

AASHTO Transportation Asset Management Guide *A Focus on Implementation*

Presented at the
TRB 9th National Conference
on Transportation Asset Management
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Louisiana DOTD
April 16, 1012

Asset Management Guide – Volume 2

“A Focus on Implementation”

- NCHRP 08-69A Research Project started in 2008
- Three problem statements recommended by the AASHTO Sub-Committee on Asset Management were approved and combined into one project (\$750K)
- Project Team included 11 state and federal transportation professionals. Consultant Team was composed of AECOM and Spypond Partners
- TAM Guide, Volume 2 was released in January 2011

Panel Members and Support Staff

- Michael Bridges – *LADOTD*
- Brad W. Allen – *NYDOT*
- Adjo A. Amekudzi – *GaTech*
- John H. Daly, III – *Genesse County Road Commission*
- Leonard R. Evans – *ODOT*
- Stephen J. Gaj – *FHWA*
- Rachel Falsetti – *CALTRANS*
- Tracy Larkin Thomason – *Nevada DOT*
- Lacy D. Love – *NCDOT*
- Benjamin T. Orsbon – *SDDOT*
- Jeffrey H. Smith – *Maryland DOT*
- Nanda Srinivasan – *TRB*
- Andrew C. Lemer – *TRB*
- Thomas M. Palmerlee – *TRB*
- Nadarajah Sivaneswaran - *FHWA*

Project NCHRP 08-69A objectives

- Supplement AASHTO's TAM Guide Vol.1 with a second volume that focuses on establishing and executing TAM programs in transportation agencies, with particular attention to highway assets.
- Document the benefits of TAM.
- Provide additional guidance for implementing asset management concepts, principles, performance targets, strategies, tools, analysis methods, data collection, and application of management system information based on the framework presented in Vol. 1.
- Include examples of:
 - Use of tools for evaluating return on investment and improving economic efficiency, resource allocation, and budgeting decisions;
 - Strategies for enhancing communication and information sharing among decision-makers and elected officials; and
 - Ways that ERP systems can effectively support TAM.

Intended audience for TAM Guide

- User groups:
 - Federal Highways Administration
 - State Departments of Transportation
 - Local planning organizations, and transportation practitioners
 - Decision makers
- Other potential users:
 - Consultants
 - Software and tool developers
 - Educators
 - Researchers

The Guide is intended to stimulate strategic thinking about transportation infrastructure

- What do we want to accomplish, and why?
- Do we need to change the current business model to achieve these objectives?
- What resources are available to succeed in this mission?
- How do we measure success?



TAM Business Model – Five Core Questions

- What is the current state of my assets?
- What are my required levels of service and performance delivery?
- Which assets are critical to sustained performance delivery?
- What are my best investment strategies for operations, maintenance, replacements and improvement?
- What is my best long-term funding strategy?

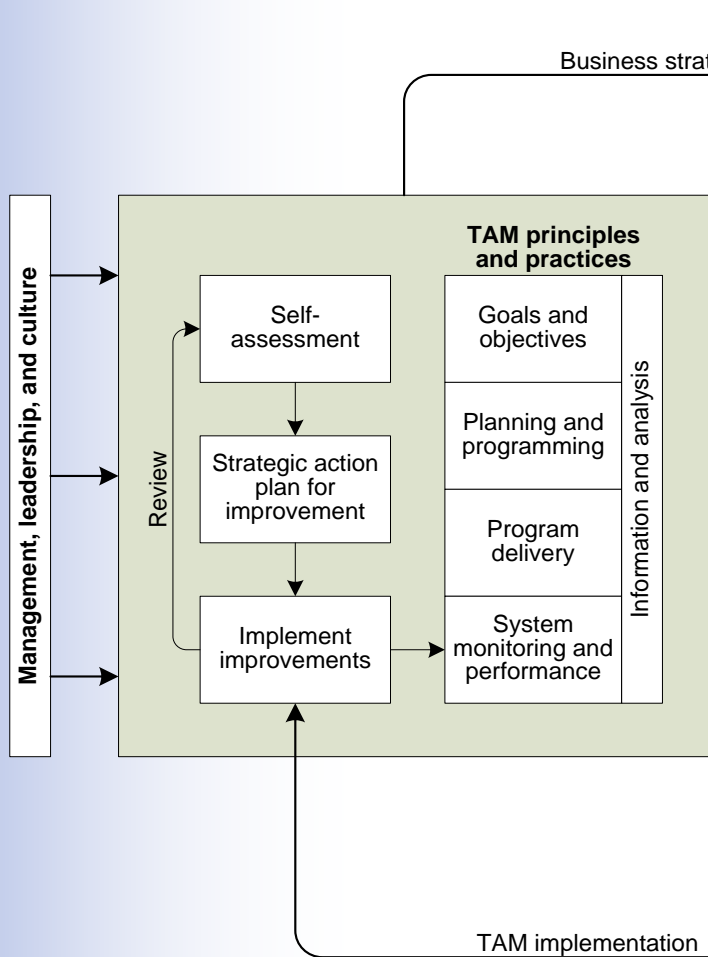
How can the Guide be used?

- As a modular, resource document
- As a sequence of implementation steps
- For knowledge transfer and bridging the gaps

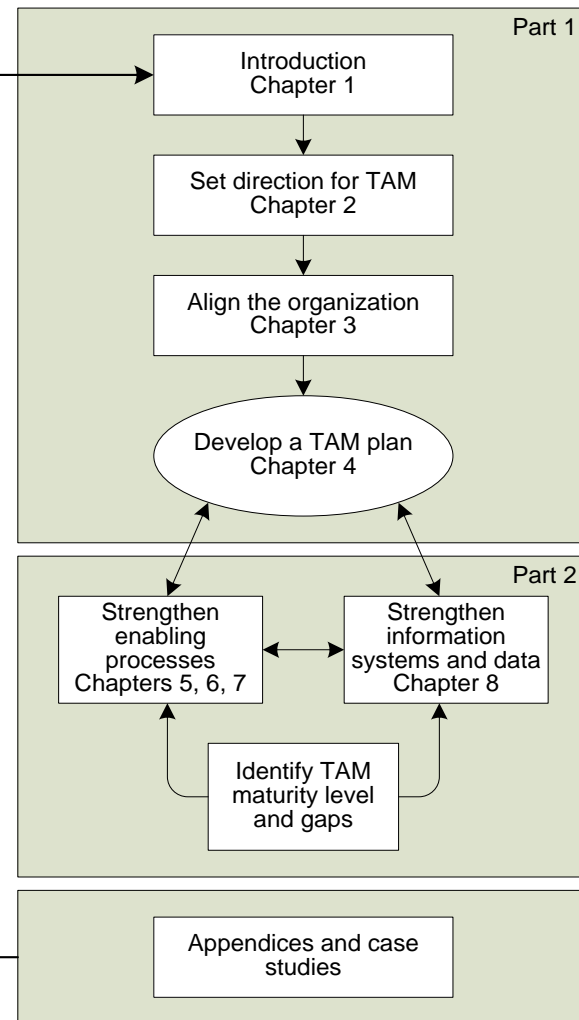


AASHTO TAM Guide Volumes 1 and 2 are interlinked

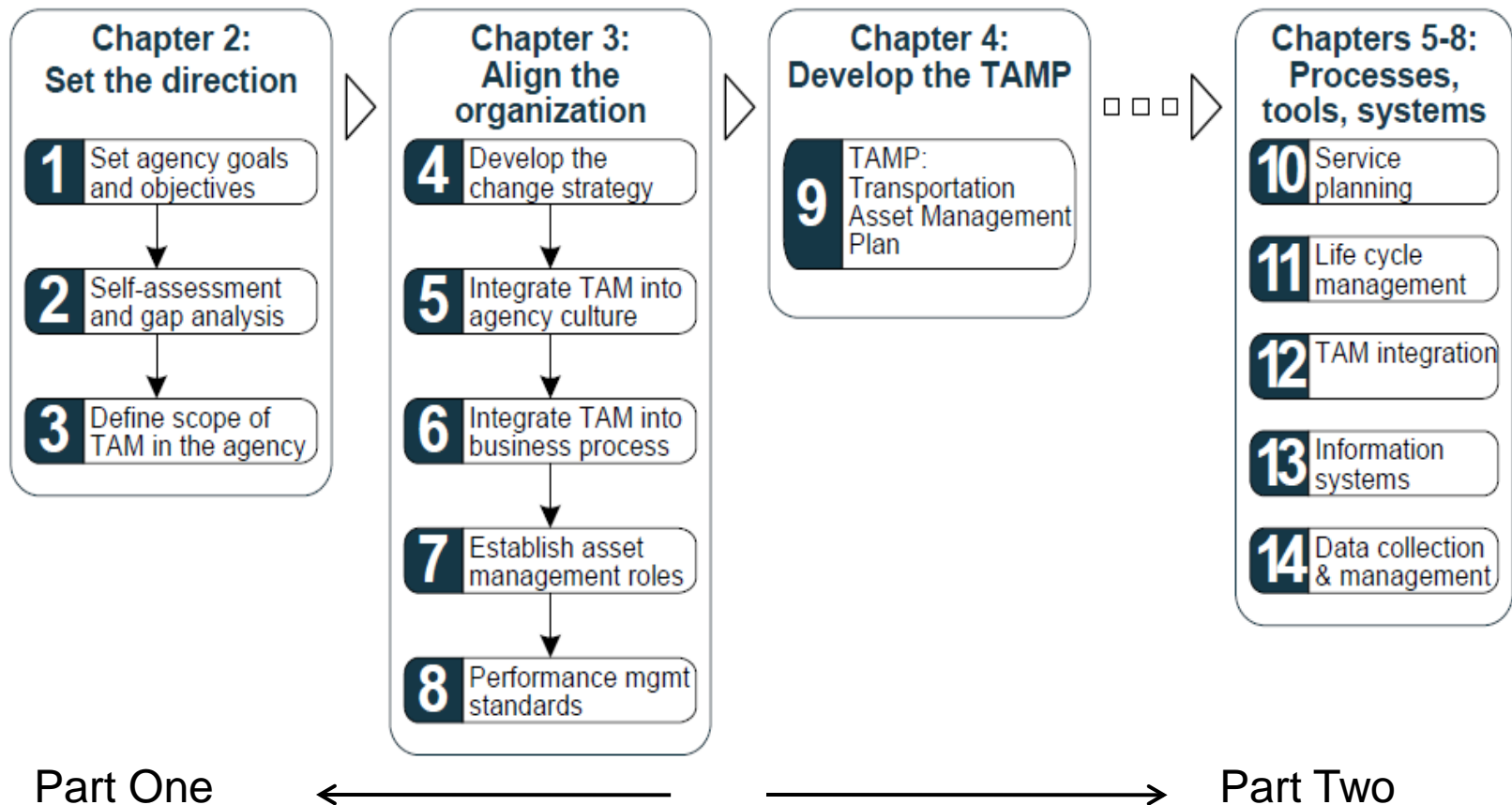
TAM Guide Volume I



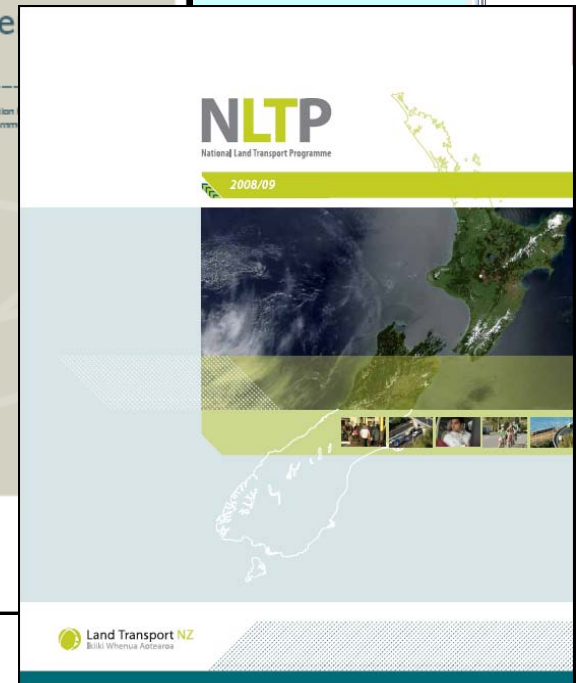
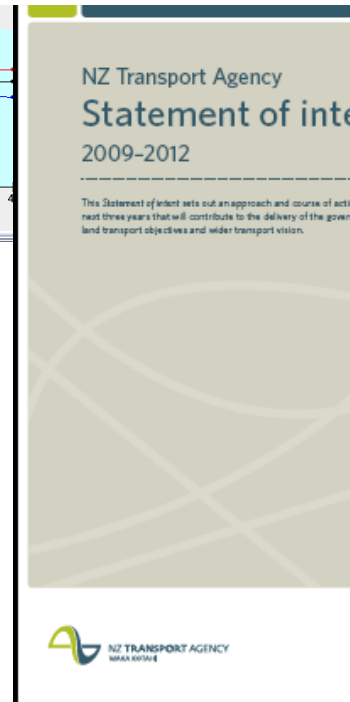
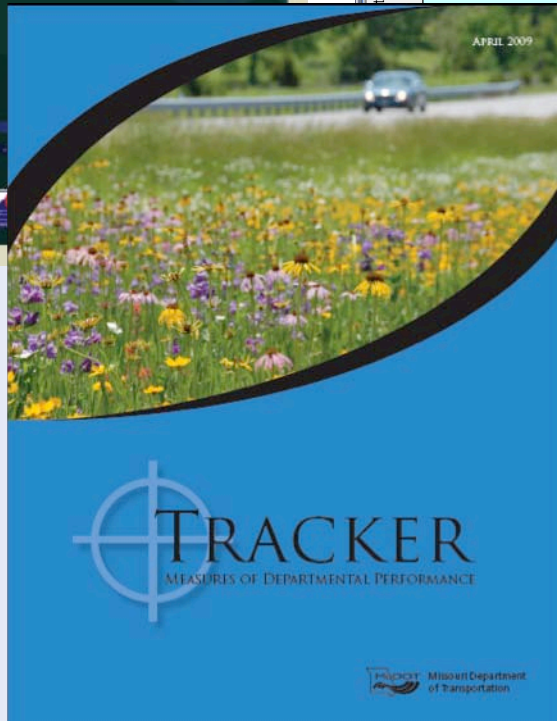
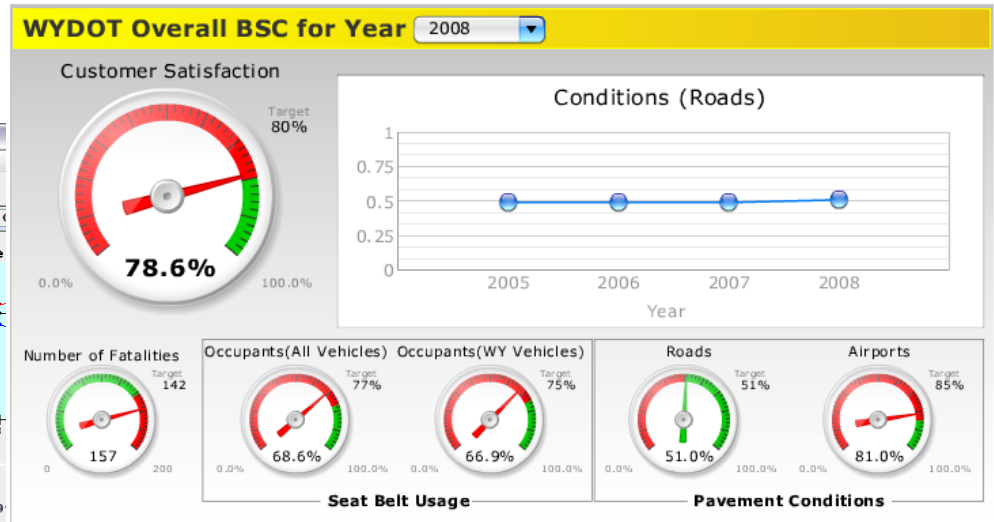
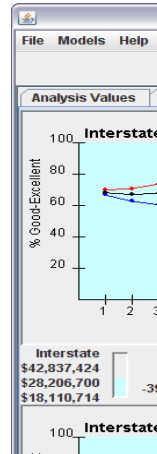
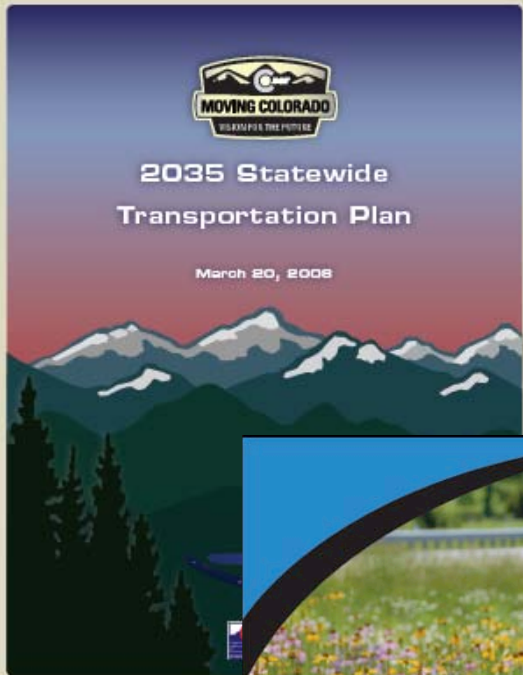
TAM Guide Volume II:
Focus on Implementation



TAM Guide 2 road map – 14 steps to implementation ...



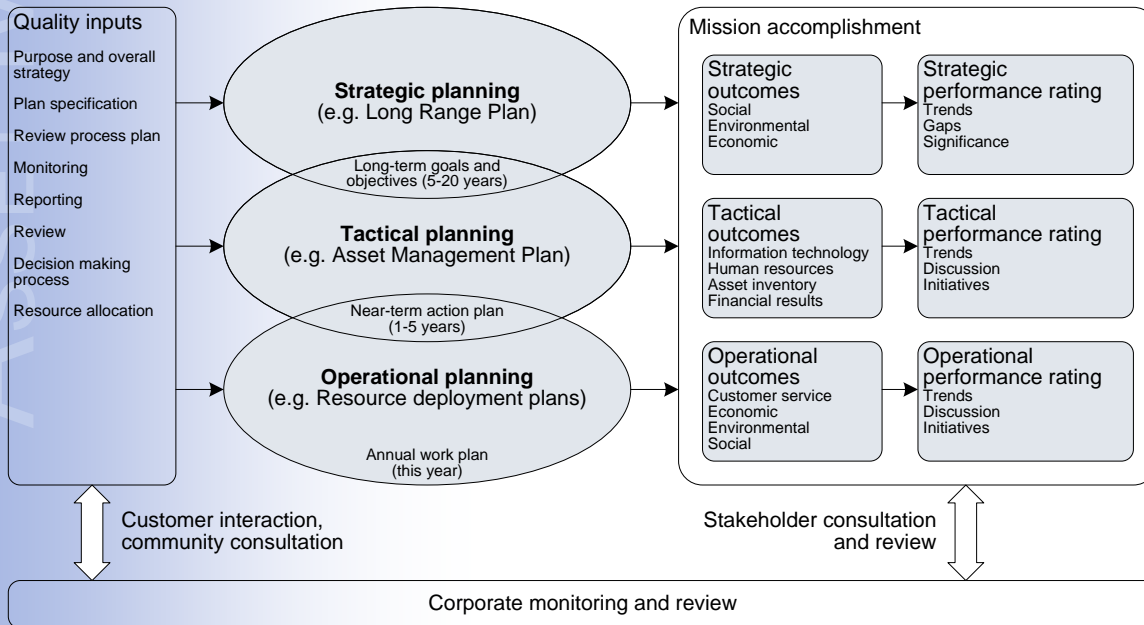
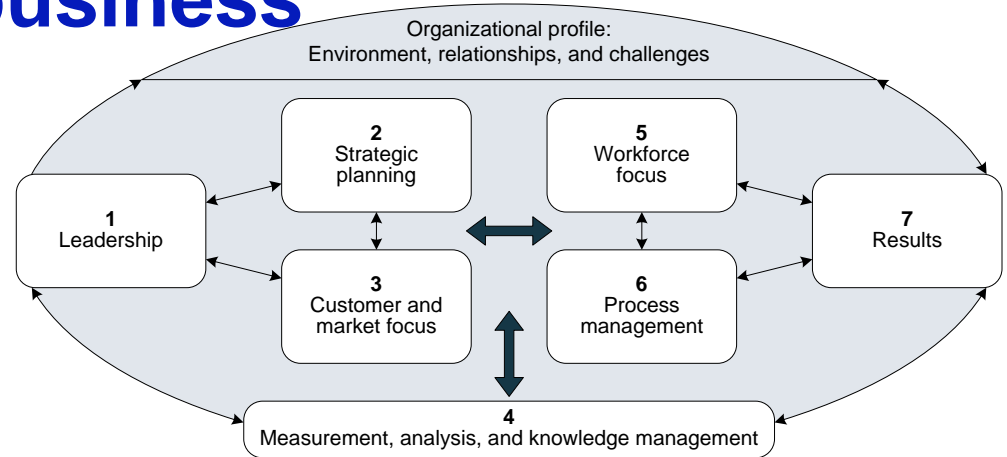
... plus case studies



The TAM Guide will assist agencies meet the challenges

- Greater accountability to the public and funding agencies.
- Maximizing use of resources within a highly constrained funding environment.
- Linking investment levels to infrastructure condition and transportation system performance.
- Preserving assets and improving safety in the face of growing impacts and costs of asset deterioration.
- Public expectations for more sustainable transportation solutions.

TAM is not a part of the business, it is the business



Surface Transportation Authorization Act is coming

- Achieve national objectives
- Establish local transportation plans
- Improve project delivery
- Greater transparency, accountability, oversight, and performance measures



COMMITTEE ON TRANSPORTATION
AND INFRASTRUCTURE

THE SURFACE TRANSPORTATION AUTHORIZATION ACT OF 2009

*A BLUEPRINT FOR INVESTMENT AND REFORM
EXECUTIVE SUMMARY*

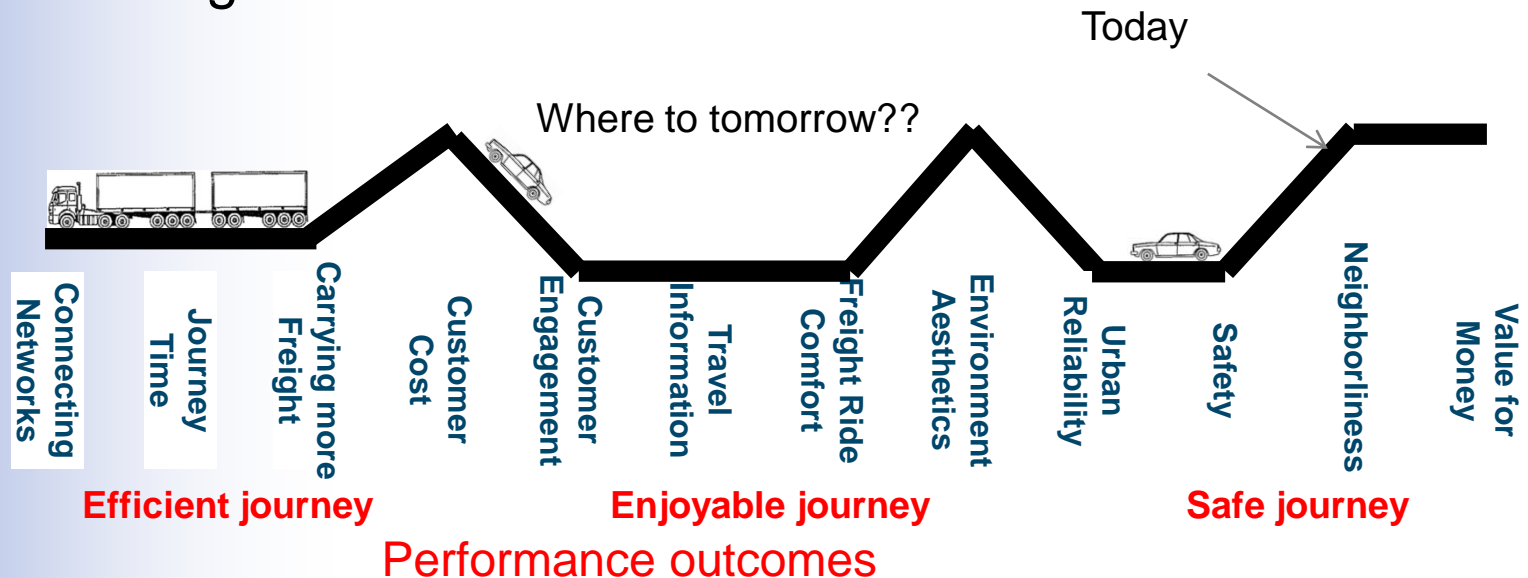
Presented by

*Chairman James L. Oberstar, Ranking Member John L. Mica,
Chairman Peter A. DeFazio, and Ranking Member John J. Duncan, Jr.*

June 18, 2009

TAM Guide shows how to link outcomes to levels of service

- A “bumpy road”?
- What mix do our customers want?
- What are they willing to pay for?
- What do we need to deliver to achieve them?
- How long will it take?



TAM Guide shows how to tie funding to performance based outcomes

- TAM helps move away from formula based funding allocation to performance based
- TAM ties performance based levels of service to agency objectives
 - Define performance outcomes
 - Set LOS
 - Make program decisions
 - Optimize use of funds to achieve performance objectives
- Measurable outcomes that can be tied to the delivery of annual plans and programs

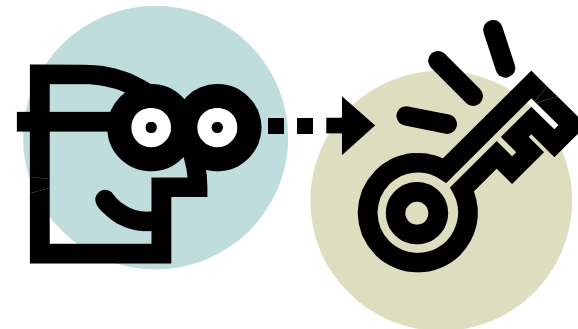
TAM Guide describes economic principles

- TAM recognizes the economic value of assets, economic consumption over time and intergenerational equity considerations.
- TAM targets economic efficiency using economic analysis techniques to optimize asset expenditure over the asset's lifecycle.
- The agency plays a long-term role as “steward” of the assets



TAM Guide shows how to realize the benefits

- TAM enables better use of existing funds – by better quantifying current and future performance and optimizing the agency’s decisions.
- TAM improves agency competitiveness for limited funds – by improving the agency’s credibility, and its knowledge of the long term needs of assets.
- TAM helps build constructive political relationships – by providing hard information that can be readily understood.



Why should a DOT use the TAM Guide?

- Interested in how TAM can be of benefit – but not sure whether it's worthwhile or what to do first.
- Preservation / maintenance financial needs and new investment are poorly linked, organizational issues to address.
- Want to be able to better allocate resources and funds over the long term
- Have a small number of areas to focus on, for example, risk, performance measurement, predictive modelling, but not sure how to best tackle them
- Have effective asset management systems in some areas (e.g. pavement management) – but aware of the need to have systems and data for other assets as well
- Aspire to be best in the class

Further Developments Since the Release of the TAM Guide, Volume 2

- AASHTO Asset Management Sub-Committee assumed the “care and feeding” of the TAM Guide
- FHWA and NHI are working to modify the existing NHI course on TAM and to develop additional course(s) to assist DOTs in incorporating TAM principles into their organizations
- FHWA has been conducting workshops, peer exchanges and webinars
- NCHRP Synthesis 43-01: Use of TAM Principles in State Highway Agencies is currently underway
- FHWA TAM Expert Task Group has been formed

Resources Are Available

- AASHTO Asset Management Subcommittee
<http://www.transportation.org/?siteid=95>
- Asset Management Today website / community of practice:
<http://assetmanagement.transportation.org>
- AASHTO Asset Management Guide Volume 1
<http://downloads.transportation.org/amguide.pdf>
- AASHTO Asset Management Guide Volume 2 (draft):
<http://planning.transportation.org/Pages/Publications.aspx>
- FHWA Office of Asset Management:
<http://www.fhwa.dot.gov/infrastructure/asstmgmt/index.cfm>
- TRB Asset Management Committee
<https://sites.google.com/site/trbcommitteeabc40/>