lead to saving lives and making lives better. Vice President Wells highlighted that FedEx was looking at opportunities in how to use data and smart systems and how to use automation in unique ways. He said he was pleased to see that FHWA was focusing on safety and that he was excited about the future of innovation in the next five to 10 years. Tom Murtha emphasized that we were undergoing a time

of profound change—especially when we consider our aging infrastructure system. He spoke about a vision for a future system that includes capital investment, safety and security of freight and travel-time reliability, along with the goal of maximizing throughput. Throughout the panel discussion, safety and communication were stressed.

**The participants ended the National Dialogue in Chicago with a recap of the discussion, recommendations and next steps.**



FHWA Office of Operations Program Manager, **John Corbin**, facilitates session.



Indiana DOT Economic Development and Special Initiatives Director, Pamela Fisher, reports out.



Illinois DOT Office of Planning and Programming Director, Erin Aleman, reports out.