

Organizing for Reliability Capability Maturity Model Self Assessment

presented to

ITS in the Heartland

presented by

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CAMBRIDGE
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L01/L06:

Improving Transportation Systems Management and Operations (TSM&O) and fostering more reliable travel times through business and organizational solutions

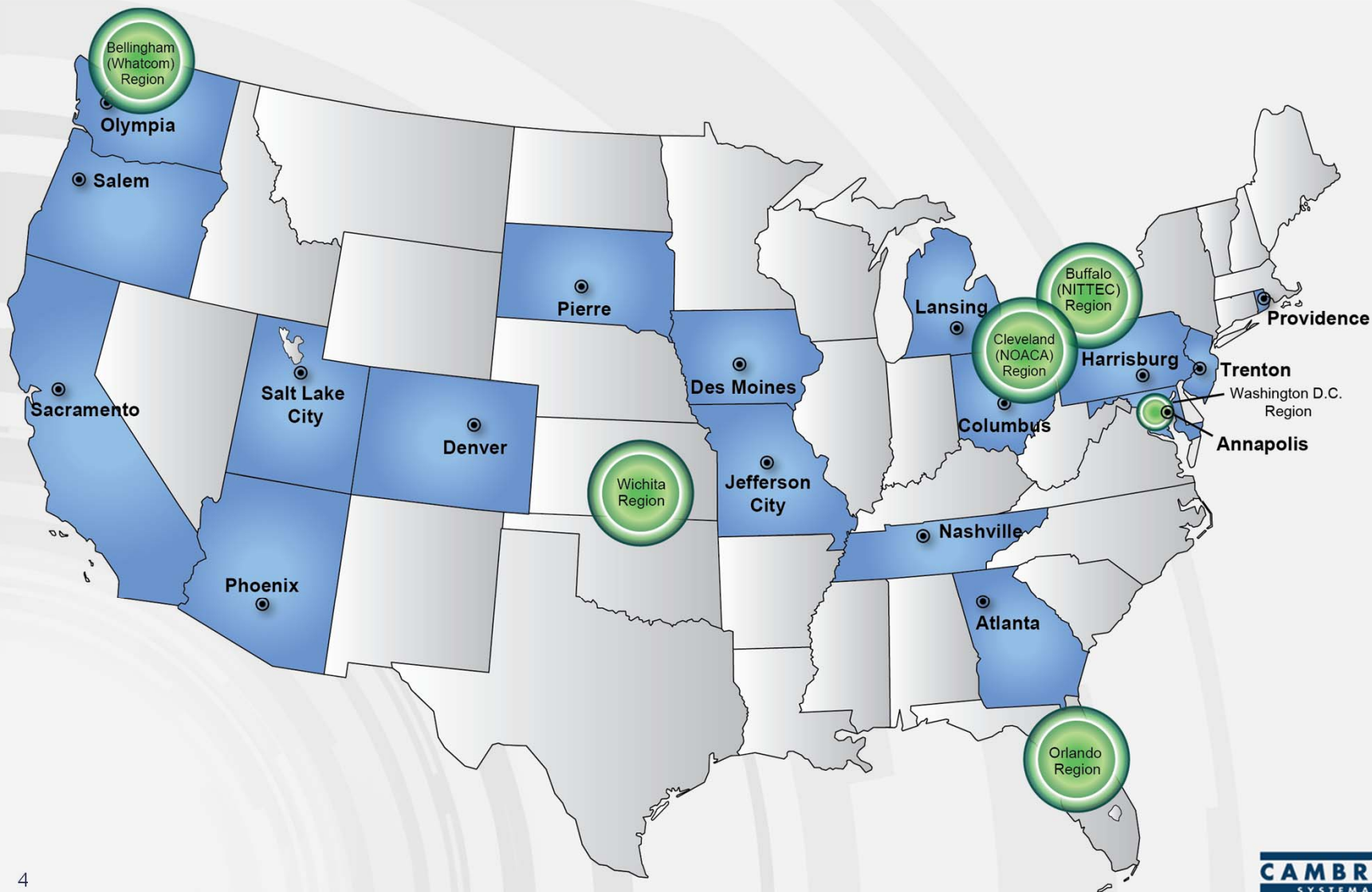
- A self-assessment tool to help agencies improve system management and operations.
- Implementation Assistance Program



Research/Validation of CMM concept

- A national program for state DOTs sponsored by FHWA – 35 DOTs to date
- Focus on “institutional” capabilities: key processes, organization, collaboration (not specific strategies or project design)
- Based on research about what is needed to improve capabilities of DOTs for more effective TSM&O activities – in real time/day-to-day
- For use by decision-makers regarding management of the system

Workshop locations to date



FHWA Task Work

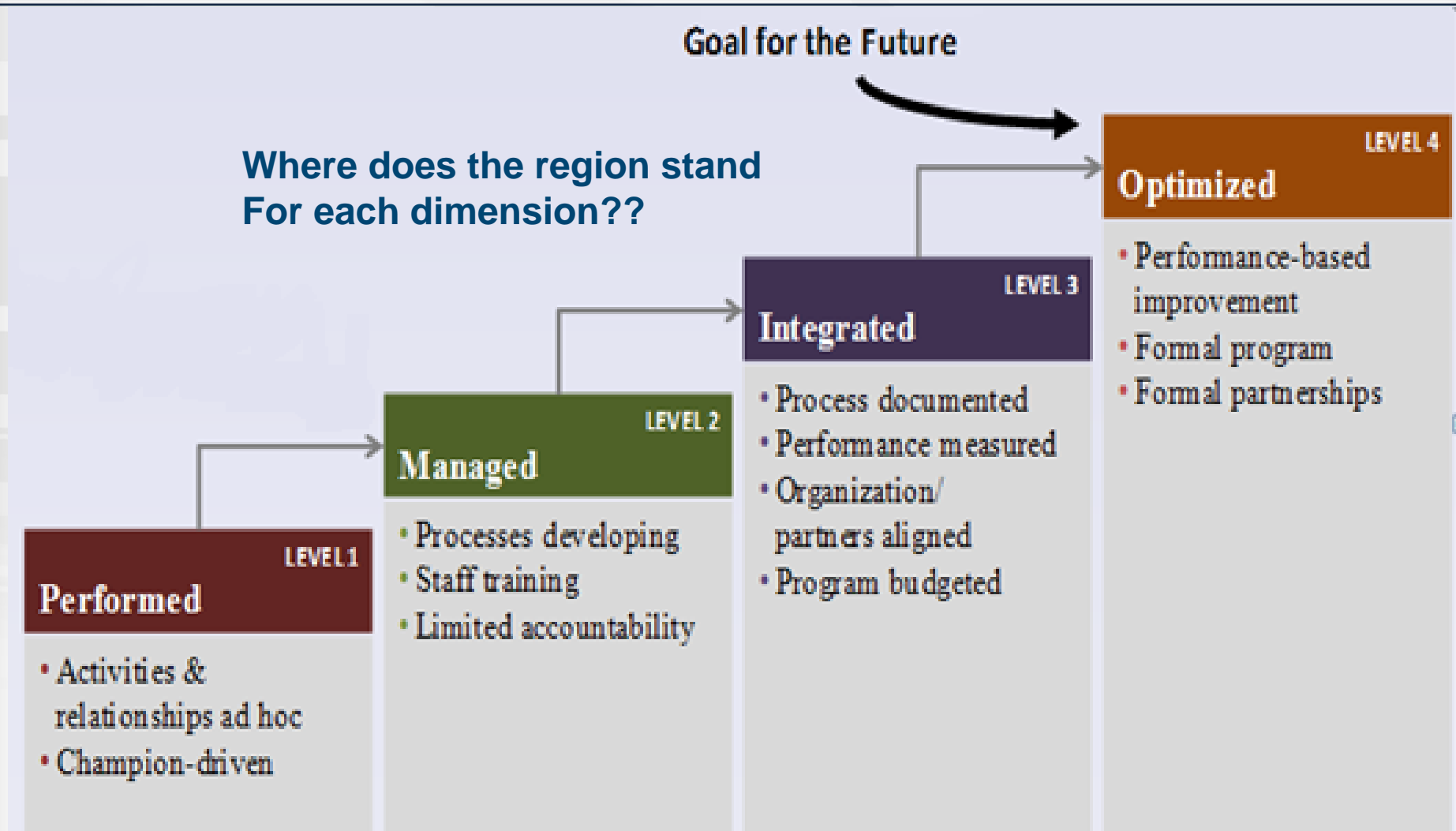
● Basic Activity:

- » Meeting with Senior Leadership
- » A self-assessment workshop among key staff
- » Development of Implementation Plan
 - Co-developed by Workshop Team and DOT Core Team
 - \$200k assistance to each location

Research: Preconditions to Effectiveness (The “Dimensions” of Capability)

- Business Processes (Plan/Prog/Proj dev) – formal, multi-year, practical, resourced
- Systems & Technology – consistent, standardized, updated
- Performance Measurement – used to manage in real time
- Culture – top management/policy-maker support/commitment
- Organization – clear roles, accountability, core capacities
- 6 ● Collaboration – formal “partner” relationships –

The “Levels” of Capability (each dimension)



Putting it together: Capability Self-assessment

Capability Level Self Evaluation Structure

DIMENSIONS	LEVEL 1 PERFORMED	LEVEL 2 MANAGED	LEVEL 3 INTEGRATED	LEVEL 4 OPTIMIZING
Business Processes		X		
Systems & Technology			X	
Performance Measurement	X			
Culture			X	
Organization/ staffing		X		
Collaboration			X	

Lowest level is constraint

The Rules of Improving TSM&O Capability

- The objective is *continuous improvement*
- All (6) dimensions are essential and synergistic
- Dimension at the lowest level is the constraint
- Levels of capability can not be skipped

Workshop Example Template

DIMENSION: Business Processes (Planning and Programming)

Strengths

Weaknesses

Level Criteria	LEVEL 1 – PERFORMED	LEVEL 2 – MANAGED	LEVEL 3 – INTEGRATED	LEVEL 4 – OPTIMIZING
	Each jurisdiction doing its own thing according to individual priorities and capabilities	Consensus regional approach developed regarding TSM&O goals, deficiencies, B/C, networks, strategies and common priorities	Regional program integrated into jurisdictions' overall multimodal transportation plans with related staged program	TSM&O integrated into jurisdictions' multi-sectoral plans and programs, based on a formal, continuing planning processes
Consensus				

Actions to Advance to the Next Level

● Workshop Outputs

» Actions to advance to the next level

● Implementation Plan

» Defines plan to accomplish each action

- Lead and support staff
- Level of effort to accomplish
- Sub-steps to accomplish
- Technical Issues
- Key risks
- Resource requirements
- FHWA support resources and contact
- Start and end date
- Measures of success

Today's Session

- ① Here from three ITS Heartland States that have completed the workshop:
 - » Kansas
 - » Iowa
 - » Missouri