

Feasibility of a Regional Transportation Systems Management and Operations (TSMO) Program

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BACKGROUND AND OBJECTIVES

Metropolitan Planning Organizations (MPOs) are federally mandated transportation planning organizations comprised of representatives from local governments, modal providers, and appropriate state officials. MPOs develop and maintain the required transportation plans and programs for a metropolitan planning area to ensure that federal funds support local priorities. Transportation Systems Management & Operations (TSMO) is the application of multimodal transportation strategies and technologies intended to maximize the efficiency, safety, and reliability of the transportation network. Examples include, but are not limited to, work zone management, traffic incident management, special event management, transit management, traffic signal coordination, congestion pricing, active transportation and demand management, and integrated corridor management.

To address new and changing forms of congestion and technological advances for TSMO in the 21st century, MPOs will need to evolve in terms of their purpose and relationship within a megaregion or corridor. This report is the culmination of a multiyear effort to provide the Central Florida TSMO Working Group with a framework on how MPOs can collaborate within a megaregion to advance TSMO in the planning process.

METHODOLOGY

The research began with a national review of best practices and lessons learned for TSMO strategies at the regional and megaregional scale. Case examples of multi-MPO and multi-state collaborations in TSMO were developed and among these example agencies, interviews focused on how regional TSMO planning and management activities were conducted and documented. Finally, a peer exchange with planners and engineers from around the country was organized to discuss how MPOs can collaborate to advance TSMO in the planning process. Information gleaned from the literature review, case examples, and semi-structured interviews was synthesized into a framework for a regional TSMO program.

RESEARCH FINDINGS

The result of this research is the creation of a framework for establishing a regional TSMO program. The framework contains approaches for establishing an entity that integrates TSMO strategies over a megaregion, including funding, staffing, and governance. The framework is comprised of seven key elements:

1. Developing a strategic TSMO plan
2. Publishing a work plan
3. Publishing an annual review
4. Identifying stable and dedicated funding mechanisms
5. Providing dedicated staff for TSMO activities
6. Establishing a clear governance structure that includes political support
7. Developing a plan for education and communication activities

The study also explored opportunities to address equity within a regional TSMO program. Key avenues identified relative to equity included:

1. Highlighting equity in the goals and objectives of the strategic plan
2. Including diversity, equity, and inclusion principles and language into the organization's bylaws, MOUs, or other defining documents
3. Including equity considerations in funding criteria and for project evaluation and selection
4. Adopting performance measures that evaluate the organization's progress in meeting equity objectives defined in the adopted strategic plan, work plan, or other planning documents.

POLICY AND PRACTICE RECOMMENDATIONS

A key element in TSMO is that it focuses on operational performance, not changes or additions in transportation infrastructure. For areas in which TSMO activities span across regions or throughout an entire megaregion, a single MPO may not have the tools or authority to properly manage these activities.

For the Central Florida Regional TSMO Program Working Group: This framework for a regional TSMO program was created to improve the coordination of TSMO decision-making in the Central Florida region. As leaders from the Working Group continue to come together to discuss next steps, we recommend they use the framework and equity considerations to maximize the likelihood that TSMO goals and objectives in the region are prioritized, funded, and managed efficiently and effectively.

For all MPOs and other agencies that plan and program TSMO activities: The use of this framework is not limited to Central Florida. It has been designed to be universal and can serve as a guide for other regions and MPOs in the country that wish to enhance coordinated TSMO decision-making in their area, especially in regions where several planning agencies are aligned to share economies and travel. Additionally, regional agencies should incorporate the strategies to address equity within the regional TSMO framework listed as part of this research as they build their regional TSMO strategies.

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