

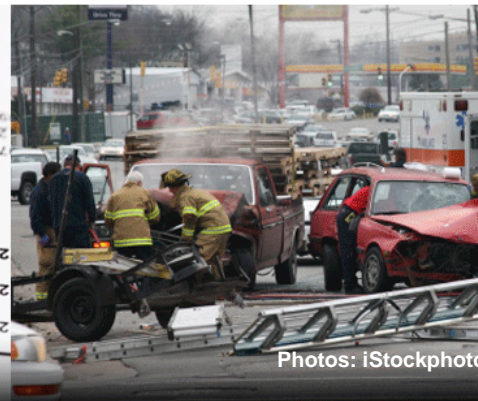


# TRAFFIC INCIDENT MANAGEMENT

# Cost Management and

# Cost Recovery

## Mid-Level Briefing



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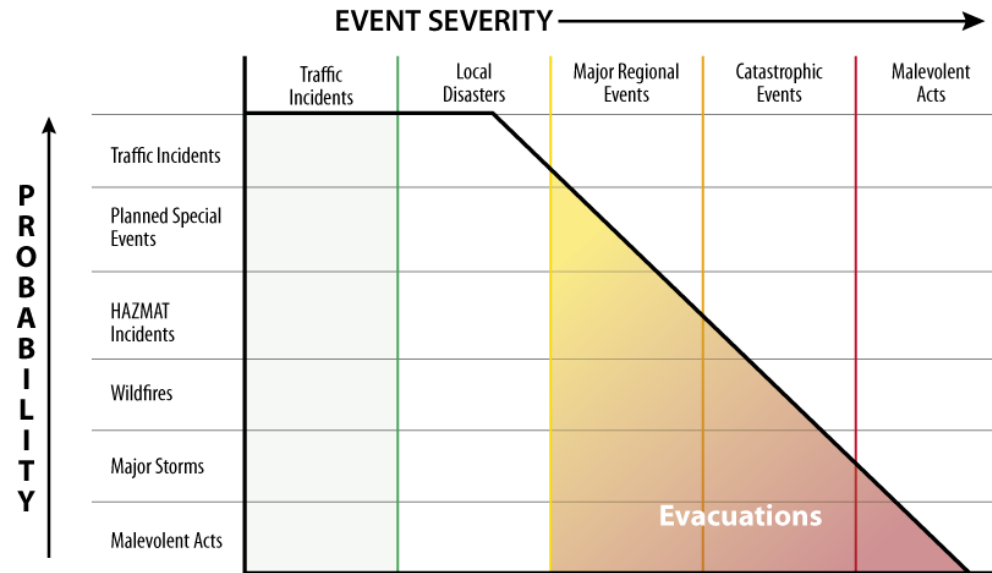




# Agenda

- Briefing Objective and Overview
- Statement of the Problem
- Moving Towards a Sustainable TIM Program
- Action Plan

# Overview of Traffic Incident and Event Management



- Effective TIM programs form the basis for preparedness for other transportation emergencies
- All effective programs include close coordination with public safety officials



# Overview of Typical Traffic Incident Management Activities



TIM Strategic Activities	TIM Tactical Activities	TIM Support Activities
<ul style="list-style-type: none"><li>•Staffing/Resourcing</li><li>•TIM Teams</li><li>•Policies and Procedures</li><li>•Training</li><li>•Vehicle Purchases</li><li>•System Deployment</li><li>•Software Deployment</li><li>•Asset Purchases</li><li>•Asset Typing</li><li>•Resource Typing</li></ul>	<ul style="list-style-type: none"><li>•Agency Notification</li><li>•Resource Dispatch</li><li>•Scene Setup</li><li>•Device Activations</li><li>•Traffic Diversions</li><li>•Queue Monitoring</li><li>•Investigative Procedures</li><li>•Victim Extrication and transport</li><li>•Vehicle Clearance</li><li>•HAZMAT Mitigation</li></ul>	<ul style="list-style-type: none"><li>•Data Collection</li><li>•Data Integration</li><li>•Data Sharing</li><li>•Traveler Information</li><li>•After Action Reviews</li><li>•Cost Management</li><li>•Cost Recovery</li></ul>



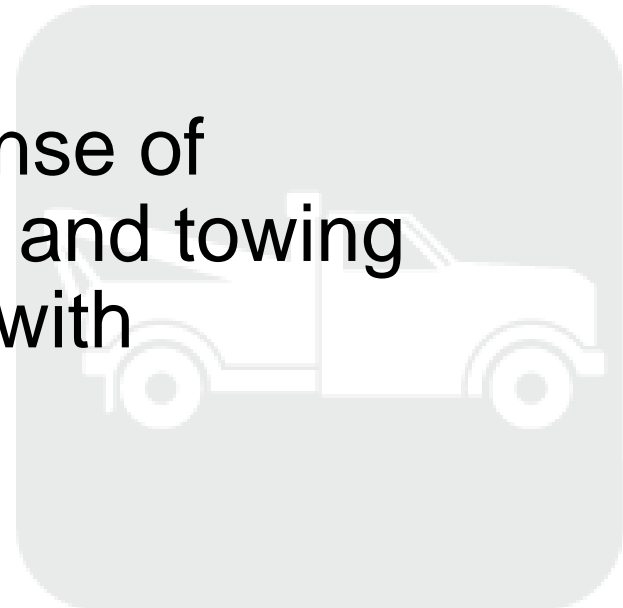
# Background

- Current legislation enabling first responders to collect fees is enacted at the local level
- An opportunity to recover costs is with modification to state statutes that stipulate recovery of costs for damages to infrastructure
  - Tactical TIM costs should be viewed as part of the recovery process, including first responder costs



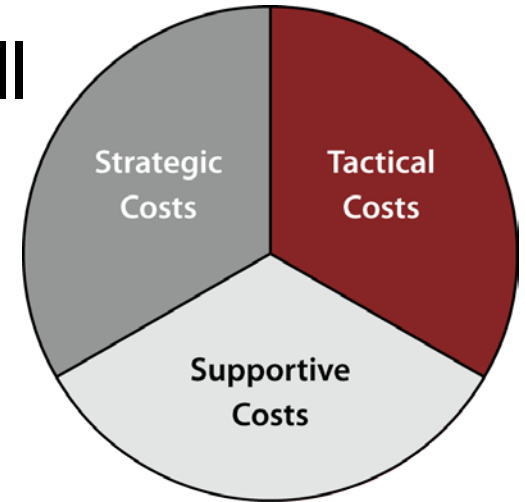
# Statement of the Problem

- TIM will continue to be required
  - Over 5 million reported crashes in 2009
  - Nearly 31k fatalities and over 1.5 million injured
- A minimum response of police, fire/rescue and towing with coordination with transportation



# Statement of the Problem

- Fiscal impacts of TIM will continue
  - Tactical costs can exceed \$200k
  - There are no tabulations of costs associated with strategic and support activities
- Other costs such as insurance, responder training, lost wages by injured first responders and other societal costs are unknown





# Cost Recovery Defined

- Reimbursement received from outside sources
- Examples: Federal grant sources, MPOs, or private interest
- Cost recovery vs. cost substitution



# Cost Management Defined

- There are four fundamentals of cost management
  - Cost Planning
  - Cost Tracking
  - Cost Analysis
  - Evaluation and Decision



# Cost Management Defined

- There are four fundamentals of cost management
  - Cost Planning
    - Estimating future costs
    - Budgeting



# Cost Management Defined

- There are four fundamentals of cost management
  - Cost Tracking
    - Discrete coding of activities
      - Timesheets
      - Vehicle mileage
      - Supply purposes
  - Cost tracking represents an opportunity to use NIMS for TIM



# Cost Management Defined

- There are four fundamentals of cost management
  - Cost Analysis
    - Data processing
      - Trends over time
      - Per-unit measures
      - Output performance measures



# Cost Management Defined

- There are four fundamentals of cost management
  - Evaluation and Decision
    - Future programming considerations
    - Information for cost planning
    - Resource allocations
    - Asset management





# Cost Management

## Case Study – South Dakota

- Implemented an ABC system as part of a management performance program known as Collaborative Performance Management
- Helps the department run its operations more efficiently
- Results
  - Lower the lifetime cost of ownership and operation of specific assets.
  - Allows monitoring of the effectiveness of the department's transportation services.
  - Maintains the knowledge base as staff retires.
  - Prepares performance-based business plans and budgets.



# Cost Management Defined

- Costs can be categorized in three ways
  - **Fixed costs**
  - **Variable costs**
  - **Mixed costs**

# Moving Toward TIM Program Sustainability

- Implement accounting procedures that allow for a true understanding of all TIM Costs
- Consider activities that allow costs to be recovered





# A Roadmap for TIM Cost Management

- **Asset Utilization**

- Consists of the process to understand costs of devices, facilities and other physical, non-human TIM program elements

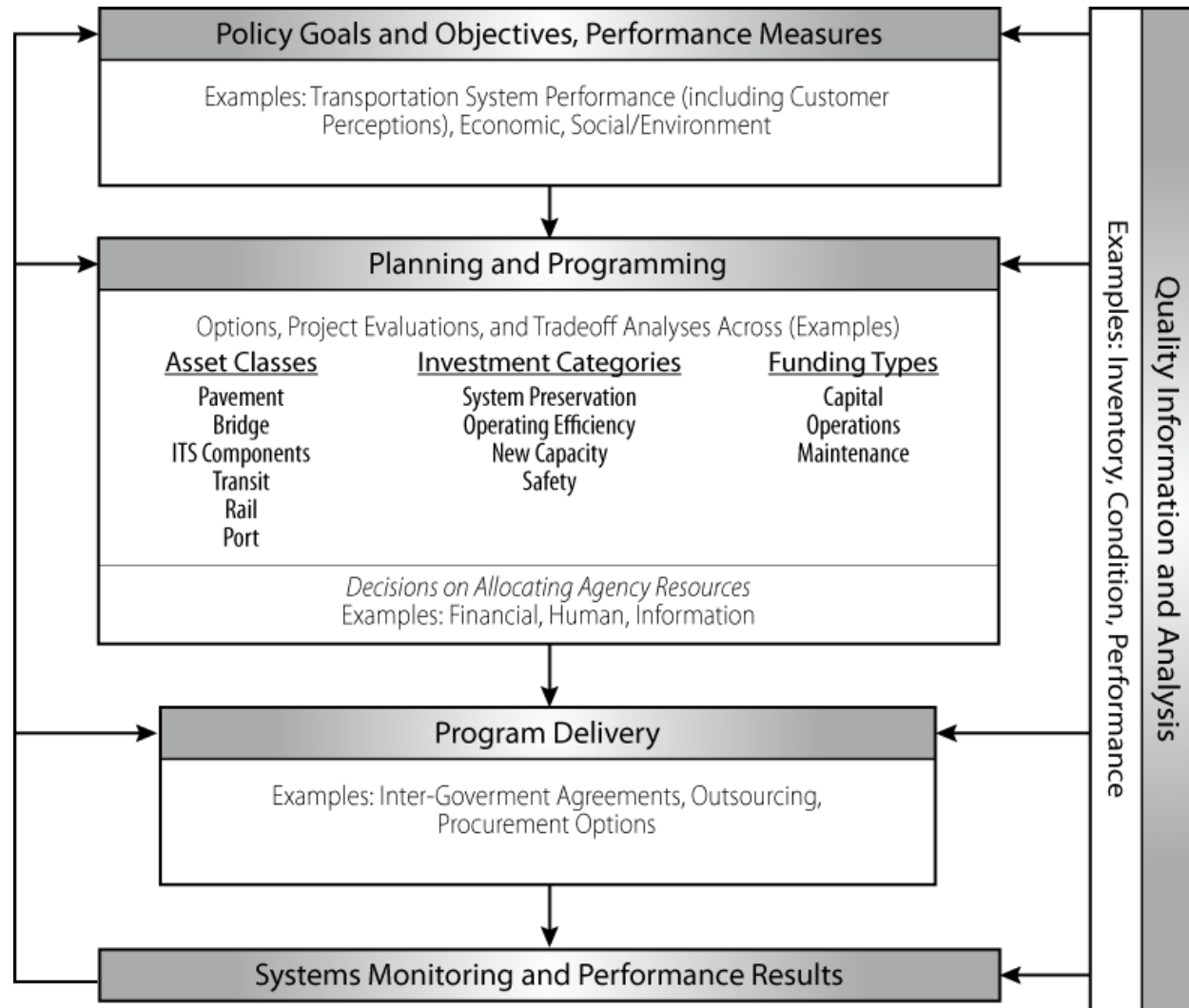


# Asset Utilization & Management

- Assets are defined as quantifiable physical objects, and resources are defined as people and time.
- A decision-making framework focused on the purchase, construction, maintenance, replacement, and retirement of fixed assets.



# Asset Utilization

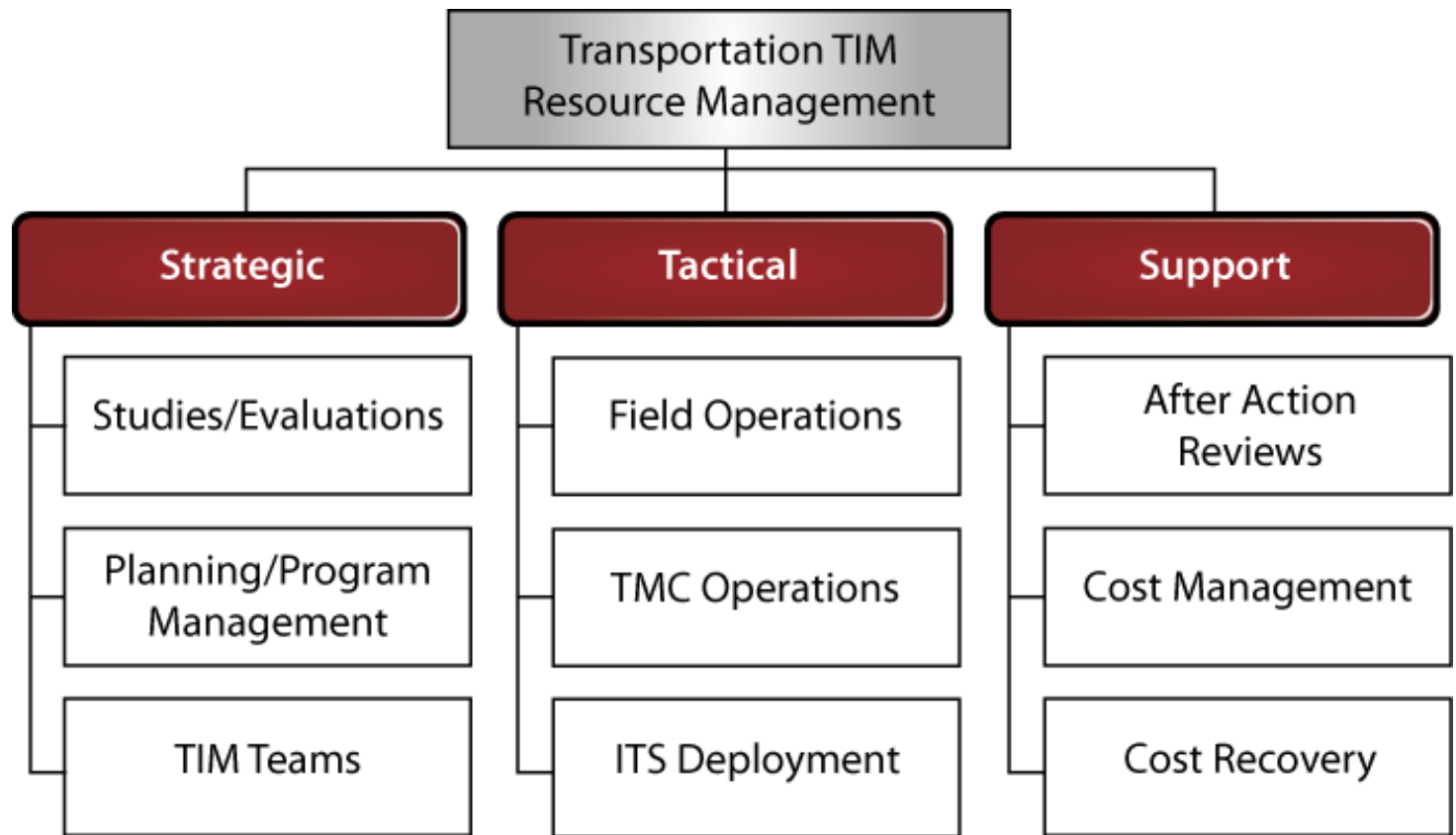


# A Roadmap for TIM Cost Management

- Resource Utilization
  - Consists of the process to understand costs associated with personnel (including both in-house and consultant) situations

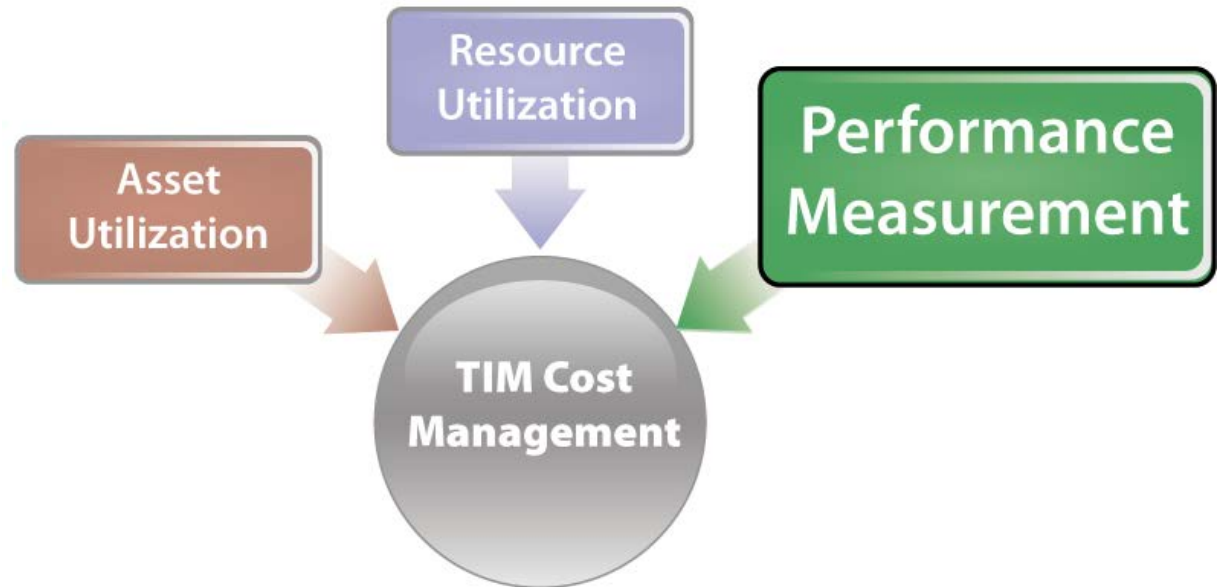


# Resource Utilization



# A Roadmap for TIM Cost Management

- Performance Measurement
  - Consists of understanding what benefit assets and resources are providing to the system or what implications that lack of assets and resources are having on overall performance.





# Performance Measurement

- FHWA has been researching and developing information on TIM performance measures
  - A knowledge base has been developed or use by practitioners
- [http://ops.fhwa.dot.gov/eto\\_tim\\_pse/preparedness/tim/knowledgebase/](http://ops.fhwa.dot.gov/eto_tim_pse/preparedness/tim/knowledgebase/)

# A Roadmap for TIM Cost Management



Category	Start-up Plan	Transition Plan	Established Program
<b>Asset Utilization</b>	<ul style="list-style-type: none"> <li>• Determine TIM Inputs for asset management</li> <li>• Collect baseline requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Complete TIM system inventories</li> <li>• Maintain maintenance costs and operating costs for historical reference</li> </ul>	<ul style="list-style-type: none"> <li>• Use asset life-cycle and replacement cost estimates to plan for costs on an annual basis</li> <li>• Use visualization tools to convey the cost of assets versus performance</li> </ul>
<b>Resource Utilization</b>	<ul style="list-style-type: none"> <li>• Determine discrete TIM functions by discipline and by position</li> <li>• Determine shared resources and interdependent resources</li> </ul>	<ul style="list-style-type: none"> <li>• Baseline employee capabilities versus each identified discrete function</li> <li>• Identify gaps in functions provided</li> <li>• Develop resource training lifecycle</li> <li>• Include systems to include discrete coding functions for direct and indirect</li> </ul>	<ul style="list-style-type: none"> <li>• Use cost center accounting to track and analyze TIM resource costs</li> <li>• Assign a charge code for TIM strategic, tactical and support activities</li> </ul>
<b>Performance Measurement</b>	<ul style="list-style-type: none"> <li>• Determine how the NUG should be measured</li> <li>• Determine what input and output gaps exist for NUG reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Implement a NUG Performance Measurement Program</li> <li>• Collect baseline information to establish a performance index</li> </ul>	<ul style="list-style-type: none"> <li>• The performance measures from other sections</li> </ul>



# Options for Recovering Costs

- Seek and support legislative actions that enable recovery
- Examine opportunities for public-private partnerships



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# Types of Legislation

- **Emergency Medical Services** – costs associated with response and patient transport.
- **Fire** – costs associated with response and recovery activities. Actions essential to the survival of the vehicle occupants, such as extrication.
- **HAZMAT** – costs associated with the emergency response and recovery efforts due to the release of hazardous materials from responsible parties.



# Types of Legislation

- **Infrastructure** – costs associated with the repair or replacement of the roadway or roadway components from liable drivers.
- **Law Enforcement** – costs associated with response and/or crash investigation from involved parties or insurance companies.
- **Transportation** – costs associated with response and traffic control.



# Legislation Awareness

- It is important to use caution when discussing cost recovery legislation.

Proponent Viewpoints	Opponent Viewpoints
<ul style="list-style-type: none"><li>• The alternative is to reduce service</li><li>• Represents a true user fee</li><li>• Taxes are for making the resource available only</li><li>• The reduction in property and other tax revenues has placed additional stress on the emergency response community</li><li>• Education can change the view point of the public</li><li>• Responder and motorist safety can be compromised</li><li>• There are no alternatives</li></ul>	<ul style="list-style-type: none"><li>• Constitutes double taxation</li><li>• Increases insurance rates</li><li>• Is ineffective</li><li>• Increases citizen financial stress</li><li>• Re-victimizes those affected by vehicle crashes</li><li>• Could cause motorists not to seek emergency services</li><li>• Is not successful</li><li>• Creates a negative public opinion of government</li></ul>



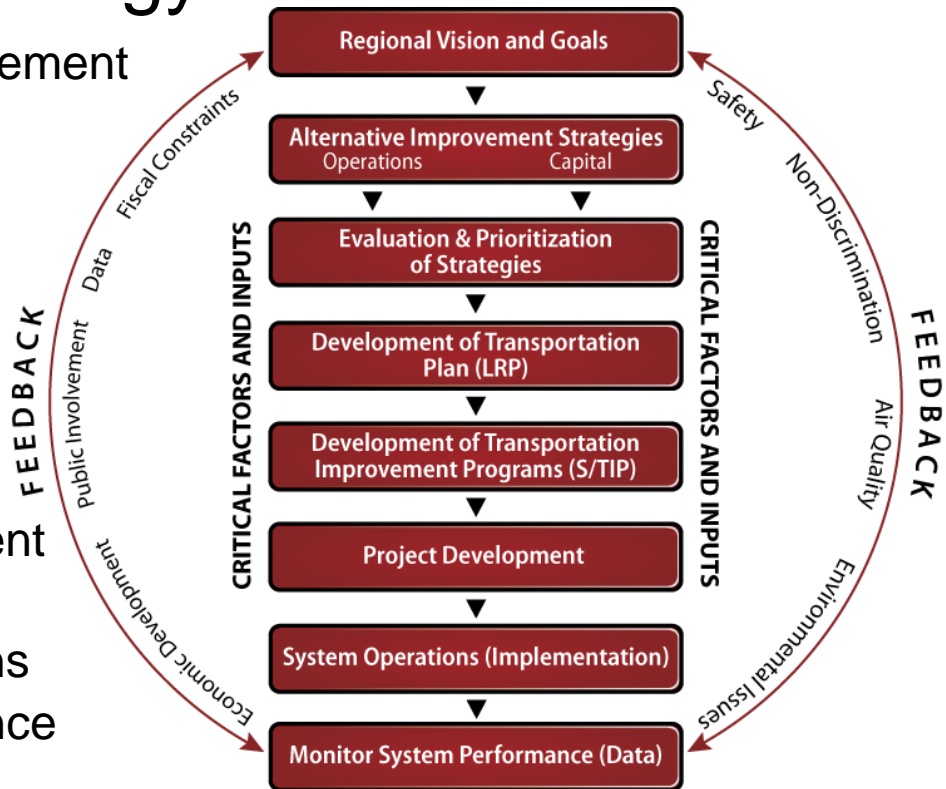
# Public-Private Partnerships

- Many transportation agencies already use these partnerships with safety service patrol programs
- Expand TIM cost considerations and seek these types of partnerships:
  - The sale of traffic data to private vendors
  - Implementation of HOT lanes and the inclusion of TIM costs as a part of the calculated costs

# Planning for TIM

- Include the outcome of a formalized TIM program into a planning for operations strategy

- Alternative Improvement Strategies
- Evaluation and Prioritization of Strategies
- Development of Transportation Plans
- Project development process
- Systems operations
- System Performance





# Planning for TIM

- Connecting TIM with State and Regional Transportation Improvement Plans
  - Congestion Mitigation and Air Quality
  - National Highway System
  - Surface Transportation Program



# Planning for TIM

- Creating Local Line Items
  - Helps anticipate costs
  - Helps administration, politicians and public account for and acknowledge TIM
  - Helps with performance measurement





# Action Plan

- Support and Execute TIM programs that have strategic direction and multi-disciplinary participation
- Implement the Cost Management Roadmap
- Coordinate with DOT executives and industry points of contact to identify and vet cost recovery methods