U.S. Department of Transportation
Federal Highway Administration

Priority, Market-Ready Technologies and Innovations

Asset Management Guide

Problem: Transportation agencies need a new management approach for a new era

Since interstate system construction has been completed, the emphasis has shifted from "build it" to "make it perform." Transportation agencies are under pressure to show improvements in performance and accountability for funding decisions.

Transportation Asset Management (TAM) provides the tools and structure to set goals, identify priorities, improve processes, and measure results to demonstrate improved performance. By focusing on the performance of the transportation system, agencies will be able to increase customer satisfaction.

What is transportation asset management?
TAM is a strategic approach that maximizes the benefits from resources used to operate, expand, and preserve the transportation infrastructure. TAM is not a software or database system, but a decisionmaking process for allocating resources in terms of user benefits. It is a way of thinking that enables agency leadership to view the big picture before deciding how to deploy resources.

How does it work?
TAM relies on tools and information to analyze tradeoffs among investment options. This decisionmaking process recognizes that transportation assets have a user aspect in addition to a physical, or engineering, dimension. The focus is on system performance rather than on how much money is spent or how many miles of roadway are improved.

Putting It in Perspective

- The Nation's highways are valued at more than $1.75 trillion.
- Nearly $130 billion is invested annually to preserve and improve the highway system.
- TAM can help ensure that highway investment results in improved system performance.

Solution: Guide explains TAM techniques

The American Association of State Highway and Transportation Officials (AASHTO) has developed a *Transportation Asset Management Guide* for transportation agency leaders.

The guide explains TAM techniques and offers examples of good practice in four areas—policy development; planning and programming; program delivery; and information, analysis, and performance monitoring. The guide includes a self-assessment tool to help agencies review their asset management practices and identify opportunities for improvement.

How can agencies learn more about TAM?
The Federal Highway Administration (FHWA) has developed a one-day National Highway Institute (NHI) course to familiarize senior managers with the concepts, principles, and techniques outlined in the *Transportation Asset Management Guide*.

The course includes presentations, discussions, and exercises, including a session on completing and interpreting the results of the self-assessment tool. It offers a useful way to organize thinking about TAM issues, develop a consensus among managers on their agency's strengths and improvement areas, and structure an agenda for TAM implementation.

Successful Applications: Agencies are already moving toward an asset management approach

Many building blocks for TAM already exist in transportation agencies. Pavement management, bridge management, and information management systems provide the inputs necessary for TAM analysis. Most agencies have begun the transition to TAM-based thinking through performance-based management and strategic planning. The guide and training course are helping agencies build on steps they have taken toward a TAM approach.

The necessary computing power, data, and analytical tools to make TAM work are available, and agencies are using TAM to address the challenges they face in the 21st century. Agencies are making decisions involving tradeoffs among preserving what is in place, adding new capacity, improving system operations, enhancing environmental quality, improving safety, and ensuring security.

Benefits

- Involves strategic way of thinking that considers long-term consequences of investments.
- Focuses on way of doing business that is performance driven, focused on customer satisfaction, and oriented to return on investment.
- Uses new analytical tools and new ways of applying old tools to better integrate data and support decisionmaking.

Additional Resources

More information on TAM and the *Transportation Asset Management Guide* are available at **http://assetmanagement.transportation.org**.

Information on the NHI TAM training course is available at **www.nhi.fhwa.dot.gov/coursedesc.asp?coursenum=1130**.

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