



TRANSPORTATION
CABINET



THE VISION

STRATEGIC PLAN ► 2023

The TSMO VISION

As Transportation practitioners, We often hear that we can't continue to build our way out of roadway congestion. In its simplest form, Transportation Systems Management and Operations, or TSMO, is this thought evolution in practice. As the needs of our customers and how they use our roadways evolve, the transportation industry must also adapt to meet those needs. TSMO aligns with the Transportation Cabinet's Vision of "Striving to be national leaders in transportation who provide transportation infrastructure and services for the 21st century that deliver new economic opportunities for all Kentuckians."

TSMO encompasses a broad set of strategies that aim to optimize the safe, efficient, and reliable use of existing and planned transportation infrastructure for all modes. It is a toolbox used to get the most out of the investments KYTC has already made and will make in the future. The TSMO program aims to improve the performance of the highway and street transportation system through the implementation of systems, services, and projects. TSMO includes all the things needed to maximize the benefits of ITS applications.

01

TSMO for our Customer means promoting safe and reliable travel options on our roadways through strategies addressing both recurring and non-recurring delay due to congestion, crashes, work zones, weather, and non-crash incidents.

02

TSMO for our Practitioners means promoting safe, effective, and practical solutions to existing infrastructure challenges with a quicker implementation time than traditional capital projects.

03

TSMO for our Commonwealth means promoting the Mission "To provide a safe, efficient, environmentally sound and fiscally responsible transportation system that delivers economic opportunity and enhances the quality of life in Kentucky"

04

Understanding the benefits of TSMO solutions and how they incorporate into our existing Project Development and Project Delivery and Preservation work gives the Transportation Cabinet access to a broader set of tools to assist project teams in making informed decisions that align with the Cabinet's vision for Kentucky.

How TSMO Aligns with the Cabinet's Vision & Mission

KYTC Mission Statement



To provide a safe, efficient, environmentally sound and fiscally responsible transportation system that delivers economic opportunity and enhances the quality of life in Kentucky.

KYTC Vision Statement



The Kentucky Transportation Cabinet is committed to meet or exceed the needs and expectations of our customers. Our focus is on people, our customers, our employees, and our partners.



We will continually improve both the delivery of our products and services and the processes which support that delivery. As we progress through the 21st century, we recognize that change is inevitable. We will strive to manage that change to the benefit of all our stakeholders.

Kentucky's transportation system must respond to a series of growing challenges to continue to effectively serve all users in the Commonwealth. TSMO strategies will help KYTC meet these challenges by improving how the transportation system operates without always requiring new infrastructure.

Looking to the future, capacity enhancement projects will still be necessary to meet certain performance needs, but TSMO can augment and improve those outcomes by optimizing projects' operations and preventing or minimizing operational problems in the future as congestion may grow. TSMO should be considered alongside and integral to these traditional projects.

Meeting today's—and tomorrow's—challenges with TSMO offers KYTC an enhanced approach to carrying out its Mission and achieving its Vision.

TSMO Strategic Objectives

KYTC adopts a proactive approach to using TSMO to address operational challenges, meet evolving customer demands for system performance, and leverage advancements in technology. The Cabinet commits to the thoughtful application of technology, communication, and collaboration with state, regional, and local partners to better

serve our customers. KYTC capitalizes on all opportunities to optimize how they operate existing and new transportation infrastructure, including planning for or responding to disruptive events on the network, addressing safety concerns (including vulnerable road users), integrating modes and new forms of mobility, and communicating system

conditions and system responses among our partners and to the public. Through a TSMO program planning process, KYTC seeks to strengthen key business processes and organizational elements to achieve this strategic vision for TSMO.

TSMO Strategic Objectives to Support Cabinet Goals

The KYTC TSMO Strategic Objectives support the five Department of Highways goals.



GOAL 1

PROMOTE SAFETY IN ALL DECISION MAKING

Prevent crashes and reduce rates of injuries and fatalities for all modes of travel.

Prevent crashes and reduce rates of fatalities and injuries in work zones.

Prevent traffic incident-related secondary crashes and reduce rates of fatalities and injuries, including among responders.



GOAL 2

STRENGTHEN STAKEHOLDER AND CUSTOMER RELATIONSHIPS

Partner with stakeholder agencies, local officials, and the public on TSMO actions across all modes.

Share real-time and historical transportation data with partner organizations.



GOAL 3

DELIVER ECONOMIC OPPORTUNITIES AND ENHANCE QUALITY OF LIFE

Reduce congestion and delay caused by recurring and non-recurring conditions.

Improve transportation network efficiency and reliability through improved operations and use of technology.

Invest in technology to improve all modes of transportation (including transit, non-motorized, and freight) and their access for all users.



GOAL 4

OPTIMIZE PERFORMANCE THROUGH PEOPLE AND INNOVATION

Communicate and educate the impact of TSMO strategies on system performance, both internally and externally.

Promote KYTC's use of transportation technology and innovation to attract and retain talented TSMO staff.

Integrate potential TSMO strategies and actions into the development process for capital projects to make the most informed investments.

Optimize ITS/TSMO asset investment through asset management principles and lifecycle planning.

Increase the resilience of ITS/TSMO assets.

Manage data and data use to optimize TSMO strategies.

Use technology to increase transportation system resilience.



GOAL 5

NURTURE A CULTURE OF DIVERSITY AND INCLUSION

Highlight TSMO technology and innovation to attract interns and permanent staff from underrepresented groups.

Ensure TSMO objectives and benefits are communicated to underserved communities.

Engage underrepresented groups to ensure that the TSMO program promotes diversity, equity, and inclusion.

KYTC TSMO Program

Kentucky's TSMO program is the business processes, procedures, activities, and staffing and responsibilities (sometimes captured in an organizational model for TSMO) needed to deliver strategic objectives for advancing TSMO.

The strategic objectives directly support the goals of the Cabinet, as articulated in the Department of Highways Strategic Plan, and its mission and vision to serve the citizens of the Commonwealth. Longstanding KYTC programs like construction and maintenance have provided and maintained an invaluable transportation network, and a more formal and more effective program for TSMO can maximize that network's efficiency and return on investment.