

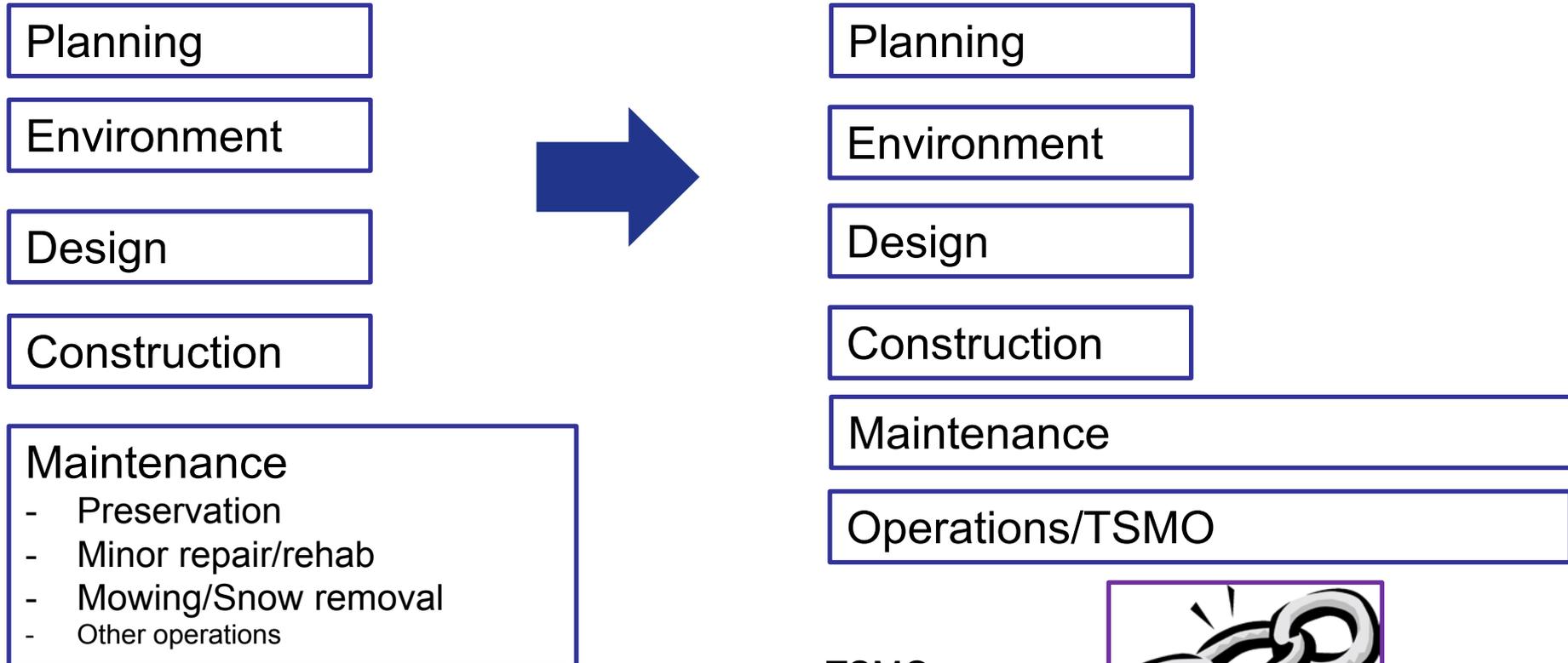
SHRP2 Reliability Implementation

Tracy Scriba, FHWA
SHRP2 and TSMO Workshop
8/5/16



Evolution

Growing recognition of the key role of Operations and Active Management



TSMO as a
“missing link”



Supporting the Evolution to Advance Operations/TSMO



- Culture change
- Organizational capabilities
 - Structures
 - Staff
- Decisionmaking that includes operations/reliability
 - Business processes
 - Analytical tools
 - Performance measures
- More collaboration with partners
 - Data
 - EMS
 - Public and private sector

What is SHRP2?

- Nationally-coordinated program to advance surface transportation
 - Research
 - Develop - tools, technologies, data sets, approaches
 - Implement
- Addresses 4 areas
 - Safety, Renewal, Capacity, and Reliability
 - Numerous projects in each area
- Jointly led by FHWA, TRB, AASHTO

Goal: Save lives. Save money. Save time.



SHRP2 Reliability Solutions to Advance TSM&O

1. Creating strong **organizational capabilities** for reliability and TSM&O
2. Providing tools to support **measurement, analysis, and effective decision-making** that considers TSM&O
3. Advancing TSM&O strategies/practices to better **manage the transportation system**
4. Transfer knowledge to share technical resources and peer experience to **develop TSM&O expertise**



*SHRP2 Reliability
Focus Area*

Implementation Snapshot

Product	Implementation
Traffic Incident Management Training (L12/32)	Nationwide deployment
Organizational TSMO Capability Assessments (L01/06)	IAP Round 1
CEO Outreach on Operations & Reliability (L31)	Available nationwide
Enhanced Knowledge Transfer System (L17)	Nationwide deployment
Reliability Data Archive (L13A)	Available nationwide
Reliability Data & Analysis Tools (L02/05/07/08/C11)	IAP Round 4 IAP Round 7
Reliability in Simulation & Planning Models (L04)	Limited pilots, IAP Round 7
Communicating Reliability Traveler Info (L14)	Limited pilots, guidance
Business processes/e-Tool to improve reliability (L01/34)	Available nationwide
Regional Operations Forums (L36)	Nationwide deployment IAP Round 7
Work Zone Impact Estimation/Coordination Tool (R11)	IAP Round 6
Freight Data and Modeling (C20)	IAP Round 3

Most Used Reliability Products to date



- TIM Responder Training – 200,000 in 50 States, DC, Puerto Rico
- Knowledge Transfer System/NOC CoE – 1,700+ users/month
- Regional Operations Forum – 49 States, DC, Puerto Rico
- CMM Assessment Tool for TSMO – 50 sites in 28 States
- TSMO Program Area CMMs – 28 sites in 16 States

*Sites can be States, MPOs, DOT districts, or regions/metro areas

Most Active States



- Florida
- California
- Maryland
- Tennessee
- Washington
- Arizona/Maricopa County
- Colorado

1. Implementation Highlights - Organizing for Reliability/CMM Tools

- **Widespread interest in CMM – 50 sites**
 - CMM assessments, action plans, carrying out plans
- **Results of workshops leading to:**
 - TSMO program plans
 - Updates to ITS architectures
 - Business case materials
 - TSMO performance measures plan/program
 - Workforce development/training
 - Restructuring DOTs for TSMO
- **Findings are being shared**
 - Peer exchanges between States
 - Virtual peer exchanges
 - Planning for a few more peer exchanges in coming year

1. Implementation Highlights - Organizing for Reliability/CMM Tools

- **Expanding the CMM approach to other areas (L34B)**
 - Traffic management (ICM) – 8 sites
 - Work zones – 4 sites
 - TIM – 5 sites
 - Road weather – 3 sites
 - Planned special events – 4 sites
 - Traffic signals – 4 sites
 - Others under consideration (Asset Management, CV/V2I)
- **Incorporating Reliability in the CMP**
 - Primer developed, 12 workshops held
 - Discussing follow-up recommendations

1. Upcoming L01/L06 Activities

	2016	2017
Main IAP site implementation support (L06)	X	
Re-assessment and interviews	X	X
Final report on L06 sites		X
Continue providing CMM assessments	X	X
Peer exchanges	X	X
Continue providing other CMMs (L34B)	X	X
Business process primer (L01)	X	
Business process workshops w/e-tool (L01/34)	X	X

1. Upcoming L01/L06 Activities

	2016	2017
Guidance on developing the business case for institutional change	X	X
Summits	X	X
Applying the CMM to V2I	X	X
TSMO program planning roundtable	X	
TSMO outreach and marketing	X	X
Workforce Summit follow-up	X	X

2 & 3. Implementation Highlights – Lots of Pilots

Tools, Data, Traveler Info

- Reliability Data & Analysis Tools - 8 pilots + 13 lead adopter
- Reliability in Operations/Planning Models – 2 pilots + 5 pilots
- Freight Demand Modeling & Data Improvement – 11 pilots
- WISE: Work zone Impacts & Strategies Estimator – 4 pilots
- Communicating Reliability Traveler Information – 3 pilots

Findings to date

- Data challenges
- Concept of Reliability not clearly understood
- Tool refinement needs

2. Upcoming Activities from Pilots

- Case studies/fact sheets on pilot results
- Reliability data guide
- Primer on Reliability
- Guidance and workshops/peer exchange
- Assess need for product refinements

3. Implementation Highlights – TIM Responder Training

- As of July 25, 2016



Train-the-Trainer Sessions

- 244 sessions with 8,250 participants



In-Person Responder Training

- 7,465 sessions with 178,905 participants



Web-Based Training (WBT)

- 10,876 participants



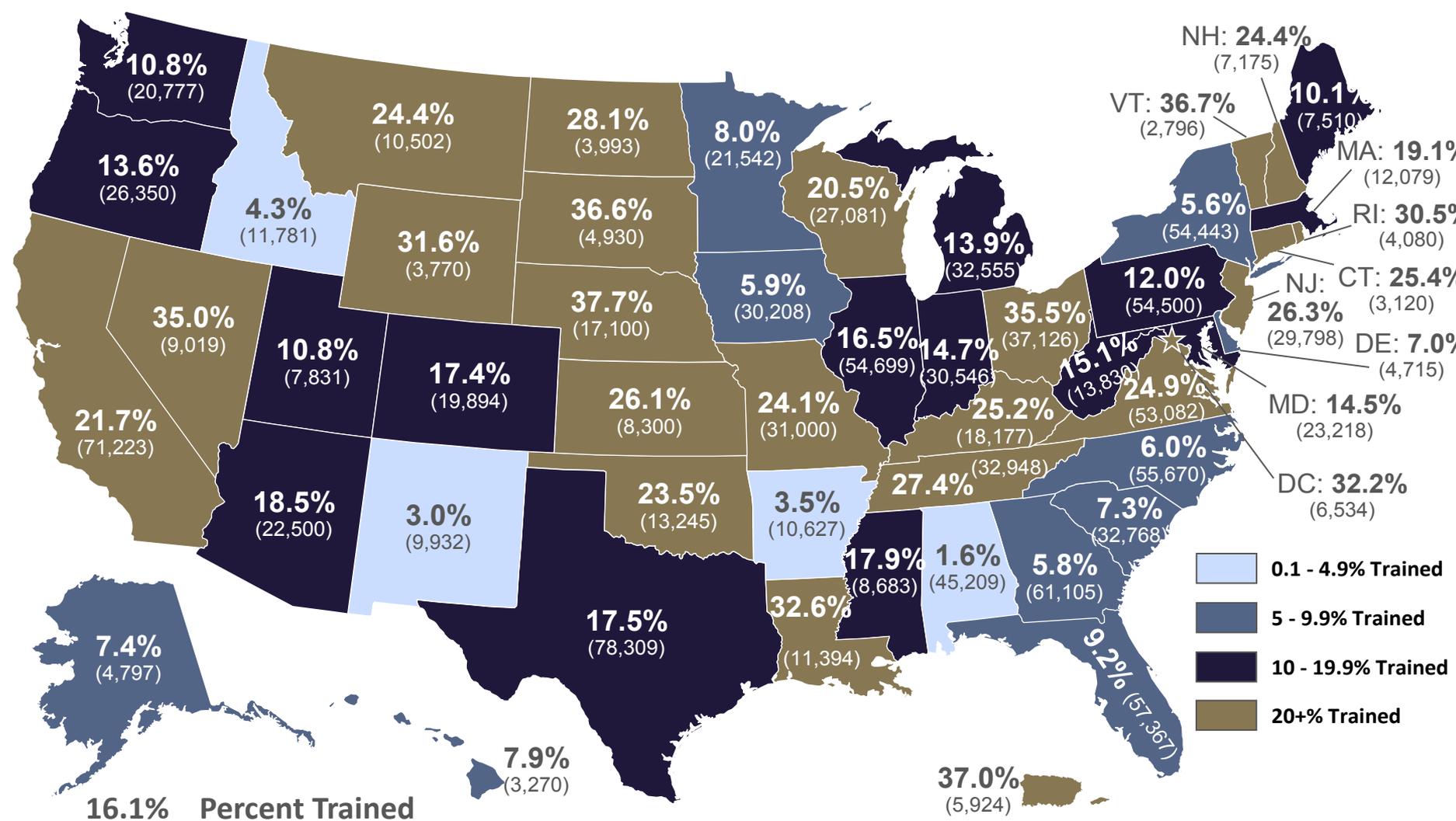
Total Trained: 198,031

* 200,000 surpassed at start of August

3. TIM Training Program Implementation Progress

Percent Trained - As of July 25, 2016

Goal of 20%



16.1% Percent Trained
 (1,229,032) Total Responders To Be Trained

4. Implementation Highlights – Knowledge Transfer

Regional Operations Forums (L36)

- Deployed nationwide – 4 regional + 4 sub-regional held in 2015-16
- Created shortened version and with CMM
- Follow-up regional peer exchanges (NOCoE)
- Round 7 IAP offering – 6 sites involving 10 States
- Sustainability assessment
- Support NOCoE Workforce Summit outcomes

National Operations Center of Excellence

- Enhanced website
- Ongoing collaboration



Observations - Successes



- Products and emphasis are making a difference
 - “Tipping point”
 - TSMO Program development
 - Momentum/efforts to advance capabilities, modify processes, change culture
- Value of peer exchange
- Value of partnerships

Observations – Common Challenges



- Making the business case for TMSO
- Justifying funding
- Staffing (amount, turnover, development/training)
- Changing senior leadership/turnover
- Non-supportive business processes

Other Upcoming SHRP2/TSMO Efforts



- Technical assistance on TSMO funding with Federal-Aid
- Compilation/update of TSMO stats
- Explore TSMO training alternatives/partnerships
- Identifying long term home for products
- Institutionalization/sustainability of deployment
- Evaluation (outputs, outcomes, impacts)
- Lead implementer site visits
- Share success stories/lessons learned

More Information

- FHWA Office of Operations
www.ops.fhwa.dot.gov/
- Go SHRP2
www.fhwa.dot.gov/goSHRP2
- SHRP2 on NOCoE
<http://www.transportationops.org/shrp2-products-and-implementation>
- SHRP2 Milestones - quarterly newsletter
- SHRP2 Moving Us Forward - annual report of implementation highlights

