

## Organizing to Improve Travel-Time Reliability

### Helping transportation agencies fulfill their mobility mission

In recent years, transportation agencies have begun to evolve from the traditional construction and maintenance focus that started in the interstate highway construction era towards recognition of the need to take a customer-focused approach to operating the system as a coordinated transportation network. Key challenges to improved effectiveness of transportation systems management and operational strategies are no longer primarily related to technology or understanding of best practice. Reaching full potential requires that specific supportive business processes and institutional arrangements be put in place, monitored, and managed—just as is typically done for the other formal core programs, such as construction and maintenance.

Operational strategies also require a collaborative and coordinated effort among many state and metropolitan transportation organizations and other entities such as enforcement and emergency services, including departments of transportation (DOTs), fire, police, emergency medical units, and towing and recovery.

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### Advancing Operational Strategies

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## The Solution

A formal procedure to integrate and mainstream operations into a transportation agency’s program has been developed through the second Strategic Highway Research Program (SHRP2). This SHRP2 Solution offers a structure that will **enable agencies to develop institutional arrangements that are suitable to the special real-time demands of transportation systems management and operations** (TSM&O), which is now emerging as a new transportation agency priority.

*Advancing Operational Strategies* provides transportation agencies with a “capability” framework in which to conduct a comprehensive and systematic self-assessment of current and desired capabilities to successfully execute operations programs that improve travel-time reliability.

### Creating an Organization and Workforce That Proactively Manages the Transportation System

FOCUS AREA:  
Reliability (L06)

Comprehensive and systematic examination of effective organization techniques to successfully execute operations programs.

#### Save Lives

- Well-managed interagency and intra-agency operations improve the safety and sustainability of the highway system.



#### Save Money

- Better operations management results in more cost-effective investment of limited resources.
- Better travel-time reliability allows commuters and freight operators to avoid costly delays.



#### Save Time

- Effective coordination leads to reduced traffic congestion and traveler delay.



Using a focused workshop setting, state and local transportation agencies can undertake a self-assessment of their existing operations, using the capability framework. The framework identifies all the elements needed to continually improve activities one level at a time for business processes, systems and technology, performance management, culture, organization and workforce, and collaboration.

The structure of these workshops is an evaluation of the strengths and weaknesses of six dimensions of organizational capability, which enables the agency to assess the effectiveness of its existing current range of TSM&O programs, as well as identify the features associated with effective programs. The workshops include an analysis of the relationships and interactions among program effectiveness, required technical and business processes, and supportive institutional and organizational arrangements.

Following the self-assessment workshop, an implementation plan is developed, identifying specific actions, with the goal of elevating the agency's capabilities to improve travel-time reliability and the efficiency of their transportation system.

## Who is using this product?

Several state DOTs and metropolitan planning organizations are now beginning the self-assessment process through the FHWA/AASHTO Implementation Assistance Program. Several pilots have been conducted across the country, including for example, Arizona and Tennessee.

## The Benefits

Successfully executed systems operation and management will streamline operations and lead to reduced congestion and reduced costs. Additionally, it will build credibility with the public and improve trust and partnering with entities as it adds transparency to the business model. In accordance with *Moving Ahead for Progress in the 21st Century* (MAP 21) performance guidelines, the product will assist DOTs with the development of required asset management plans.

## How can you learn more?

For more information, contact Joe Gregory at FHWA, [joseph.gregory@dot.gov](mailto:joseph.gregory@dot.gov); Gummada Murthy at AASHTO, [gmurthy@aaashto.org](mailto:gmurthy@aaashto.org); and William Hyman at TRB, [whyman@nas.edu](mailto:whyman@nas.edu). A web-based Capability Maturity Model (CMM) tool, *Systems Operations and Management Guidance*, is available on the AASHTO website at [www.aashtosomguidance.org](http://www.aashtosomguidance.org). The following resources are available online and from the TRB Bookstore: *Institutional Architectures to Improve Systems Operations and Management*, at <http://www.trb.org/Publications/Blurbs/165285.aspx>; and *Guide to Improving Capability for Systems Operations and Management*, at <http://www.trb.org/Publications/Blurbs/165286.aspx>.

### About SHRP2 Implementation



The second Strategic Highway Research Program is a national partnership of key transportation organizations: the Federal Highway Administration, the American Association of State Highway and Transportation Officials, and the Transportation Research Board. Together, these partners conduct research and deploy products that will help the transportation community enhance the productivity, boost the efficiency, increase the safety, and improve the reliability of the Nation's highway system.

### Strategic Highway Research Program

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