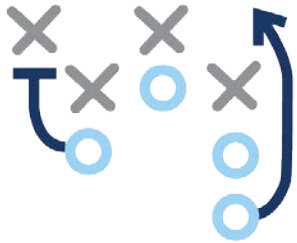


PennDOT TSMO Program



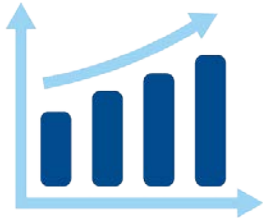
Transportation Engineering
and Safety Conference
December, 2018





TSMO PURPOSE

A way to address reliability, mobility, and congestion by utilizing strategies rather than just trying to build our way out.



TSMO Vision

A less congested, more reliable network.

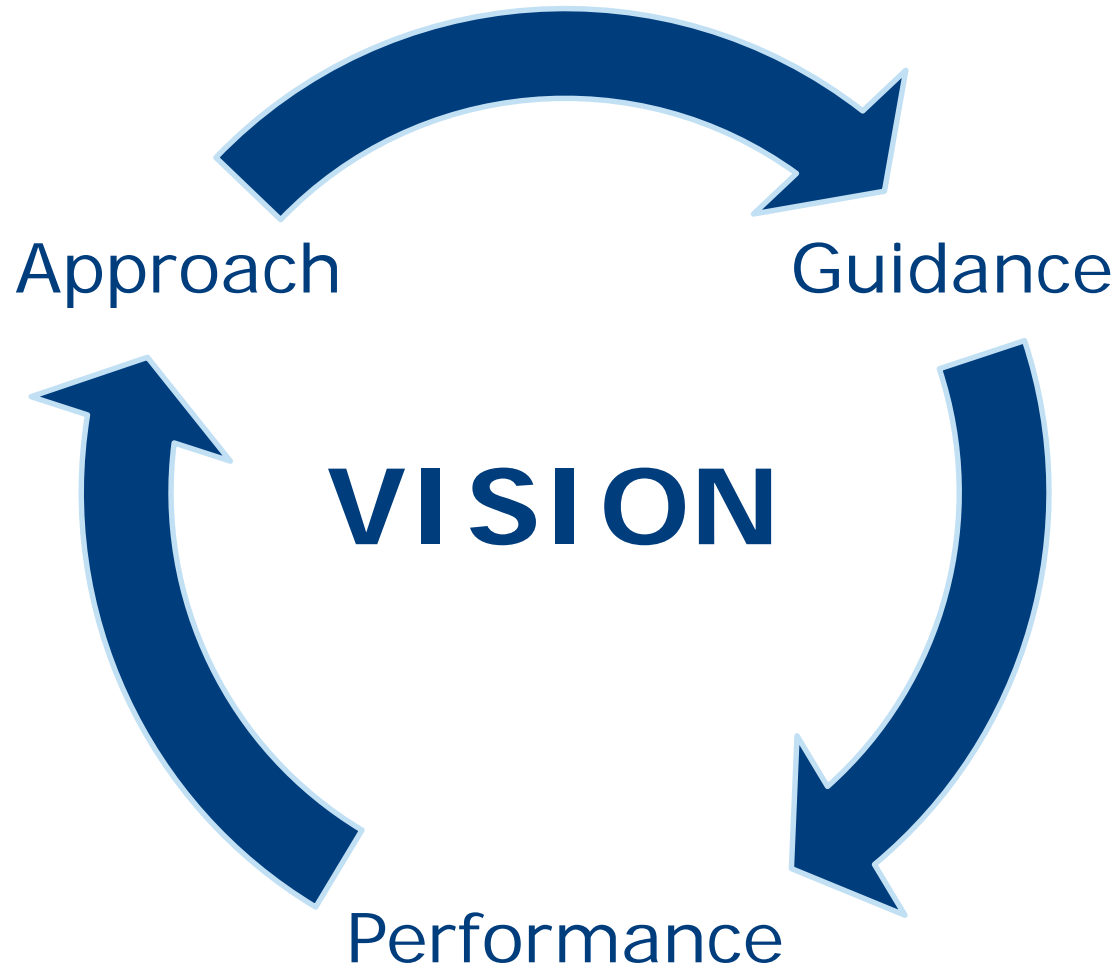


TSMO Mission

Move people and goods, from Point A to Point B, as efficiently, safely, and reliably as possible.

TSMO Maturity

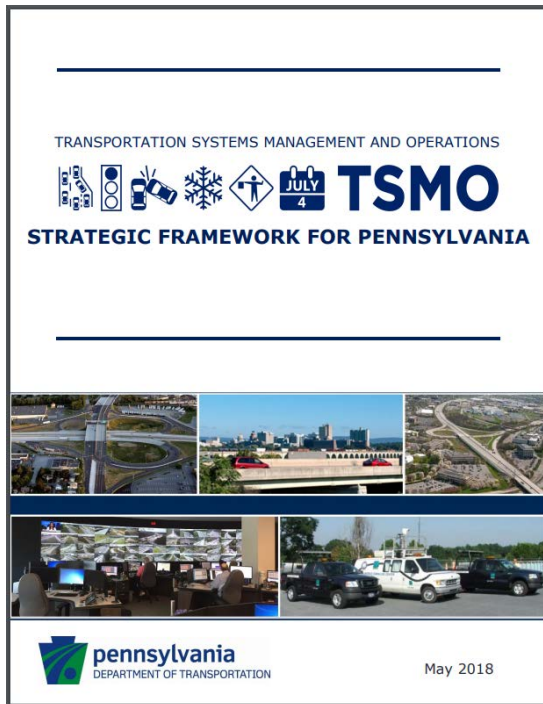
Dimensions	Level 1 Performed	Level 2 Managed	Level 3 Integrated	Level 4 Optimizing
Planning & Programming		----->		
Systems & Technology		----->		
Performance		----->		
Culture			----->	
Organization & Staffing		----->		
Collaboration		----->		



TSMO Program

Vision

Strategic Framework



Approach

Program Plan



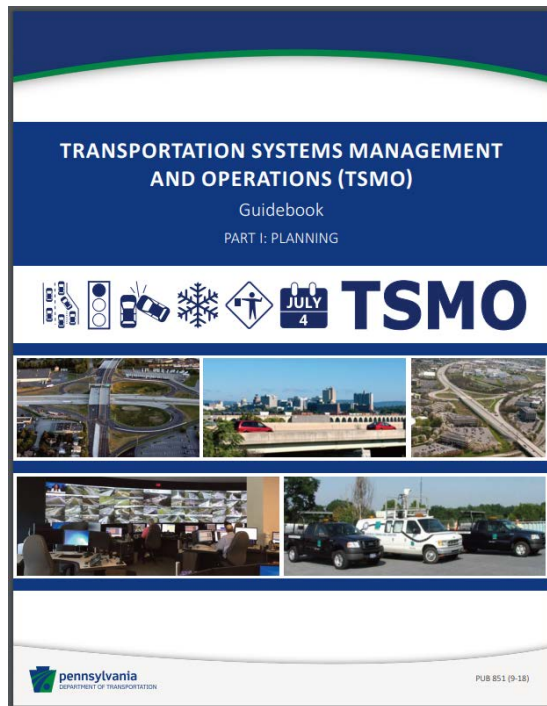
www.penndot.gov ( TSMO)



TSMO Program

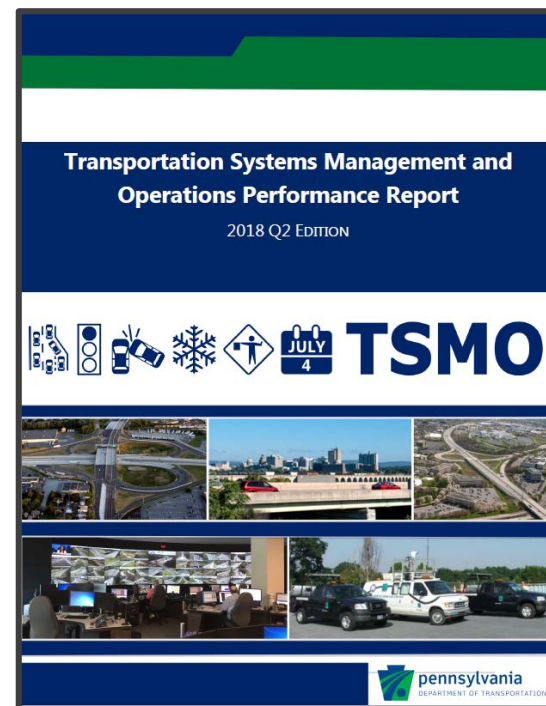
Guidance

Guidebook Series



Performance

Performance Reports



VISION: TSMO Strategic Framework

➤ What is TSMO?

- The Pennsylvania Perspective

➤ Why TSMO?

- The Mobility Issue
- The Safety Issue
- The Funding Issue

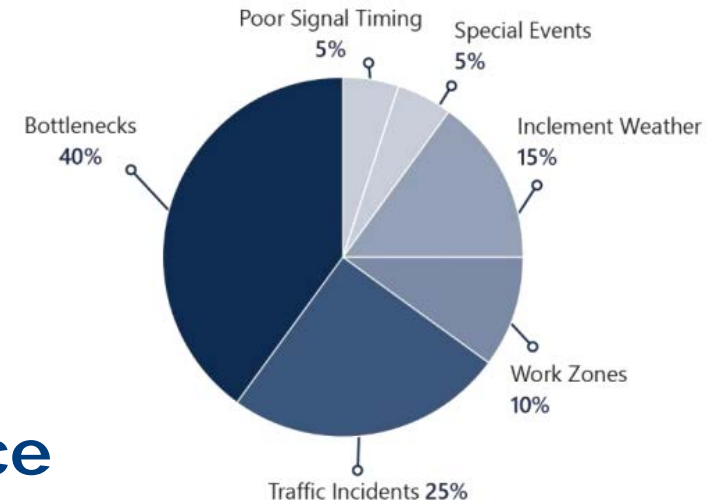
➤ Current State of the Practice

- Organizational Structure
- Project Development Process
- PennDOT CMM Assessment

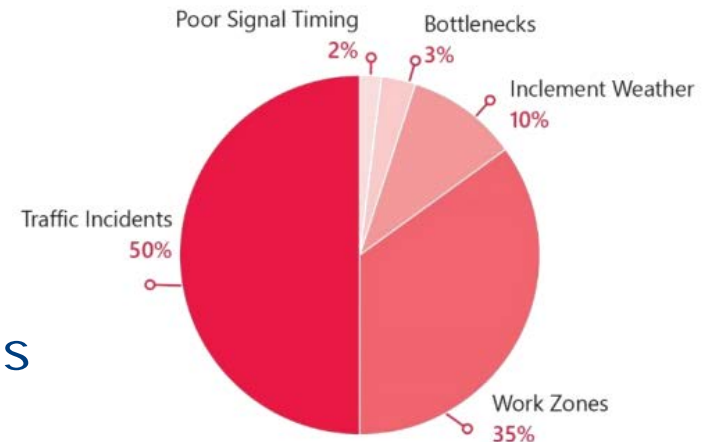
➤ TSMO Strategic Direction

- Vision, Mission, and Goals
- How to Use the TSMO Documents

URBAN CONGESTION PERSPECTIVE



RURAL CONGESTION PERSPECTIVE



VISION: TSMO Toolbox

Bottlenecks	Poor Signal Timing	Traffic Incidents	Inclement Weather	Work Zones	Special Events
					

Bridge De-icing
Closed Circuit TV Cameras
Dynamic Curve Warning
Dynamic Message Signs
Dynamic Rerouting
Flex Lanes
Freeway Service Patrols
Integrated Corridor Mgmt
Junction Control
Managed Lanes
Queue Warning

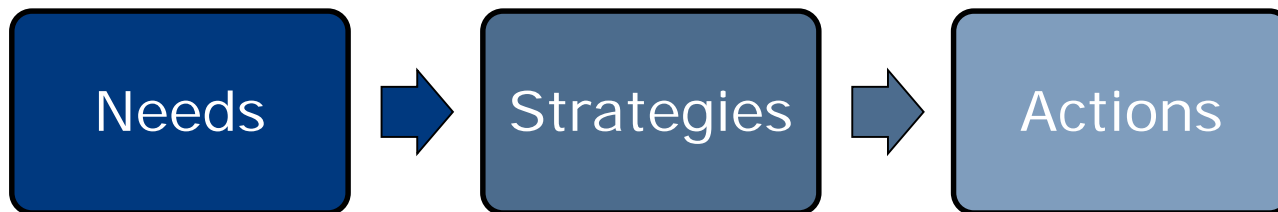
Ramp Metering
Road Weather Info Systems
Smart Corridor Initiatives
TIMS Teams
Traffic Incident Detection
Traffic Management Centers
Traffic Signal Enhancements
Transit Signal Priority
Traveler Information
Variable Speed Displays



APPROACH: TSMO Program Plan

Needs

Consider Operations Throughout Project Life Cycle
Provide Adequate Funding & Guidance
Establish Performance Measures
Foster Knowledge & Provide Training
Improve Intra-Agency Coordination
Improve Interagency Coordination
Appropriate Staffing & Org Structure
Proper Documentation & Tools
Document Operations Policies and Procedures



APPROACH: TSMO Program Plan

Dimensions

Planning & Programming

Systems & Technology

Performance

Culture

Organization & Staffing

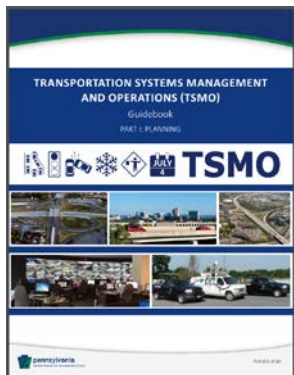
Collaboration

SYSTEMS AND TECHNOLOGY



GUIDANCE: TSMO Guidebook Series

Planning



Design

TSMO
Guidebook

Part II

Construction

TSMO
Guidebook

Part III

Maintenance

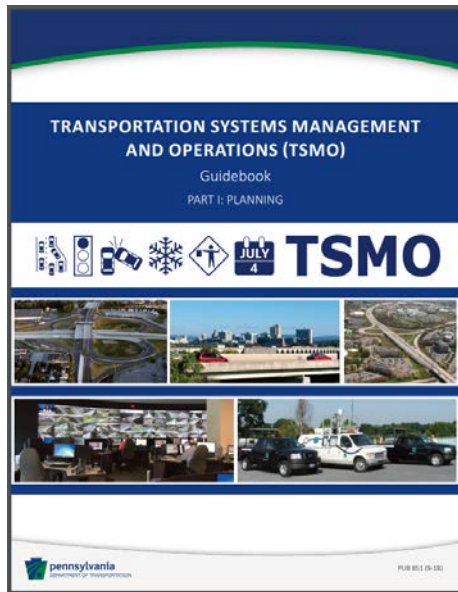
TSMO
Guidebook

Part IV

Operations

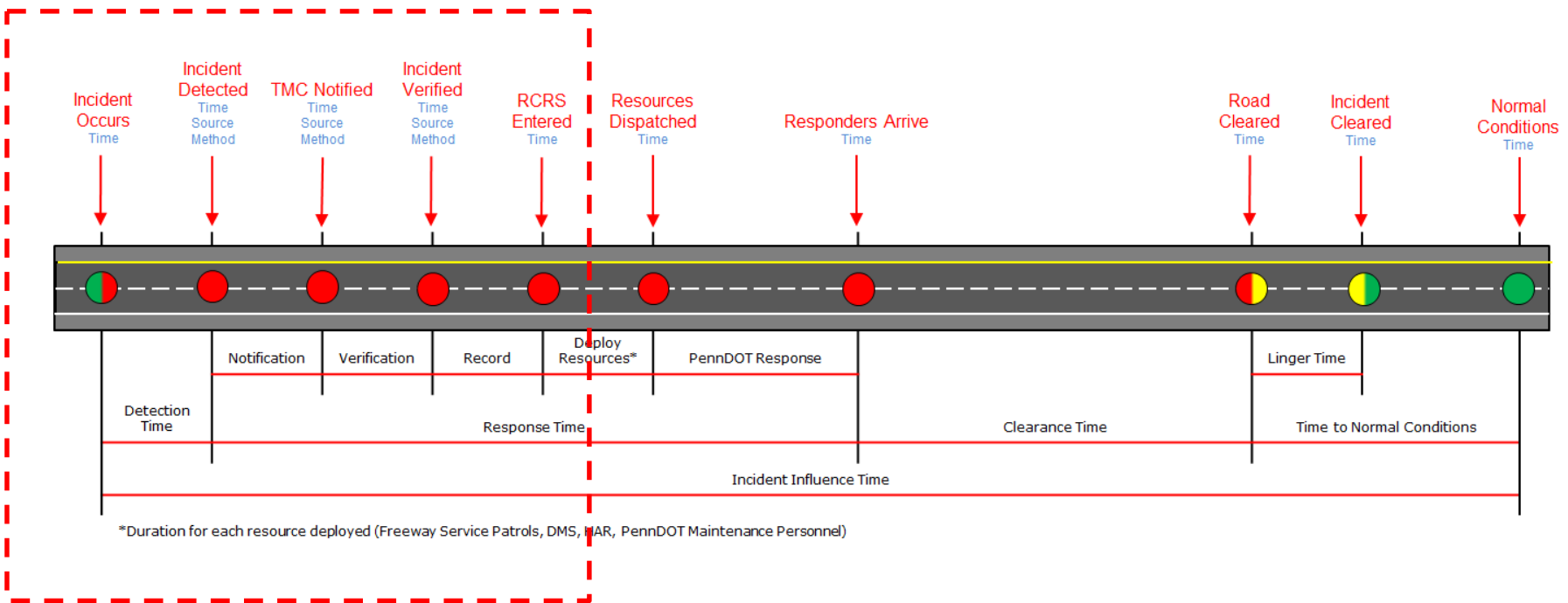


Planning



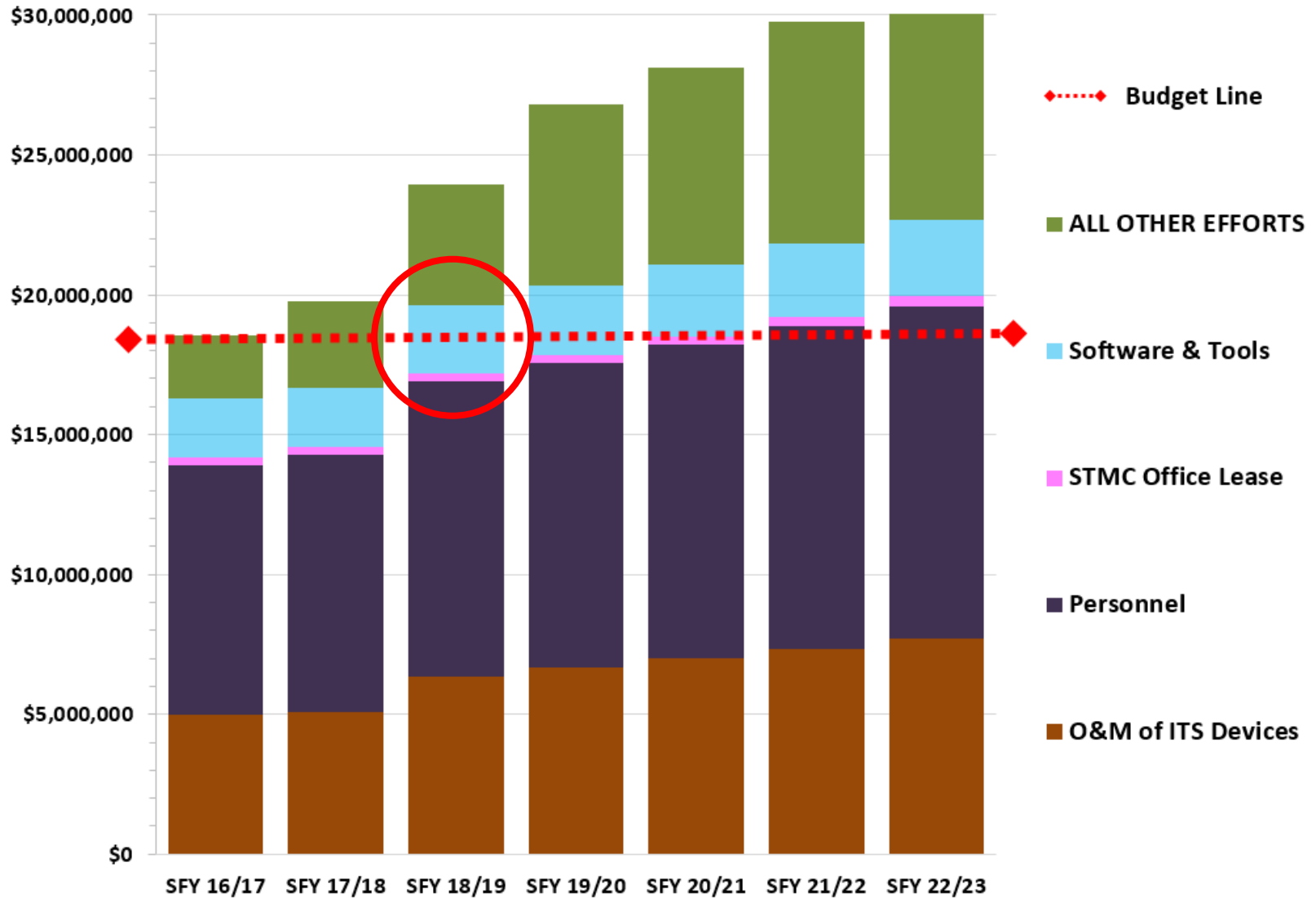
1. Introduction
2. TSMO Business Area Plans
3. Regional Operations Plans
4. Identifying Congestion
5. Classifying Congestion
6. Mitigating Congestion
7. Federal System Performance Measurement

PERFORMANCE: TSMO Performance Reports



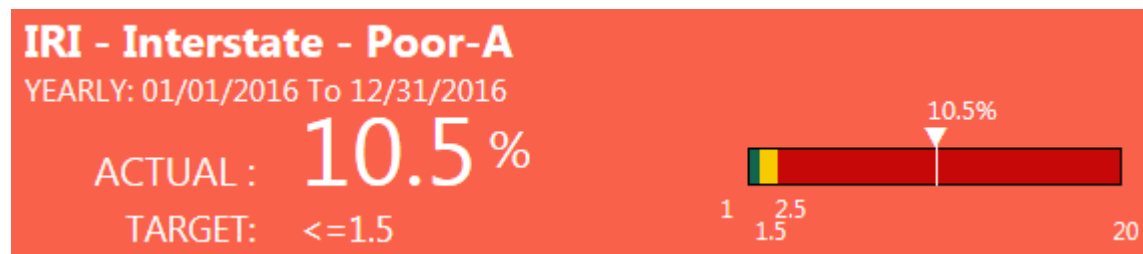
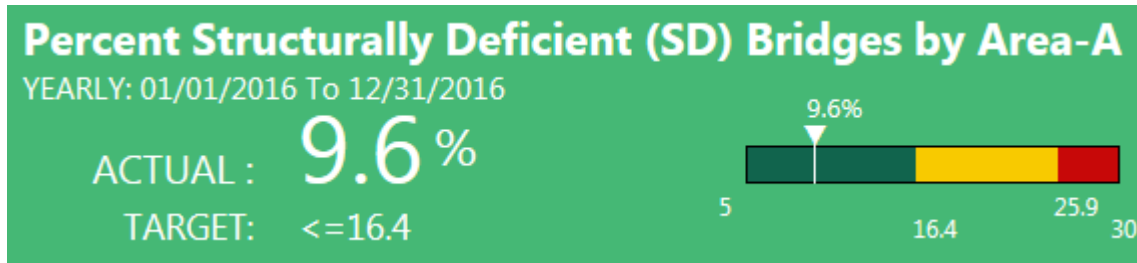
- Crash detection by source
- Detection times by source
- Crash and congestion data by times
- High congestion crashes
- TMC staff time

TSMO Challenges: Funding

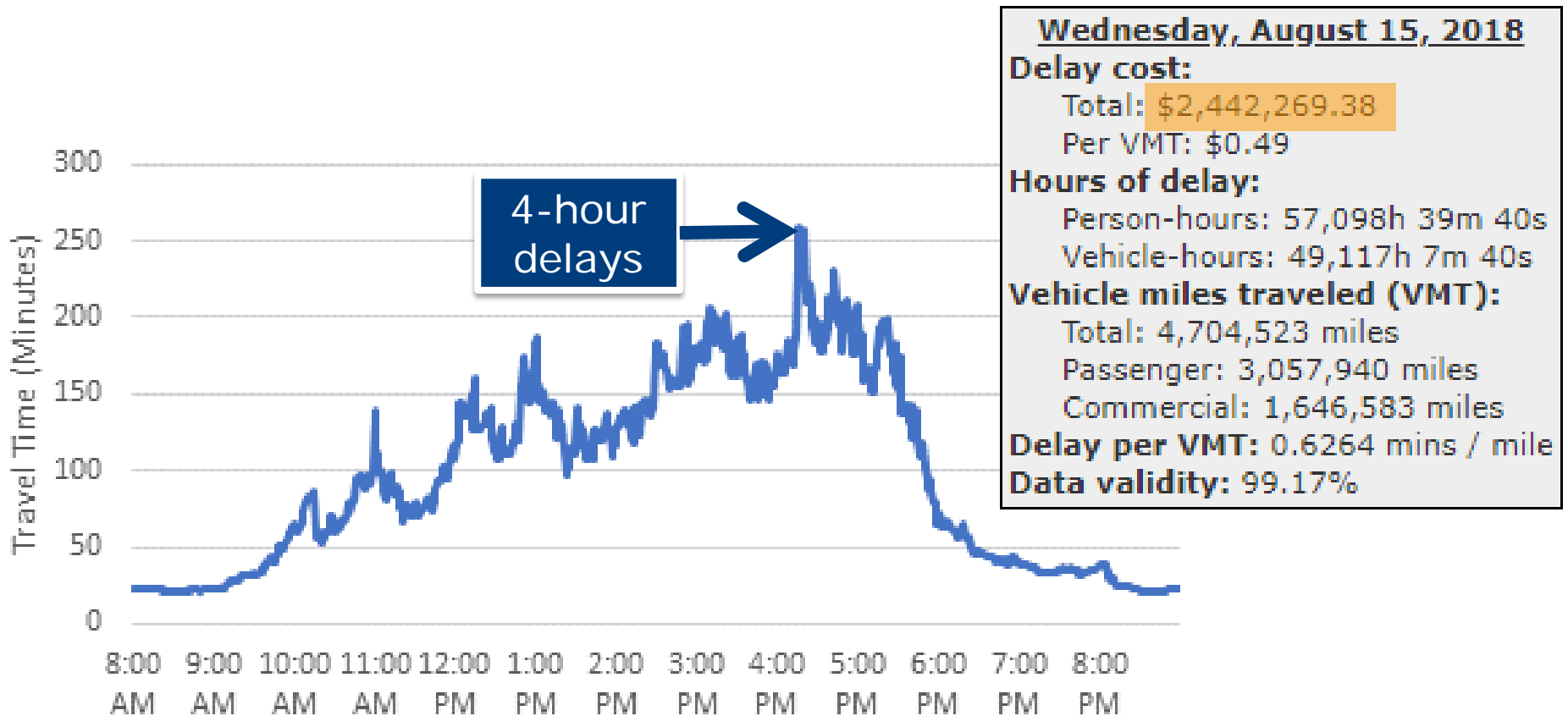


Performance Scorecard

- Contract Mgmt (7)
- Pavement (6)
- Bridge (5)
- Safety (5)
- Planning (2)
- QA/Testing (2)
- Permitting (1)
- **TSMO (0)**

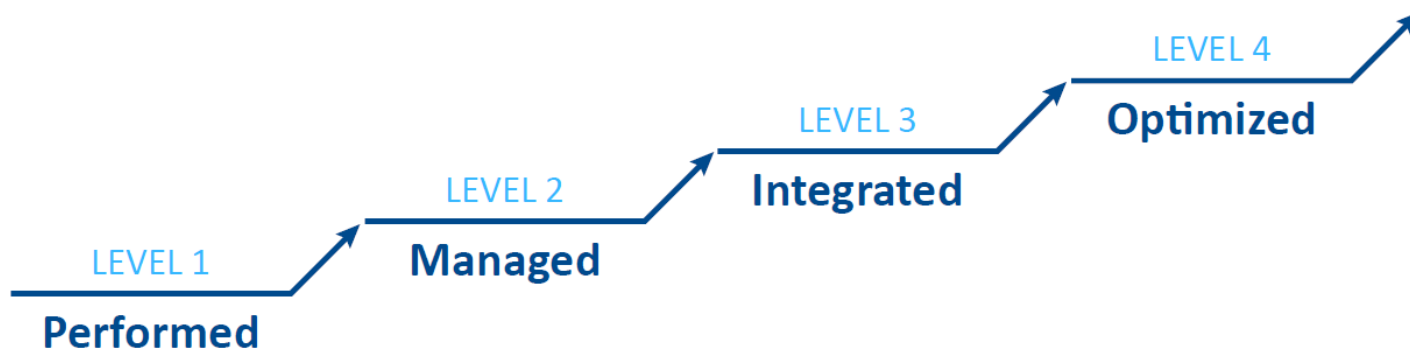


TSMO Challenges: Work Zone Delay

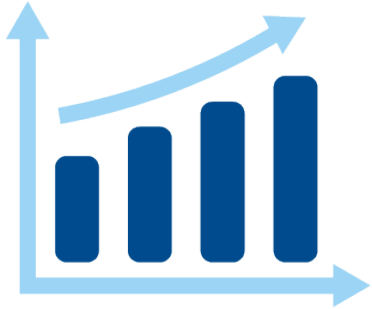


Early TSMO Results

- Funding for antiquated ITS devices
- Creation of TSMO Capital Grant
- Consideration for TSMO/ITS as part of the Interstate TIP
- Leadership support for TSMO Guidebook series
- Developing plan for future fiber deployment
- Working to integrate TSMO into the planning process
- District and planning partner support for TSMO
- Interest in using performance data to make decisions
- Secretary on ITS America Board



Thank You



TSMO Vision

A less congested, more reliable network.

Douglas Tomlinson, P.E.

PA Department of Transportation

717.787.3657

dtomlinson@pa.gov

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