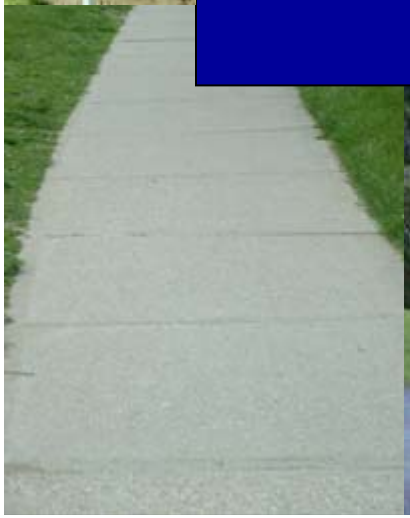






International Scan on Asset Management:

Australia, Canada, England, and New Zealand

April 8-April 23, 2005

Panel Members

- **Paul Wells, New York DOT, Co-Chair**
- **David Geiger, FHWA Co-Chair**
- **Kirk Steudle, Michigan DOT**
- **Larry Velasquez, New Mexico DOT**
- **Lacy Love, North Carolina DOT**
- **Dennis Merida, FHWA - New Jersey**
- **Robert Ritter, FHWA - Washington DC**
- **Don Tuggle, FHWA - Federal Lands**
- **Dr. Sue McNeil, University of Illinois, Chicago**
- **Patricia Bugas-Schramm, APWA, City of Portland, OR**
- **Dr. Mike Meyer, Report Facilitator, Georgia Tech.**

What is Transportation Asset Management?

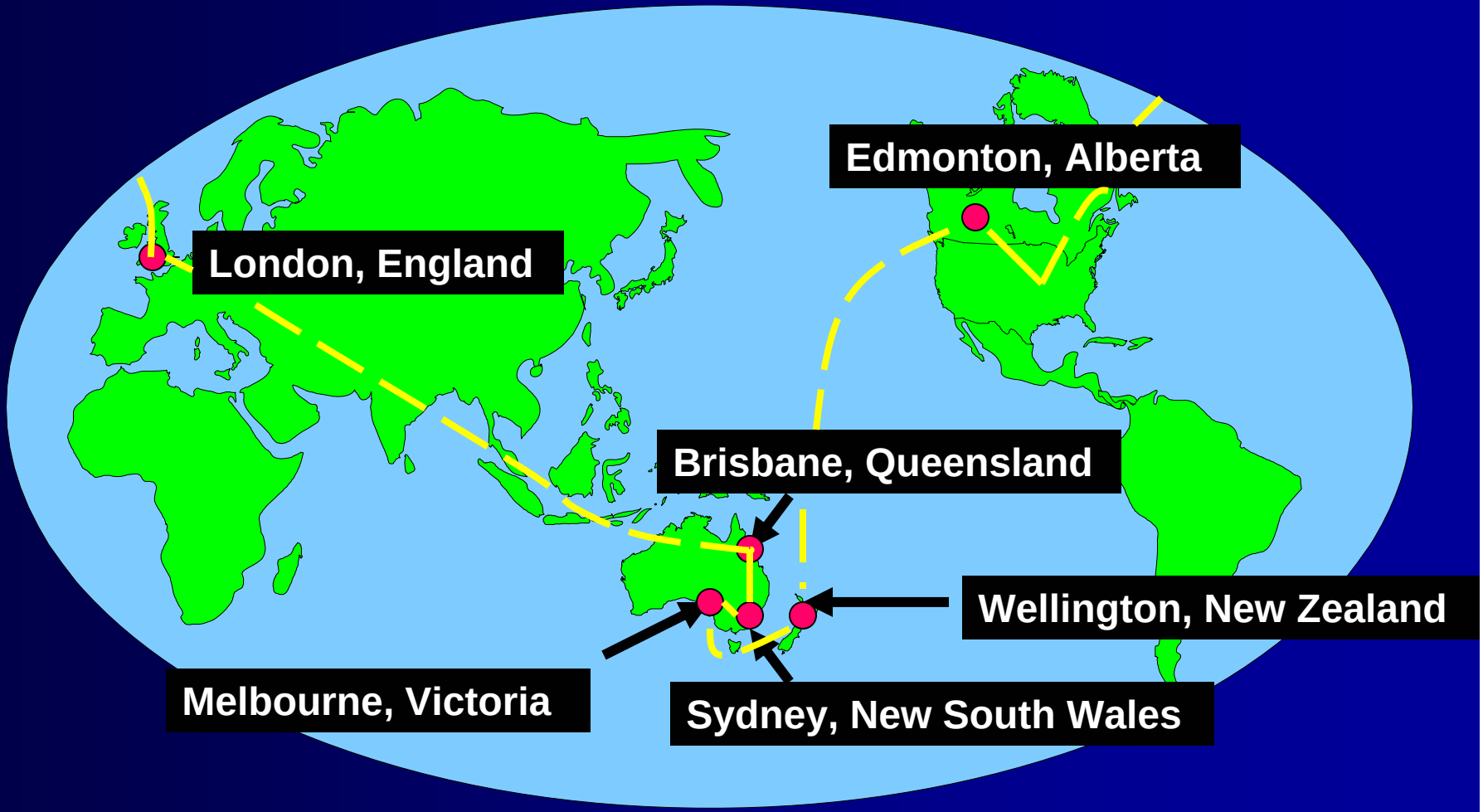
A strategic approach to managing transportation infrastructure. It focuses on… business processes for resource allocation and utilization with the objective of better decision making based upon quality information and well defined objectives.

Purpose

Investigate best case examples of asset management techniques and processes in the world…and identify lessons and applications for the U.S.

Sponsored by AASHTO, FHWA, and NCHRP

Where we went….



What were the drivers for adopting asset management approaches?

- Limited resources
- Increasing demands on and use of existing infrastructure
- Desire for credibility with elected officials and the public, that is, linking funding to system performance
- Where private provision of services was used, asset management was a way of providing strategic oversight

- Natural evolution in the development of individual infrastructure management systems
- Desire to evolve to a system that allows trade-offs among different asset categories and between asset strategies
- Legislative or governmental mandate, e.g.,
  - Road Management Act in Victoria
  - Local Transport Plan 2 guidance in England
  - Local Government Act in New Zealand

What we found…

Each site visited has made a long term commitment to, and allocated resources for, developing an asset management program….

and are continuing to “evolve” this program in response to agency decision-making needs.

Many agencies and/or jurisdictions have set up an organizational support structure for asset management….

Key performance measures and indicators provided a critical point of departure and an accountability reference for asset management programs

Lessons for the U.S.

Asset management programs have been used successfully to justify transportation funding (even in tight economic times) and to convey to decision makers that the investment is being delivered in the most cost effective manner possible.

Asset management programs have helped transportation agencies focus on network performance and to identify the best “value for dollar” of limited investment resources.

Adopting an asset management approach in an organization does not mean that everything has to change.

Asset management efforts are data-driven. However, developing an asset management culture in an organization does not have to await the many years it might take to develop database information systems.

Creating asset manager positions or at least assigning responsibilities for the asset management function are important foundations for an effective management program

Asset management efforts are best achieved when they are linked to strategic goals and desired outcomes.

All of the asset management programs used the concept of risk for establishing investment priorities.

Risk concepts need to be incorporated more systematically into U.S. asset management efforts.

Condition and remaining asset value are important indicators of the degree of need and level of service that are associated with different asset types….

Asset management systems are much more appropriate to use for asset valuation than straight-line depreciation accounting rules.

The integration of asset management concepts into public/private partnership agreements was an important challenge facing transportation officials….

a comprehensive asset management effort needs be part of any agreement in order to ensure the asset being returned to the owner in good condition.

Prior to contracting out core services, performance-based management systems should be in place that allows the infrastructure owner to know what levels of service are required. This was described in the scan as being a “knowledgeable owner.”

Data should have a clear purpose and be directly related to asset management decision making. Data collection costs should be tracked and data itself treated as an asset, with the same design, build, operate, maintain and life cycle cost analysis as is used for other assets.

Trade-off analysis techniques are more complex than simply assessing priorities within one asset category. The scan team did not find any case where technically-based cross asset trade-off tools were used. This is an important area for further development in the U.S.

Cross-functional teams, consisting of engineers, finance analysts, operations staff, and communications experts can best understand the many different aspects of asset management, such as data collection, developing strategies, and quality assurance.

The most impressive asset management programs had a strong human resource element.

Several agency personnel systems have created job positions with asset management in the job responsibilities

Asset management training for all levels of transportation officials is an important initiative for changing the culture of an organization and in establishing asset management expectations among key stakeholders.

Implementation

"Quick" Action Items include:

- Continue development and support of AssetManager NT & PT by AASHTOWare.
- We are repackaging existing materials for the Transportation Asset Management/Asset Management community of practice website.
- The NHI course on Asset Management has been updated to reflect what has been learned and includes more implementation items.

Implementation—Long Term

Refocus the national viewpoint of the transportation system from merely expenditures to investments in mobility, people, goods and services by using an asset management-based methodology

Implementation—Long Term

Task 1: Initiate a study **"Develop a national TAM model for the Interstate System"** *to determine the benefits of using asset management plans for all segments of the Interstate Highway System.*

Proposal has been developed and submitted to NCHRP.

Implementation—Long Term

Task 2: Develop a prototype based on asset management practice in England, including national policy, performance indicators and reporting requirements for national and local agencies (Dave and Sue)

Draft correlating policy indicators and reporting requirements for the U.S., which could provide guidance on reporting national, regional and local transportation network performance.

Implementation—Long Term

Task 3: Target a state or region to take a holistic view of the entire public asset inventory providing increased funding flexibility

Task 4: Develop linkage between transportation planning and programming and asset management at the MPO level

Implementation—Long Term

Join with other efforts, agencies and resources to embed the topic into existing efforts on an on-going basis. Create National Asset Management Steering Committee (NAMS) in U.S.

Implementation—Long Term

Extend U.S. asset management practice through research and staff studies

1. Before and after studies on the effectiveness of asset management efforts (benefits)
2. Define and quantify risk categories for an asset management program
3. Data collection and analysis for asset management
4. Plus six others