

TSMO 101 and inSITE Toolbox



By Kentucky Transportation Cabinet

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Benefits Statement

The Kentucky Transportation Cabinet (KYTC) TSMO Program developed and delivered a new TSMO 101 training course to more than 600 practitioners statewide, establishing a safety-first framework for TSMO across all Cabinet disciplines. Using a safe system approach, the program redefines TSMO around the “safe mobility of all people” and introduces the inSITE toolbox, a framework that organizes TSMO strategies by the aspect of travel they manage. By combining interactive training with a simple, memorable organizing structure, KYTC has extended TSMO literacy beyond traffic operations to reach planners, maintenance staff, designers, construction crews, local governments, and MPOs across the commonwealth.

In this case study you will learn:

How KYTC redefined TSMO around the safe system approach to build a broader, more inclusive program foundation

Why organizing TSMO tools into a simple framework of Space, Information, Time, and Events, can break down silos across a transportation agency

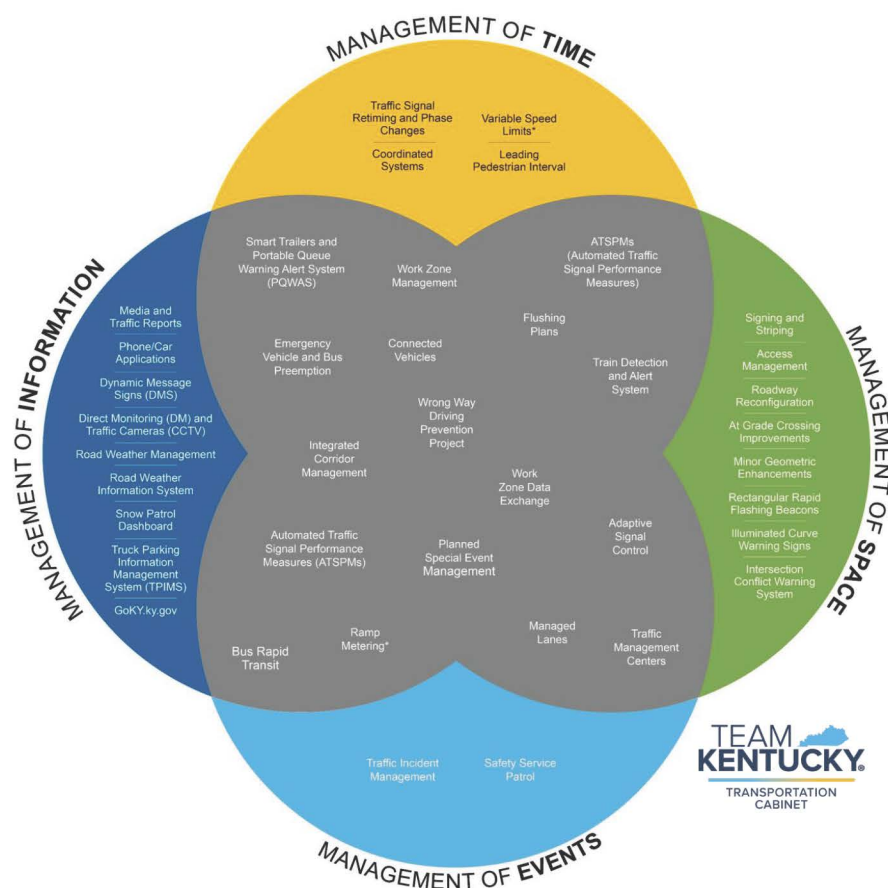
How an interactive training format can extend TSMO literacy beyond traffic operations to the entire transportation community

BACKGROUND

The KYTC TSMO Program developed a new type of Transportation Systems Management and Operations (TSMO) 101 training and delivered it to over 600 attendees across Kentucky. This training was unprecedented in how it defined TSMO, created and organized a toolbox, and focused on a broad audience of transportation practitioners. In the past, TSMO programs have primarily focused on optimizing operations through existing infrastructure and new technology. As Kentucky takes steps to incorporate the safe system approach and complete streets into all areas of practice, the team knew that a focus on safety was integral in defining TSMO for KYTC. While operations and technology are part of this, the broader focus led the program to prioritize the “safe mobility of all people” as its primary goal. This programmatic foundation was established alongside the TSMO 101 training and woven throughout the three-hour session.

TSMO PLANNING, STRATEGIES, AND DEPLOYMENT

As the training team began exploring ways to communicate the “how” of implementing TSMO, they found that the best way to explain TSMO strategies was as a “toolbox.” Under KYTC’s structure, no tool or strategy technically falls under TSMO. This allows each practice within KYTC, such as traffic operations, ITS, maintenance, construction, planning, and design, to maintain ownership of their tools and feel empowered to create new ones. However, to break down those silos and create a unified understanding of these tools for promoting the safe mobility of all, the TSMO toolbox was created



COMMUNICATIONS PLANNING AND EXECUTION

Knowing that simply throwing a list of tools at training attendees would be inefficient, the team decided that some type of organization that could be understood by members of and adjacent to all transportation practices could help make these tools more digestible. This led to the innovative development of KYTC's inSITE toolbox, which takes tools used for safe mobility around the commonwealth and groups them based on the aspect(s) they manage. Tools were found to mostly help with the management of Space, Information, Time, Events, or any combination of these. Taking the first letters of these concepts creates the "SITE" acronym. Breaking down the tools and strategies into these categories helps communicate their uses as the training steps through each one that is currently being used in Kentucky. The management of space can range from the space within an intersection and giving priority, to the arrangement of a corridor and geometric communication. The management of information includes both the collection and distribution of data as well as the use of such information in analyses and decisions. The management of time is often reflected in signal operations and the various means to create efficiency in roadway networks. And finally, the management of events spans from preparing for planned events to reacting to emergency situations.

OUTCOME, BENEFIT, AND LEARNINGS

Aside from creating a new way to organize TSMO solutions, the KTYC TSMO 101 training has engaged practitioners from not only the Cabinet but local governments, consultants, and MPO's to reach not only traffic professionals but the whole transportation community. The training is an interactive class that combines Menti engagement, Kahoot competitions, and both whole class and small group breakout sessions to capture the attention of classes with participants ranging from traffic engineers

to construction zone workers. This variety of attendees is reflected in not only the tools discussed but the content created for the class, such as videos of KYTC leaders showcasing TSMO strategies ranging anywhere from automated traffic signal performance measures (ATSPMs) used in the Traffic Division to portable queue warning alert signs (PQWASSs) created in the Construction Division. Between the shift from a focus on operations to alignment with the safe system approach, Complete Streets and other foundational programs, the creation of a TSMO toolbox that organizes strategies, and an engaging training that breaks down silos within KYTC and the transportation industry, this training session has had a significant effect in beginning the shift at KYTC to provide safe mobility for all users.