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
- Collaboration – formal “partner” relationships – public/private
The “Levels” of Capability (each dimension)

Where does the region stand
For each dimension??
## Putting it together: Capability Self-assessment

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>LEVEL 1 PERFORMED</th>
<th>LEVEL 2 MANAGED</th>
<th>LEVEL 3 INTEGRATED</th>
<th>LEVEL 4 OPTIMIZING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Processes</td>
<td></td>
<td>✗</td>
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<tr>
<td>Systems &amp; Technology</td>
<td></td>
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<td>Performance Measurement</td>
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<tr>
<td>Culture</td>
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<tr>
<td>Organization/staffing</td>
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<td>✗</td>
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<tr>
<td>Collaboration</td>
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<td>✗</td>
</tr>
</tbody>
</table>

- **Lowest level is constraint**

8
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)

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

### 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

Here from three ITS Heartland States that have completed the workshop:

» Kansas
» Iowa
» Missouri