

ASSET MANAGEMENT

Background:

- State transportation officials have always been faced with difficult resource allocation decisions. What is different today is the growing movement to apply discipline and a methodology to support more informed decision-making.
- Asset management has primarily grown out of two transportation agency program areas, Planning and Maintenance. Transportation planners operate in a strategic environment. They envision a desired future state, compare it to the present state, and develop plans to get from one to the other.
- Maintenance and its growing focus on preservation through preventive maintenance has contributed a system of analysis based on the deterioration curve, which is a graphical representation of the life cycle and deterioration rate of physical assets. Together the planning process and the deterioration curve represent important tools that provide structure for rational decision-making.
- In the 1990s, trends in government and the economy increased the need for a more structured approach to managing transportation assets. Various government acts and initiatives signaled a major shift in the way the business of government would be carried out, demanding improved performance and greater accountability from the public sector. One response was the introduction of an asset management methodology
- At the same time, progress in the technology arena enabled the development of sophisticated decision-support systems that could handle the complex cost-benefit analyses required by asset management systems.
- The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) heralded the end of the Interstate construction era and marked a new relationship between government transportation bodies and the public. Management of existing infrastructure gained precedence over the construction of new facilities. ISTEA promoted strategically driven investments and embraced enhanced planning and public involvement.
- Another government milestone that affected the growth of asset management was the Government Accounting Standards Board (GASB) Statement No. 34. The ruling required governments to report on their capital assets using a historical cost and depreciation basis or the option of taking a modified approach to reporting on certain infrastructure assets if they had an asset management system in place.
- ISTEA also required transportation agencies to establish management systems for pavements, bridges, safety, congestion, public transportation, and intermodal facilities. Although Congress later rescinded this mandate, many States had already begun developing the systems and chose to continue using them.

- The Y2K issue was seen by some States as an opportunity to divest themselves of legacy systems that no longer served their needs. Many of these States used asset management principles as a guide to developing the new business processes that helped drive the replacement systems.
- Transportation agencies are often described as “data rich but information poor.” Their large volumes of data are of limited practical use, thanks in part to the silo nature of most legacy computer systems, which were designed to support single business units. Asset management, on the other hand, requires data from many different business units to improve the decision making process.
- While external developments in government, the economy and technology created an environment that supported the emergence and development of asset management, it was through strong leadership—arising from a partnership between AASHTO and the Federal Highway Administration—that gave the process a critical boost.

In particular, AASHTO’s executive director, Frank Francois; AASHTO’s president (and director of the Iowa Department of Transportation), Darrell Rensink; and FHWA’s Executive Director, Anthony Kane, helped make asset management a national priority.

- In 1996, Kane, Francois, and Rensink lent their support to an initiative begun by Sue McNeil (a Carnegie Mellon University professor at the time) and FHWA manager Frank Botelho. Botelho and McNeil organized the first-ever executive workshop on transportation asset management, held in Washington, D.C., in September 1996.

This workshop—attended by Fortune 500 representatives and State transportation officials—would later be recognized as the genesis for transportation asset management as it is now known throughout the United States and in many other countries. Most importantly, the workshop formally used the term asset management and gave it a significant national focus. AASHTO and FHWA sponsored additional asset management workshops in 1997, 1999, and 2001, and 2003.

- In 1997, AASHTO created a transportation asset management **Task Force**, comprised of 12 State members plus representatives from FHWA and academia. Among the most important of the new task force’s activities was the Transportation Asset Management Today (TAMT) Web site (<http://assetmanagement.transportation.org>). Created with funding and technical support from FHWA.
- The **Task Force** developed a Strategic Plan, that was adopted in 2000, covering the period through 2010. The Plan included the Mission, Vision, Goals and Strategies, which were provided to you as background in the read ahead material. John Craig the Director of Roads in Nebraska was the most recent Chair of the Task Force. Their most recent meeting was in Providence in the summer of 2002. The Task Force was sunsetted at the end of 2003.

- In 1999, FHWA created the Office of Asset Management, giving it responsibility for several functional areas, including management systems (pavements, bridges, tunnels, and hardware), construction maintenance economics, and some aspects of planning and policy. Its mandate was to focus attention on asset management, provide technical assistance, and help develop relevant tools and business practices for use by State DOTs.
- The Transportation Research Board created its own asset management task force in 2000. It established a baseline body of knowledge about the field of asset management and looked for knowledge gaps that needed to be bridged in order to advance the field. In 2004, the TRB Task Force has been upgraded to a full Committee.
- Three States in particular have taken significant steps to institutionalize asset management. In each case, the State legislature or general assembly passed legislation during 2001 or 2002 to require the State transportation agency to implement an asset management program. Each State adopted a slightly different approach that reflects its transportation agency's focus and involvement, as well as its lawmakers' interests.
- First to act was the Vermont Legislature, with little apparent involvement of or encouragement from the Vermont Agency of Transportation (VTrans). In 2001, it passed Sections 24 and 25 of Act No. 64. Section 24 required VTrans to develop an asset management plan and identified the types of assets the plan should cover.
- Michigan, whose pavement engineers were nationally recognized for approaching pavements from a life-cycle perspective, acted next, taking the planning-oriented approach championed by the Michigan Department of Transportation (MDOT). Unlike VTrans, MDOT helped drive the passage of Michigan's first asset management legislation, Public Act 499 of 2002.
- In Virginia, asset management efforts grew out of the Virginia Department of Transportation's (VDOT's) highway maintenance and operations program. In the 1990s, VDOT launched a rigorous business process reengineering effort, which identified asset management as the best business model for the department's maintenance and operations program. Virginia's General Assembly passed the Public Private Transportation Act (PPTA) in 1995, allowing private firms to perform a variety of services (from capital projects to maintenance and operations) traditionally provided by VDOT. In 2002, asset management legislation codified VDOT's asset management program.
- This Subcommittee has a real opportunity to make a difference in the advancement of Asset Management. Informed decision-making and improved utilization of limited resources is essential in the management of our programs. Asset Management can and should be institutionalized within AASHTO and the State DOTs; this Subcommittee can help make it happen.