

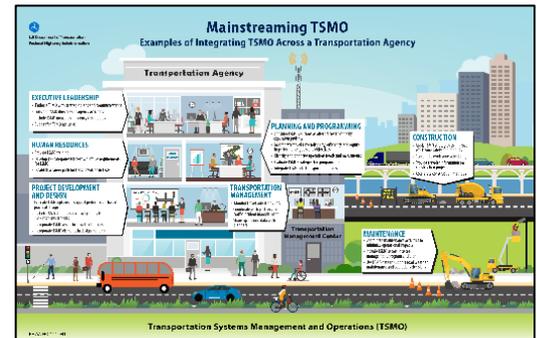
Federal Highway Administration Office of Operations Recent TSMO Resources

Communications Resources

Mainstreaming TSMO: Examples of Integrating TSMO Across a Transportation Agency

Resources to support mainstreaming transportation systems management and operations (TSMO) in transportation agencies.

Infographic. Shows ways a transportation agency can integrate TSMO throughout its organization to advance and mainstream TSMO. Examples show how TSMO can be supported and mainstreamed by executive leadership and human resources throughout the project and program lifecycle: planning and programming, project development and design, construction, maintenance, and ongoing transportation management.



Available at:

<https://ops.fhwa.dot.gov/publications/fhwahop21041/fhwahop21041.pdf>

Webinars. Webinar one looks at how policies and processes can be used to mainstream TSMO in an agency, integrate it across divisions, and make TSMO meaningful and useful to staff throughout the organization. Webinar two explores how using operations data for decisionmaking can advance and integrate TSMO and illustrates applications for making the business case for TSMO, identifying TSMO strategies, helping TSMO solutions compete during planning and investment prioritization, and identifying safety improvements.

Available at:

<https://transportationops.org/ondemand-learning/mainstreaming-tsmo-through-policies-and-processes>
<https://transportationops.org/ondemand-learning/using-operations-data-support-mainstreaming-tsmo>

TSMO Benefits Infographic

Infographic showing five examples of benefits identified by State departments of transportation (DOTs) from implementing TSMO strategies.

Available at: <https://ops.fhwa.dot.gov/publications/fhwahop21054/index.htm>

2022 National Work Zone Awareness Week

Fact sheet highlights safety precautions in work zones and provides statistics on work zone fatalities and serious injuries.

Available at: <https://ops.fhwa.dot.gov/publications/fhwahop22050/fhwahop22050.pdf>

Coordination of Information Technology and TSMO

Practices for Improving the Coordination of Information Technology and Transportation Systems Management and Operations Resources: A Reference Document highlights the value of coordination and collaboration between operations and information technology (IT) staff. It also provides transportation operations professionals involved in planning for, designing, operating, and maintaining transportation operations and management systems with information on practices for coordinating operations and IT business processes. The reference document complements previously completed fact sheets and webinars on this subject, which are available at: https://ops.fhwa.dot.gov/plan4ops/focus_areas/integrating/it.htm

Direct link to reference document: <https://ops.fhwa.dot.gov/publications/fhwahop21008/index.htm>

Operations-Related Resources for Local Agencies

Webpage developed to help local and regional agencies more quickly identify and access FHWA Operations resources that are particularly relevant to local contexts. FHWA products and websites for local audiences are organized by program, such as arterial management, curb space management, parking management, and shared use mobility.

Available at: https://ops.fhwa.dot.gov/plan4ops/resources/loc_trans_agencies.htm

Bringing Traffic Incident Management to Local Roads

Fact sheet, developed as part of the Every Day Counts (EDC) Initiative: Next-Generation Traffic Incident Management, focuses on scaling traffic incident management to local roads and provides a brief summary of the state of the practice as well as links to other resources.

Available at: <https://ops.fhwa.dot.gov/publications/fhwahop21036/fhwahop21036.pdf>

Communicating TSMO with Other Disciplines Presentations Slides

Set of presentation slide decks, each exploring ways that TSMO can collaborate with 1 of 10 other key disciplines in a transportation agency. The slides build on previously published TSMO fact sheets to provide more in-depth information about the relationship between TSMO and the respective discipline. Each presentation will be available for download as a PowerPoint® file so that TSMO professionals can modify and use them for presentations to their colleagues in other disciplines. Currently, presentation files for Environment, Maintenance, and Construction are posted.

Available at: https://ops.fhwa.dot.gov/plan4ops/focus_areas/integrating/tsmo_factsheets.htm

Complete Trip Data Factsheet

Factsheet that provides results of recently completed research into the notion of Complete Trip Data—data that provide, at a minimum, location, time, and mode of travel for trips on the multimodal transportation system. The fact sheet contains information on Complete Trip Data, sample fields to be used in an acquisition, and potential uses of the data.

Available at: <https://ops.fhwa.dot.gov/publications/fhwahop22066/index.htm>

Technical Reports, Training, Websites, and Tools

Applying TSMO in Rural Areas

Report provides local and State agencies with resources they can use to explain the benefits of implementing TSMO in rural areas. The publication presents a business case for TSMO in rural areas, funding opportunities, and emerging trends and technologies. The document also details 10 case studies in rural areas based on five topics: road weather management, traffic incident management, work zones, seasonal demand, and special events. The document concludes by recognizing that the conversation on implementing TSMO in rural areas is just beginning, and suggests that more research and outreach are still needed to progress TSMO in rural communities

Available at: <https://ops.fhwa.dot.gov/publications/fhwahop22026/index.htm>

Approaches to Target Setting for Performance Measure 3 (PM3) Measures

Report provides example approaches to setting targets for the third performance management rulemaking, or PM3, measures. The approaches include technical options for developing the information to support target setting.

Available at: <https://ops.fhwa.dot.gov/publications/fhwahop19056/index.htm>

Traffic Analysis Capability Maturity Framework

Tool agencies can use to assess and advance their traffic analysis capabilities. Modern traffic analyses require capabilities and resources that are not always available. Building on the success of the TSMO capability maturity model, FHWA has developed a traffic analysis capability maturity framework to support agency advancement efforts.

Available at: <https://ops.fhwa.dot.gov/publications/fhwahop21062/index.htm>

Applying Asset Management to Signals and ITS

Two primers and webinar recordings that will equip State and local agencies to apply asset management principles to signals and ITS assets. The materials are structured around the Moving Ahead for Progress in the 21st Century ([MAP-21](#)) [Transportation Asset Management Plans](#) requirements.

Available at: https://ops.fhwa.dot.gov/program_areas/ops-asset-mgmt.htm

Automated Driving Systems Operational Behavior and Traffic Regulations Information—Concept of Use

Report details research investigating the challenges of establishing a database of automated driving system (ADS)-ready traffic laws and regulations, as well as proposed access and exchange requirements to support sharing and consumption of the information within the ADS ecosystem. The report describes collaboration among State and local traffic code stakeholders and ADS behavior subject matter experts. It looks at currently available data that support automated vehicle integration into the roadway system. It also investigates inconsistencies in basic traffic laws across the Nation and how they affect ADS behavior. The concept of use describes the background, stakeholder needs, design concepts, use cases, and other considerations for the design and development of an ADS regulations data framework.

Available at: <https://ops.fhwa.dot.gov/publications/fhwahop20041/index.htm>

2020 Traffic Incident Management Capability Maturity Self-Assessment National Analysis

Report summarizing the 2020 Traffic Incident Management Capability Maturity Self-Assessments (TIM CM SA) completed by transportation personnel from 99 locations across the country between September and December 2020. Scored questions in the TIM CM SA are grouped into three sections: strategic, tactical, and support. The TIM CM SA underwent a major revision in 2020, and scores were recalibrated to use the 2015 TIM CM SA as the new baseline for measuring progress. The 2020 overall TIM CM SA score was 70 percent, representing a 9.3 percent increase over the new baseline.

Available at: <https://ops.fhwa.dot.gov/publications/fhwahop21022/index.htm>

2020 Urban Congestion Trends: Leveraging Data to Improve Operations Performance

Report on congestion trends, showing considerable improvements in 2020 versus 2019, due primarily to the effects of the pandemic. Three measures—travel time index (peak hour travel), planning time index (reliability), and hours under congested conditions—are reported as national aggregate measures based on results in the 52 urbanized areas with the largest populations in the United States. The report includes case study examples of operational strategy evaluations.

Available at: <https://ops.fhwa.dot.gov/publications/fhwahop20012/index.htm>

Resources Coming Soon

- Additional resources on mainstreaming TSMO and TSMO benefits
- Additional Connecting TSMO with other disciplines presentation slides
- *Advancing TSMO through Organizational Structures*
- *Applying TAMP System Performance Requirements to Pavement and Bridge Conditions*
- *Connecting TSMO and Transportation Equity Fact Sheet*
- *2021 Urban Congestion Trends Report*