



# Managing Pavements, Monitoring Performance

## International Technology Scan Program

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June 9-26, 2011

### **Scan Leaders:**

Richard Tetreault, Vermont Agency of Transportation  
Butch Wlaschin, Federal Highways Administration

# Topics

- Team and Objectives
- Activities
- Findings
- Recommendations
- Products


# Scan Team

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- Richard Tetreault, Vermont Agency of Transportation
  - Butch Wlaschin, Federal Highway Administration
  - Tom Baker, Washington State DOT
  - Tim Colling, Michigan Tech Transportation Institute
  - Judith Corley-Lay, North Carolina DOT
  - Kevin McLaury, Federal Highway Administration
  - Nastaran Saadatmand, Federal Highway Administration
  - Roger Safford, Michigan DOT
  - Katie Zimmerman, Applied Pavement Technology (Report Writer)
  - Armando Perez, American Trade Initiatives (Contractor)

# Scan Team



# Objectives

- 
- Identify processes for implementing sustainable performance-based programs for managing pavements
  - Acquire effective communication strategies
  - Learn how to develop agency cultures to support performance-based programs
  - Identify tools, techniques, and other mechanisms to support and encourage performance-based management

# Desk Scan

- Sources of Information
  - Literature search
  - Internet review
  - Expert advice

## MANAGING PAVEMENTS, MONITORING PERFORMANCE

INTERNATIONAL TECHNOLOGY SCANNING PROGRAM

*By*

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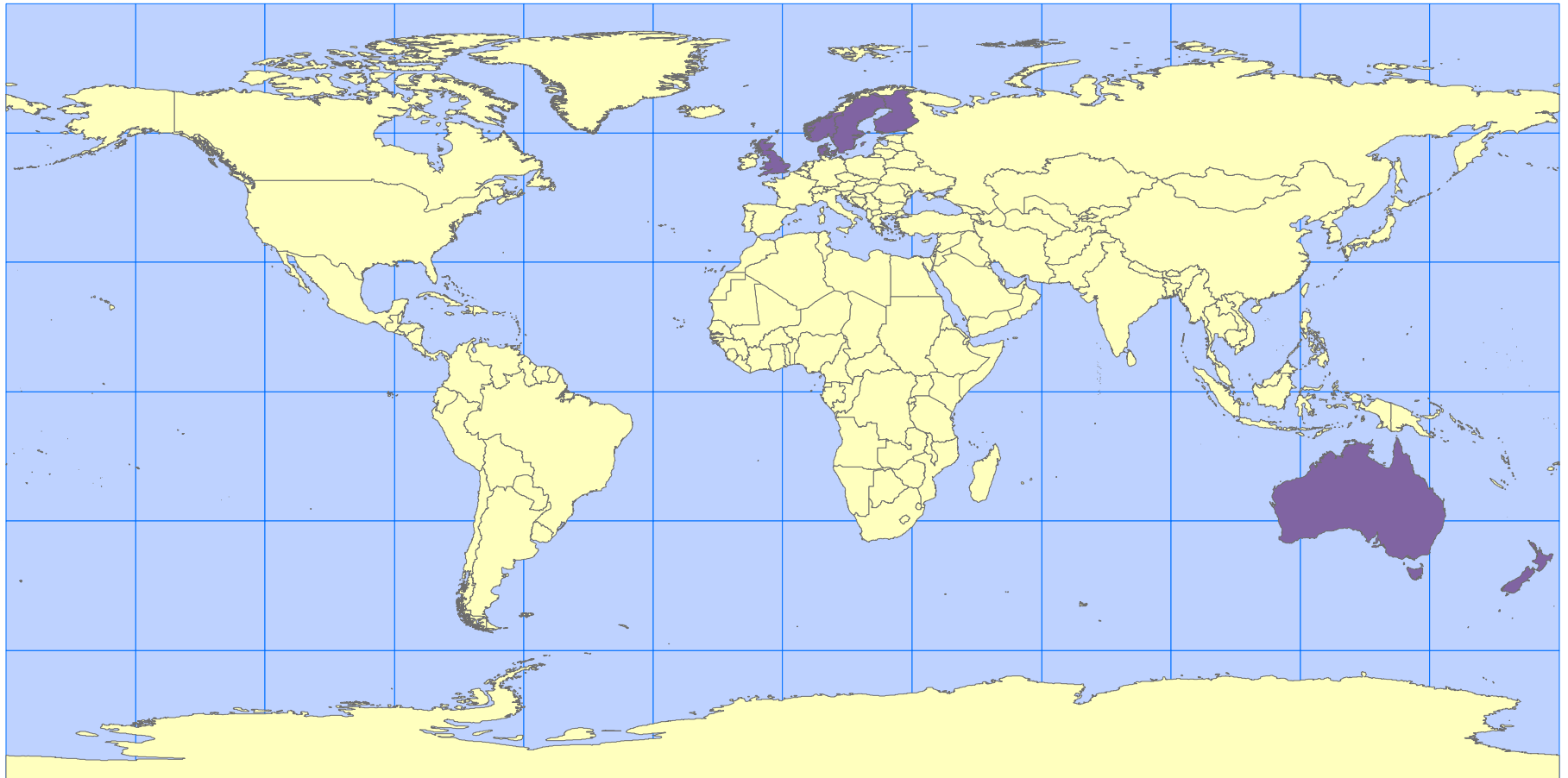
*Submitted to:*

*American Trade Initiatives*

*For distribution to:*

*U.S. Department of Transportation, Federal Highway Administration  
American Association of State Highway and Transportation Officials  
National Cooperative Highway Research Program*

# Countries With Practices of Interest



# Agencies Visited During Week 1

- New Zealand
  - New Zealand Transport Agency
- Australia
  - Institute of Public Works Engineering Australia (IPWEA)
  - Roads Corporation of Victoria (VicRoads)
  - Department for Transport, Energy & Infrastructure (South Australia)



**Government of South Australia**

Department for Transport,  
Energy and Infrastructure



# Agencies Visited During Week 2

- Sweden
  - Swedish Transport Administration
  - Finnish Transport Agency
  - Danish Road Directorate
  - Norwegian Public Roads Authority
- Netherlands
  - Road Traffic & Transport Authority (Netherlands)
  - Szechenyi Istavan University(Hungary)
- England
  - Highways Agency
  - Transport for London
  - Transport Scotland
  - Transport Research Laboratory (TRL)




Statens vegvesen




Creating the future of transport


# Amplifying Questions

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1. Use of Sustainable Performance-Based Programs for Managing Pavements
  2. Effective Communication Strategies to Promote Pavement Management Policies
  3. Developing Agency Cultures to Support Pavement Management Policies
  4. Availability of Techniques & Tools to Support Pavement Management Policies

# Perspective & Terminology

- 
- Focus on pavement management policies and practices, but many findings relate to asset management – **same same**
  - Focus on strategic goals and performance targets are similar to US performance management activities
  - Economic climate similar to US
  - Pavement preservation activities are referred to as maintenance and renewal activities

# Key Findings

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- Agency Culture Supports Long-Term Decisions
  - Elected Officials Are Stewards of Public Funds
  - There is a Service-Oriented Approach to Managing Roads
  - Agency Priorities are Known and Personnel are Held Accountable for Actions
  - Building Internal Capacity and Capabilities is a Focus
  - Efficiency & Value Have Driven Program Delivery

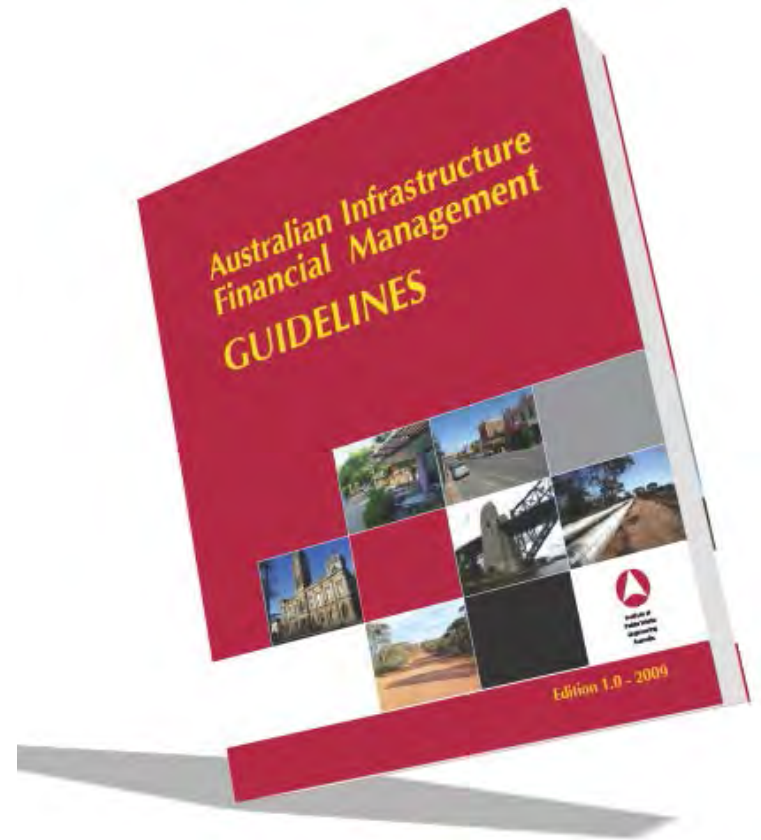
# Key Findings



- Long Term Financial Plans
  - These are not **funding** plans
  - Reporting on depreciation and unfunded liabilities every year
  - Business accounting
- Education and Training of Politicians
  - Politicians required to attend training

# Agency Culture Supports Long-Term Decisions

- Development of 10-year financial plans that consider the whole life costs associated with the maintenance & renewal of the road



Guidelines developed & distributed by IPWEA

# Elected Officials Are Stewards of Public Funds



- IPWEA trains politicians on their stewardship responsibilities toward infrastructure preservation


# There is a Service-Oriented Approach to Managing Roads

- New Zealand Transport Agency compares the management of the road network to the management of a utility
- Transport for London considers three factors important to providing an acceptable level of service





# Key Findings, Different Applications


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- New Zealand: service approach to preservation
  - Vic Roads: preserve the BST, let HMA go
  - Most countries still doing “worst first” even though they understand lowest life cycle cost

# Agency Priorities Are Known & Personnel Are Held Accountable For Actions


- VicRoads places the highest priority on the local road network to reduce agency risk




# Recommendations

- 
1. Foster the use of asset management plans & long-term financial plans
  2. Establish a strategic plan for providing the framework, tools, and drivers needed
  3. Support the shift towards a service-based approach & identify needed Key Performance Indicators (KPIs)
  4. Support changes to funding & delivery mechanisms to better support multi-year obligations tied to KPIs

## Recommendations (cont)

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5. Explore the use of independent performance audits
  6. Develop core competencies and job descriptions for asset managers
  7. Support improvements to current pavement management practices to support these efforts
  8. Establish mechanisms to integrate findings into current practice
  9. Further support the use of asset management

# Final Products

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- Summary Report
  - Final Report
  - Implementation Plan
    - Will be looking for volunteers
  - More to come