

F. Transportation Technology and Innovation

Policies

MTP Reference #	Transportation Technology and Innovation
TT3-002	The region will develop and implement data sharing best practices that are project- and outcome-focused, serve the public interest, and comply with privacy and cybersecurity requirements, without infringing upon private sector proprietary information requirements.
TT3-006	The region will support automated vehicle and related transportation technology deployments that advance the goals of the Mobility 2045 Update by fostering public-private partnerships among local transportation authorities, technology developers, and commercial/industrial hubs.
TT3-007	The region will support consistent and high-quality maintenance and operations of its transportation system, including utilization of new technologies which offer a cost-efficient method of linking asset management to data collection.
TT3-010	The region will pursue its goal of becoming a “Region of Choice” by exploring emerging mobility technologies, which offer new modes of transportation and those which enhance existing modes of transportation.
TT3-011	New transportation technologies must be deployed in a manner consistent with Mobility 2045 Update goals of providing the public with a transportation system that is equitable, protects the safety of all users, offers the public more travel options, is well maintained and operated, is environmentally responsible, and prepares the region for innovations in transportation and mobility infrastructure that will accelerate its future economic development.
TT3-012	The region will prepare for future innovations in both transportation and infrastructure by developing analytical tools capable of assessing traditional transportation projects against alternatives such as new mobility technologies, C-V2X (connected vehicle-to-everything) innovations, more effective use of existing assets, and demand management tools.
TT3-013	The region will work with educational institutions at all levels to develop workforce training solutions to prepare area residents for job opportunities in the emerging transportation technologies sector, to pursue funding opportunities, and to support deployments of automated vehicles and other emerging transportation technologies.
TT3-014	The region will prioritize the safety of all transportation system users in and through the deployment of emerging modes of transportation such as e-scooters, e-bikes, automated vehicles, and delivery robots through the use of strategic technology, design, and policy solutions.

Programs

AV2.0	
Reference	TT2-006
Background	The Transportation Technology Innovation Program follows in the footsteps of previous work and shares the DNA of preparing for the future of transportation by improving conditions for drivers and transit users today. The initial period of the Transportation Technology Innovation Program's work is split into AV1.0 (Automated Vehicles 1.0) and AV2.0.
Related Goals	<ul style="list-style-type: none"> • Improve the availability of transportation options for people and goods. • Support travel efficiency measures and system enhancements targeted at congestion reduction and management. • Develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system.
Related Policies	TT3-002; TT3-006; TT3-011
Implementation	Automated vehicle deployments and infrastructure enhancements.
Performance Dimensions	To be developed.
Cost Estimate	\$37,500,000

Freight Optimization	
Reference	TT2-007
Background	The freight sector has emerged as a key automated vehicles sector and North Central Texas is a center of development. A number of firms that have automated long-distance freight transportation have operations hubs in the region.
Related Goals	<ul style="list-style-type: none"> • Encourage livable communities which support sustainability and economic vitality. • Ensure adequate maintenance and enhance the safety and reliability of the existing transportation system. • Develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system.
Related Policies	TT3-002; TT3-006; TT3-007
Implementation	Pilot initiative to use emerging Intelligent Transportation System technology to detect and prioritize truck movements at signalized intersections near freight hubs. Develop more responsive methods of coordinating truck and vehicle movements near freight centers.
Performance Dimensions	To be developed.
Cost Estimate	\$5,000,000

North Texas Center for Mobility Technologies (NTCMT)	
Reference	TT2-008
Background	The North Texas Center for Mobility Technologies brings coordinated expertise of Dallas-Fort Worth research universities to tackle mobility technology challenges across Texas, nationally, and globally.
Related Goals	<ul style="list-style-type: none"> • Improve the availability of transportation options for people and goods. • Encourage livable communities which support sustainability and economic vitality. • Develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system.
Related Policies	TT3-007; TT3-011
Implementation	Utilize multi-university partnerships and leverage match funding to further the development of regional mobility solutions.
Performance Dimensions	To be developed.
Cost Estimate	\$2,500,000

CV Data for Operations	
Reference	TT2-009
Background	An entire ecosystem of connected vehicle data technology is springing up as automated vehicles continue to develop. These data platforms extend far beyond automated vehicle applications, however, to include open-source mapping, incident reporting, and vehicle/driving behavior. Asset management technologies can now use artificial intelligence and video-based platforms to monitor, catalogue, and assess pavement conditions and roadway furniture.
Related Goals	<ul style="list-style-type: none"> • Improve the availability of transportation options for people and goods. • Support travel efficiency measures and system enhancements targeted at congestion reduction and management. • Develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system.
Related Policies	TT3-002; TT3-007
Implementation	Get infrastructure data (e.g., road closures, crashes) to automated vehicles/connected vehicles to improve operations.
Performance Dimensions	To be developed.
Cost Estimate	\$35,000,000

Workforce Development	
Reference	TT2-010
Background	Vital to the successful implementation and safe deployment of new technologies is a well-prepared workforce. This ranges from top-tier research capabilities to high-skill mechanical and service trades which will be needed to support innovation and growth.
Related Goals	<ul style="list-style-type: none"> • Ensure all communities are provided access to the regional transportation system and planning process. • Encourage livable communities which support sustainability and economic vitality.
Related Policies	TT3-013
Implementation	Invest in next generation transportation workforce development to build Dallas-Fort Worth tech talent base in transportation. Expand broadband access/usage across Dallas-Fort Worth—necessary to make connected vehicle-to-everything available to all and promote telecommuting and other virtual connections—and building next-gen transportation workforce via “agile curricula.” Work with educational institutions at all levels to develop workforce training solutions to prepare area residents for job opportunities in the emerging transportation technologies sector, to pursue funding opportunities, and to support deployments of automated vehicles and other emerging transportation technologies.
Performance Dimensions	To be developed.
Cost Estimate	\$30,000,000

Emerging Transportation Technology Deployments	
Reference	TT2-011
Background	Continuation of AV2.2/2.3 but encompassing wider range of vehicle types.
Related Goals	<ul style="list-style-type: none"> • Improve the availability of transportation options for people and goods. • Support travel efficiency measures and system enhancements targeted at congestion reduction and management. • Develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system.
Related Policies	TT3-002; TT3-006; TT3-007; TT3-011; TT3-012
Implementation	Deploy pilot projects for a range of emerging technologies to demonstrate their use, effectiveness, and potential.
Performance Dimensions	<ul style="list-style-type: none"> • Miles traveled • Persons served • User acceptance • Safety
Cost Estimate	\$100,000,000

Innovation Grants for Local Partners	
Reference	TT2-012
Background	The Transportation Technology Innovation Program follows in the footsteps of previous work and shares the DNA of preparing for the future of transportation by improving conditions for drivers and transit users, today.
Related Goals	<ul style="list-style-type: none"> • Improve the availability of transportation options for people and goods. • Support travel efficiency measures and system enhancements targeted at congestion reduction and management. • Ensure all communities are provided access to the regional transportation system and planning process. • Encourage livable communities which support sustainability and economic vitality. • Develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system.
Related Policies	TT3-002; TT3-006; TT3-007; TT3-010; TT3-014
Implementation	Competitive grant program for transportation-related innovative projects.
Performance Dimensions	To be developed.
Cost Estimate	\$80,000,000