

WHAT IS AN INNOVATIVE CORRIDOR?

An Innovative Corridor is a transportation route that aims to enhance the safety, mobility, reliability, and resiliency of road users through the use of emerging technology. The corridor accelerates the adoption of cooperative and automated transportation to support current road users in addition to connected and automated vehicles.

I-45 CORRIDOR OVERVIEW



More than **10 million individuals** reside near I-45.



Carries **50% of Texas' truck freight**.



Hosts **85,000+ freight businesses**.



Moves **53 million tons** of freight, valued at **\$95 billion** annually.



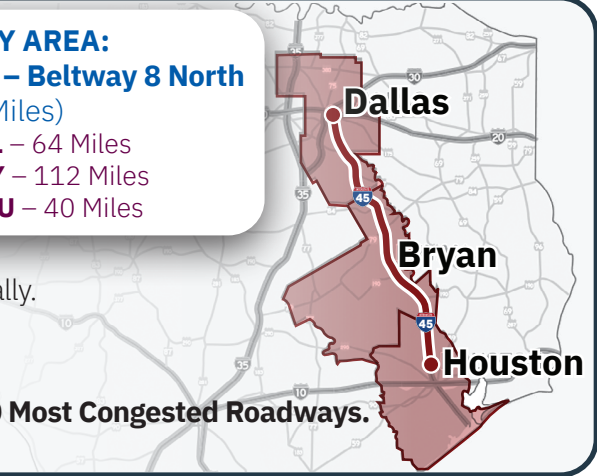
In 2023, **50 fatalities** were reported along the I-45 corridor.



Two segments in Houston district are listed in the **Texas 100 Most Congested Roadways**.

STUDY AREA:
IH-20 – Beltway 8 North
(216 Miles)

- **DAL** – 64 Miles
- **BRY** – 112 Miles
- **HOU** – 40 Miles



I-45 INNOVATIVE CORRIDOR

The I-45 Innovative Corridor serves as a **platform to demonstrate and evaluate solutions** identified in the **Cooperative and Automated Transportation (CAT) program**. It uses strategic alliance across the multiple TxDOT districts and aims to build upon proven **advanced technologies** and other innovation initiatives from Texas, other states, and countries around the world. Additionally, this corridor serves as a **pioneering testbed for pilot technology deployments** that will provide a framework for statewide corridor deployments. For more information on the CAT program, please refer to the [CAT Strategic Plan](#).

The corridor explores how emerging technology can support Work Zone Management, Traffic Incident Management and Preventative Infrastructure for both short-term and long-term solutions. The corridor focuses on the following technology applications:



Work Zone Management:

Emerging technologies such as connected work zones can reduce potential crashes for

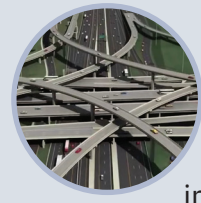
road users, provide a safer environment for workers, and disseminate work zone information to third party vendors. For example, Devices such as bluetooth enabled tags, beacons, and smart cones contribute data to allow detection and verification of work zones and worker presence.



Traffic Incident Management (TIM):

Enhance safety and mobility around traffic incidents

using tools to anticipate traffic events which allows proactive deployment of incident response plans, reducing response time, subsequent incidents, and overall impact on congestion.

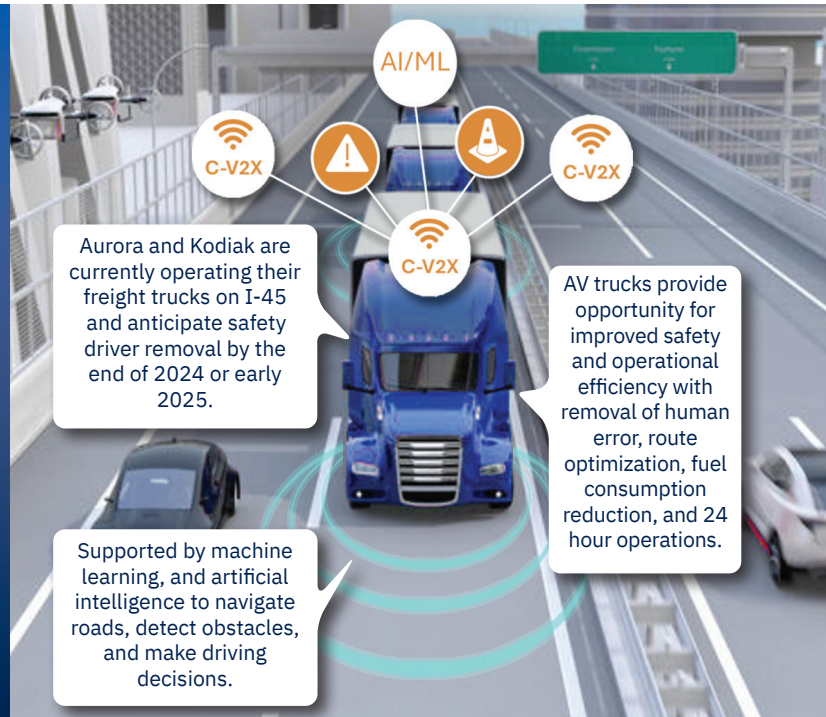
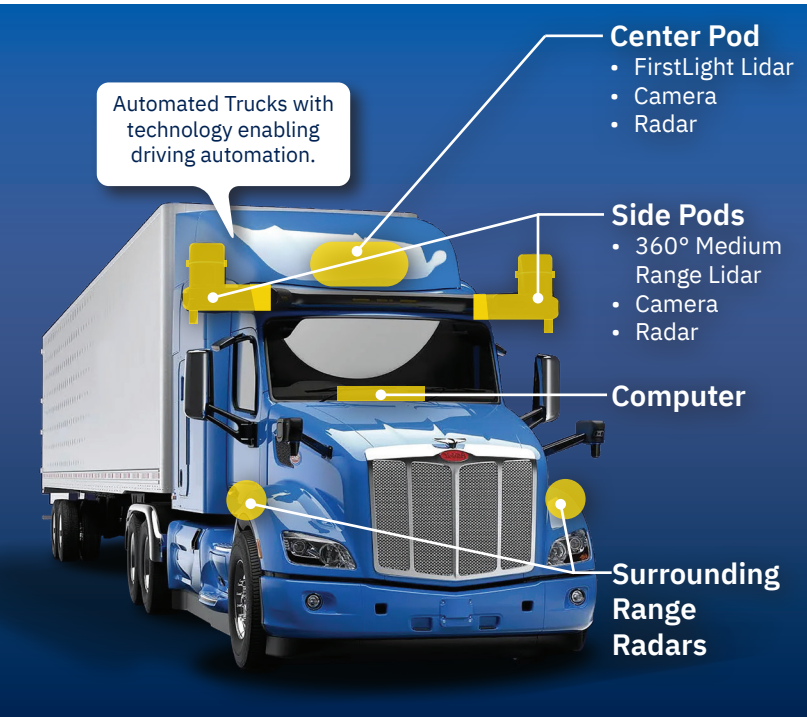


Preventative Infrastructure:

Physical and digital infrastructure implemented to

proactively anticipate, mitigate, or prevent potential crashes and congestion events. Sensors and communication technology can be used to monitor traffic and provide real-time alerts to drivers to provide reliability and resiliency to the network.

AUTOMATED VEHICLES FREIGHT COMPANIES OPERATING ALONG THIS CORRIDOR



WHY SHOULD YOUR DISTRICT BE ENGAGED?

- Identify current and future district needs and challenges as they relate to emerging technology and innovation from the CAT Program.
- Identify emerging technologies that can help support and supplement existing TSMO practices.
- Share current and planned ITS and emerging technology maintenance and infrastructure needs.
- Opportunity to develop strategies for public awareness and acceptance of ITS and emerging technology.
- Opportunities to learn from deployment of emerging technologies.

WHY SHOULD YOUR DIVISION BE ENGAGED?

- Identify current and future division needs and challenges as they relate to emerging technology and innovation from the CAT Program.
- Identify planned ITS or emerging technology initiatives that your division is leading or supporting.
- Understand statewide strategies for the implementation or adoption of ITS in which your division is involved that future emerging technology and innovation from the CAT Program could support.
- Opportunity to deploy and evaluate emerging technology that are on the division's roadmap to test pilot.