Deploying Truck Automation on the Interstate

The I-70 Truck Automation Corridor is a 166-mile stretch of Interstate 70, between Columbus and Indianapolis. Three levels of technology will be deployed: truck platooning, Society of Automotive Engineers (SAE) Level 2 automation and SAE Level 4 automation. There will be a professional driver at the wheel at all times. The Corridor will advance the adoption of truck automation technologies in the logistics industry by integrating these technologies into truck fleets’ daily “revenue service” operations to deliver products across Ohio and Indiana.

Auditing Freeways’ Automation Readiness

Before deploying the automation technologies, a roadway audit of I-70 will assess its automation readiness, provide recommendations on changes for infrastructure owners-operators (IOOs) and develop an open-source software tool that assesses the road’s automated vehicle (AV) readiness. It can be replicated by IOOs and departments of transportation and/or toll roads around the country.

Sharing Results to Scale Automation

Audit and automation deployment results will be shared with the U.S. Department of Transportation (USDOT) to develop policies and procedures to scale truck automation across the United States, and design standards for AV-ready freeways.

AV Readiness Guidebook

An AV Readiness Guidebook will be created. The guidebook will provide a combination of findings and lessons learned from the roadway audit. Guidebook content will include type, position and configuration of sensors, data collection procedures, and data analysis tools and results.

Project Details

The four-year, $8.8 million project is a collaboration between the Ohio Department of Transportation, DriveOhio, the Indiana Department of Transportation and the Transportation Research Center.

The deployment’s outcomes...

Safety
by improving trucks’ crash avoidance capabilities and reducing driver stress

Environment
by reducing fuel consumption and emissions output

Efficiency
by increasing labor productivity and earning a positive return on investment (ROI)

Acceptance
by increasing fleets’ acceptance of the technology

Contact us to learn more: I70TAC@drive.ohio.gov or visit drive.ohio.gov/70TruckAutomation
Why are DriveOhio, ODOT and INDOT deploying automated trucks on Interstate 70?

What may seem futuristic is in fact a reality. Automated vehicles are here with many developers and partnerships now actively marketing and deploying these technologies with fleet partners.

Automated commercial vehicles are already traveling millions of miles a year, under the supervision of drivers, primarily in the southwest United States. The current use case is exit-to-exit, or “middle mile,” interstate trips where the weather is warm and predictable.

Automation and weather impacts. The sunny, the wet and the snowy.

There is less research analyzing what automated vehicles may encounter and how they will react in less than ideal road conditions, such as traveling in adverse and winter weather conditions. Ohio and Indiana, which celebrate all four seasons of changing weather, are good representatives of any weather that could occur elsewhere in the United States from the Northwest to the Midwest to the East Coast.

The goal is to evaluate how the technologies operate under these variable conditions and their impacts on truck fleets using the technologies.

Join Us — Help Shape the Industry of Tomorrow by Using New Technologies Today

Fleets that use all or part of I-70 between Columbus and Indianapolis have a unique opportunity to work with technology developers and the public sector to deploy platooning, Level 2 and Level 4 automation technology.

Fleets will have the opportunity to potentially improve their efficiency and drivers’ experiences.

Fleets will have an early opportunity to “test drive” the technology firsthand and evaluate it with their firm’s own operational metrics to understand how automated trucking will impact their drivers and the company overall.

Benefits of Truck Automation Deployments on I-70

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<th>Activity: Adopting Truck Automation</th>
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<td>Provide trucking firms real-world experience with automation technologies and supporting data.</td>
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<th>Activity: Sharing Information</th>
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<td>Share key takeaways, field experiences, best practices and lessons learned.</td>
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<th>Activity: Interstate System Automation Audit</th>
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<td>Conduct a road automation readiness audit and make roadway repair recommendations and improvements.</td>
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<th>Activity: Breaking Down Institutional Barriers</th>
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<td>Discover and address safety regulations, vehicle operating rules and roadway operating practice issues in a multi-state environment. Document the issues and develop standard operating practices to share with other state DOTs.</td>
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