



A Capability Maturity Assessment

Improving Transportation Systems Management & Operations (TSM&O)
June 4, 2015
Implementation Plan Development



Capability Maturity Model Assessment Report Summary

- **Business Processes – Performed/ad hoc (1)**
 - **Systems & Technology**
 - **Other agencies – Performed/ad hoc (1)**
 - **TxDOT and City of Houston – Managed (2)**
 - **Performance Measurement – Incorporated (3)**
 - **Culture – Managed w/ some Incorporated (2.5)**
 - **Organization & Staffing managed w/ some Incorporated**
 - **Harris County (2.5)**
 - **TxDOT and City of Houston Incorporated (3)**
 - **Other Agencies (1)**
 - **Collaboration – Performed/ad hoc (1)**
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Take-A-ways

- **Business Processes - 1.0**
 - **No clear direction on TSMO project selection**
 - **no overall TSMO vision or plan**
 - **the region is not proactive in identifying specific operations strategies**
 - **Projects generally drive the Regional Plan**
 - **Even though day-to-day operations among stakeholders work well – it’s still highly ad-hoc**
 - **Fragmented use of analysis tools to evaluate and /or select projects and strategies**

- **Systems and Technology - TxDOT and City of Houston – 2.0; Other agencies – 1.0**
 - **Regional ITS Architecture is outdated and viewed as not having any value note: electronic files updated within turbo and available**
 - **Architecture is updated on an ad-hoc basis for major projects**
 - **Challenges with making the region’s architecture and standards compatible with the State-approved systems architecture and freeway management software note: 940.11 pushes some to use local funds**
 - **Systems Engineering documentation is ad-hoc**
 - **Common practice – standards are guiding requirements, not the other way around when federal funds are involved.**
 - **HQ’s (Austin’s) testing and approval process is not responsive enough to accommodate emerging technologies desired by some local agencies. (and districts)**

- **Performance Measurements 3.0**
 - **In some cases only measuring outputs**
 - **Limited use of PM in planning and investment decisions**
 - **Concerned about not being able to maintain measures once attained**
 - **Mobility Report not written for the internal audience**

- **Culture 2.5**
 - **Need to do a better job with telling our operations story ... *“Making the business case for TSMO”***
 - **Definition of Operations unclear in the region**
 - **Leadership in local agencies may not understand fully what is meant by operational strategies**
 - **Inconsistency with keeping the policy makers in the loop. Be able to keep the message current**
 - **Champions may exist on one type of strategy (incident management), but not on some of the other strategies**
 - **Focus to manage exceptional events (i.e. major sporting event, weather event, etc.) routine incidents and congestion does not engage leadership**

- **Organization & Staffing TxDOT and City of Houston – 3.0; Harris County - 2.5; Other agencies – 1.0;**
 - **Perception of TRANSTAR vs everyone else**
 - **Not all agencies have a sustainable staffing plan**
 - **Some mentoring programs and plans still exist**
 - **Smaller agencies need an understanding of the skill sets needed in order to properly hire for TSMO**
 - **Field staff limited therefore reactive rather than proactive**

- **Collaboration - 1.0**
 - **No incident management plans for a range of conditions**
 - **Stronger working relationships needed:**
 - **In Incident Management**
 - **Among Transportation Agencies**
 - **Method of collaboration is via the police department**
 - **Agency roles change depending on champions**

	Dimension: Business Processes (Planning and Programming)
Action Description	Operations Task Force to establish a framework suitable for Regional TSMO related planning and programming activities.
Product(s) and Desired Outcome(s)	<ul style="list-style-type: none"> • Expansion of the incident management program • A Communications Master Plan
Tasks/ Subtask	
Lead	
Support Staff	
Staff Level of Effort (person days)	
Senior Leadership Support Actions	
Collaboration Actions and Requirements	
Technical Issues	
Key Issues	
Key Risks	
Resource Requirements	
FHWA Resources and Contact(s)	<ul style="list-style-type: none"> • Steve Ratke (512) 536-5924 stephen.ratke@dot.gov • Daniel Grate (404) 562-3912 daniel.grate@dot.gov • Ralph Volpe (404) 562-3637 ralph.volpe@dot.gov • Rick Denney (410) 962-4796 richard.denney@dot.gov
Start Date	
End Date	
Succession/Completion Indicator	

	Dimension: Systems & Technology
Action Description	<ul style="list-style-type: none"> • Develop a set of requirements compatible with existing infrastructure • Systems Engineering templates for common projects • Thorough review of the ITS Architecture
Product(s) and Desired Outcome(s)	Tools, procedures, and trainings
Tasks/ Subtask	
Lead	
Support Staff	
Staff Level of Effort (person days)	
Senior Leadership Support Actions	
Collaboration Actions and Requirements	
Technical Issues	
Key Issues	
Key Risks	
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	Dimension: Performance Measures
Action Description	Continue developing and maintaining existing measures and expand into other areas where applicable.
Product(s) and Desired Outcome(s)	
Tasks/ Subtask	
Lead	
Support Staff	
Staff Level of Effort (person days)	
Senior Leadership Support Actions	
Collaboration Actions and Requirements	
Technical Issues	
Key Issues	
Key Risks	
Resource Requirements	
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	Dimension: Culture
Action Description	Tell our Operations Story to Sr. Leadership
Product(s) and Desired Outcome(s)	<ul style="list-style-type: none"> • Provide a presentation promoting Regional TSMO and Strategies to regional Sr. Level Stakeholders from FHWA Sr. Leadership • Regional Sr. Leadership participation in the FHWA Operations Academy
Tasks/ Subtask	
Lead	
Support Staff	
Staff Level of Effort (person days)	
Senior Leadership Support Actions	
Collaboration Actions and Requirements	
Technical Issues	
Key Issues	
Key Risks	
Resource Requirements	
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	Dimension: Organizations & Staffing
Action Description	Continue what we are doing however develop staffing plans to sustain the operations program
Product(s) and Desired Outcome(s)	<ul style="list-style-type: none"> • TxDOT and City of Houston to share their succession plan and mentoring plan model with other smaller agencies for review and possible implementation • Reach out to LTAP as a resource to provide industry examples of succession and mentoring plans.
Tasks/ Subtask	
Lead	
Support Staff	
Staff Level of Effort (person days)	
Senior Leadership Support Actions	
Collaboration Actions and Requirements	
Technical Issues	
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	Dimension: Collaboration
Action Description	<ul style="list-style-type: none"> • Develop the expanded Incident Management Program to reach the region • Increase data sharing capabilities between agencies • Outreach to agencies whom are not attending incident management meeting, but should (i.e. fire)
Product(s) and Desired Outcome(s)	<ul style="list-style-type: none"> • Monthly SHRP2 Incident Management Training • Increase data sharing capabilities between agencies
Tasks/ Subtask	
Lead	
Support Staff	
Staff Level of Effort (person days)	
Senior Leadership Support Actions	
Collaboration Actions and Requirements	
Technical Issues	
Key Issues	
Key Risks	
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