MARYLAND STATE HIGHWAY ADMINISTRATION
ORGANIZATIONAL MODERNIZATION TO ADVANCE TSMO

By: Maryland Department of Transportation State Highway Administration (MDOT SHA)

IN THIS CASE STUDY YOU WILL LEARN:

1. How Maryland Department of Transportation State Highway Administration (MDOT SHA) used a roadshow to advance the understanding of TSMO and benefits of TSMO strategies.

2. How MDOT SHA organizationally transformed with key communication, outreach, and education activities; followed with a specific workforce development example and its outcome.

3. How the TSMO-centric workforce focused on implementation of the TSMO Strategic Plan.

BACKGROUND

Maryland Department of Transportation State Highway Administration (MDOT SHA) customer needs are becoming more diverse. Technology is playing a big role in how and when people travel, and customers expect more real-time, proactive transportation solutions and efficient/timely project delivery. To address these needs, MDOT SHA is working to deploy Transportation Systems Management and Operations (TSMO) strategies to actively manage Maryland’s multimodal transportation network.

Within the past three years, MDOT SHA has transformed itself organizationally to advance TSMO planning, strategies, and deployment, and key workforce development activities are underway to support TSMO planning and execution. This application highlights MDOT SHA’s TSMO organizational transformation; key communication, outreach, and education activities; and a specific workforce development example and its outcome.

TSMO PLANNING

A key factor in developing a TSMO-centric workforce is an organizational structure focused on implementation of the TSMO Strategic Plan. Since 2016, the MDOT SHA TSMO organizational structure has been formally institutionalized to help steer the workforce culture towards TSMO. The MDOT SHA TSMO Organizational Structure includes a TSMO Executive Committee, TSMO Working Group, and TSMO Implementation Teams.

EXECUTIVE COMMITTEE

The TSMO Executive Committee provides overall governance and strategic level guidance to the MDOT SHA TSMO Program. Responsibilities of this committee include setting TSMO organizational policies and overall program direction; oversight of the preparation, adoption, and implementation of the TSMO Strategic Plan; and high-level management and coordination of resources (funding, personnel, etc.) for tactical and operational actions/activities supporting delivery of TSMO Strategic Plan goals, objectives, and strategies. The TSMO Executive Committee is co-chaired by the Deputy Administrator/Chief Engineer for Operations and the Deputy Administrator/Chief Engineer of Planning, Engineering, Real Estate and the Environment. The Deputy Director/TSMO Program Manager works in close coordination, collaboration, and communication with other MDOT SHA Offices, Districts, and other MDOT transportation business units (TBUs) as necessary to deliver TSMO program elements. Recently, a new position was created and filled under the Deputy Director/TSMO Program Manager focused exclusively on delivery of MDOT SHA’s Connected and Automated Vehicle (CAV) Program.
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TSMO WORKING GROUP AND TASK FORCES
The TSMO Working Group is a cross-disciplinary, multi-office, and multi-district collaborative group responsible for identifying and executing specific actions, deliverables, and resources required to implement strategies in the Strategic Plan. The Working Group is comprised of the following Task Forces:
- Business Processes & Policy
- Training & Education
- Systems & Technology
- Data, Analysis, & Performance Measures
- Communication & Outreach
- Connected & Automated Vehicles
- Multimodal Freight
The TSMO Working Group coordinates the activities of the Task Forces and serves as the interface between them and the TSMO Executive Committee. The TSMO Working Group is also responsible for coordinating the implementation of specific actions and projects at the operational level through the responsible MDOT SHA Offices, districts, and MDOT TBUs.

TSMO IMPLEMENTATION TEAMS
This operational level of the MDOT SHA TSMO Organization represents all the existing MDOT SHA Offices and Districts that either lead or provide support for carrying out implementation of actions identified by the TSMO Work Group and Task Forces. This level also includes coordination with other MDOT TBUs as needed.

STRATEGY AND DEPLOYMENT
In a big step towards enhanced TSMO workforce development, the Chief Engineer took TSMO “on the road” during his annual district tours in spring 2019. The TSMO Roadshow included site visits to each of the seven MDOT SHA District Offices, with customized presentation content based on the characteristics and function(s) of each district.

General/introductory TSMO content covered the following topics:
1. What is TSMO?
2. Why the agency emphasis on TSMO?
3. What does TSMO mean for MDOT SHA employees, offices, districts, shops, etc.?
4. What’s Next?
In addition, each district’s specific operational needs and possible TSMO strategies and solutions were discussed.

Key operational focuses from each district include:
- District 1: Flooding, seasonal travel, works zones, and road weather applications.
- District 2: Road closures, detours during construction, travel advisory communication, work zone operations, road weather applications, and increased use of technology-based solutions.
- District 3: Multi-modalism, safety and mobility, context sensitive solutions, digital project portal, asset management, and maintenance operations.
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- District 4: Strategic buy-in of the system level operations perspective, emphasis on outreach for TSMO strategies, and integrated freeway/arterial operations.
- District 5: Congestion, seasonal travel, work zone management, and continued operations-oriented awareness building.
- District 6: Winter operations, truck parking, public private partnership opportunities, the I-81 Corridor, and weather advisory systems.
- District 7: Making TSMO projects a priority, resiliency, and improved stakeholder involvement process.

TSMO outreach is being conducted to reach field maintenance shops via the annual maintenance shop tours, and a TSMO session was integrated into MDOT SHA’s Maintenance Leadership Academy.

COMMUNICATIONS

MDOT SHA is taking a comprehensive approach to ingrain TSMO within the agency workforce. MDOT SHA’s Office of Communications, working in conjunction with both the TSMO Training & Education and Communication & Outreach Task Forces, has developed a TSMO Communications and Outreach Plan. This plan includes four goals, all of which impact workforce development:

1. Increase awareness of TSMO within MDOT SHA
2. Create a culture around TSMO at all levels to successfully implement the TSMO Strategic Plan
3. Develop communications and outreach strategies to reach and inform both internal and external audiences
4. Create consistent messaging for MDOT SHA’s TSMO efforts that are specific to each audience

Communications and outreach tools/methods include:
- Presentations and Training
- Branding and Messaging
- Email Blasts
- Blog/Articles
- News/Media
- Web, Social Media, and Videos

OUTCOMES, BENEFITS, LEARNINGS

Specific accomplishments and ongoing activities include:
- An educational and informative TSMO intranet for MDOT SHA employees to store, access, and share documents.
- Creation of a TSMO Style Guide to ensure consistency of TSMO messaging and branding both internally and externally.
- Development of a new “TSMO in Maryland” publicly facing website for internal and external audiences (in process and nearing completion).
- Future communication/outreach activities will include use of MDOT SHA’s social media channels.

FURTHER INFORMATION

NOCoE Knowledge Center: https://transportationops.org/knowledge-center
MDOT SHA “What is TSMO?” Video: https://vimeo.com/326424724/4abb4618c9
MDOT SHA Mobility and Reliability Website: https://www.roads.maryland.gov/Index.aspx?PageId=711