

# Transportation Operations - A Mayor's Perspective

In Reality, It's All About Changing  
The Investment Mix

*A Discussion with Arizona Leadership*

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Operations – A Mayor's Perspective

# Decision Maker's Reality!

“There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage, than the creation of a new system. For the initiator has the enmity of all who would profit by the old institution, and merely lukewarm defenders in those who would gain by the new one.”

- Niccolo Machiavelli, *The Prince* (1513)

***And we're going to urge that it's time for change!***

# Session Purpose

- Share thoughts (empathy!) with respect to realities for decision makers in tackling fundamental cultural and budgetary process changes
- Share emerging thinking on how to address challenges in performance of our transportation system by shifting from focus on capital investments to a mix of capital and operations investments

*While mindful of Machiavelli's quote!*

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# The Real World – Competing Imperatives for Decision Makers

- Economic development/jobs versus environmental and quality of life concerns
  - Residential quality of life versus commuter cut-through traffic
  - The “American dream” versus sprawl
  - Expanded services versus anti- or no-tax advocates
  - Air quality requirements versus mobility needs
  - Social imperatives and school needs versus transportation need
- + Immigration issue!

***“I am elected from a place, by its people. My job is to speak up for their interests and concerns. It’s that simple.”***

**- John Milliken, former member of Arlington Board and Secretary of Transportation (Virginia)**

# Factors That Affect Decision Makers

- Limited time to address any issue
- Tendency to have some particular area of interest (especially elected officials)
- Elected officials very dependent on staff
- Sensitivity to process (or train might get derailed!)
- Respect for colleagues' turf
- Peer perspectives
- Inter-personal relationships usually the key to getting things done
- Elected officials like to be given credit and recognition for successes
- Sensitivity to fiscal constraints
- Jargon – elected official prefer “plain speak”

*And, importantly, elected officials like to get re-elected!*

# A Couple More Quotes to Set the Stage

“The chair of the legislative committee has great power. The chair controls the agenda, the testimony, and the amount of time allotted to the issue. Committee members defer to the chair and it’s rare the chair does not prevail.”

- Thomas D. Rust, Member, House of Delegates, Virginia

“My role as staff is to understand and synthesize. I don’t need or want persuasion from outside groups. I want facts and analysis.”

- Pierce Homer, former Secretary of Transportation, Virginia

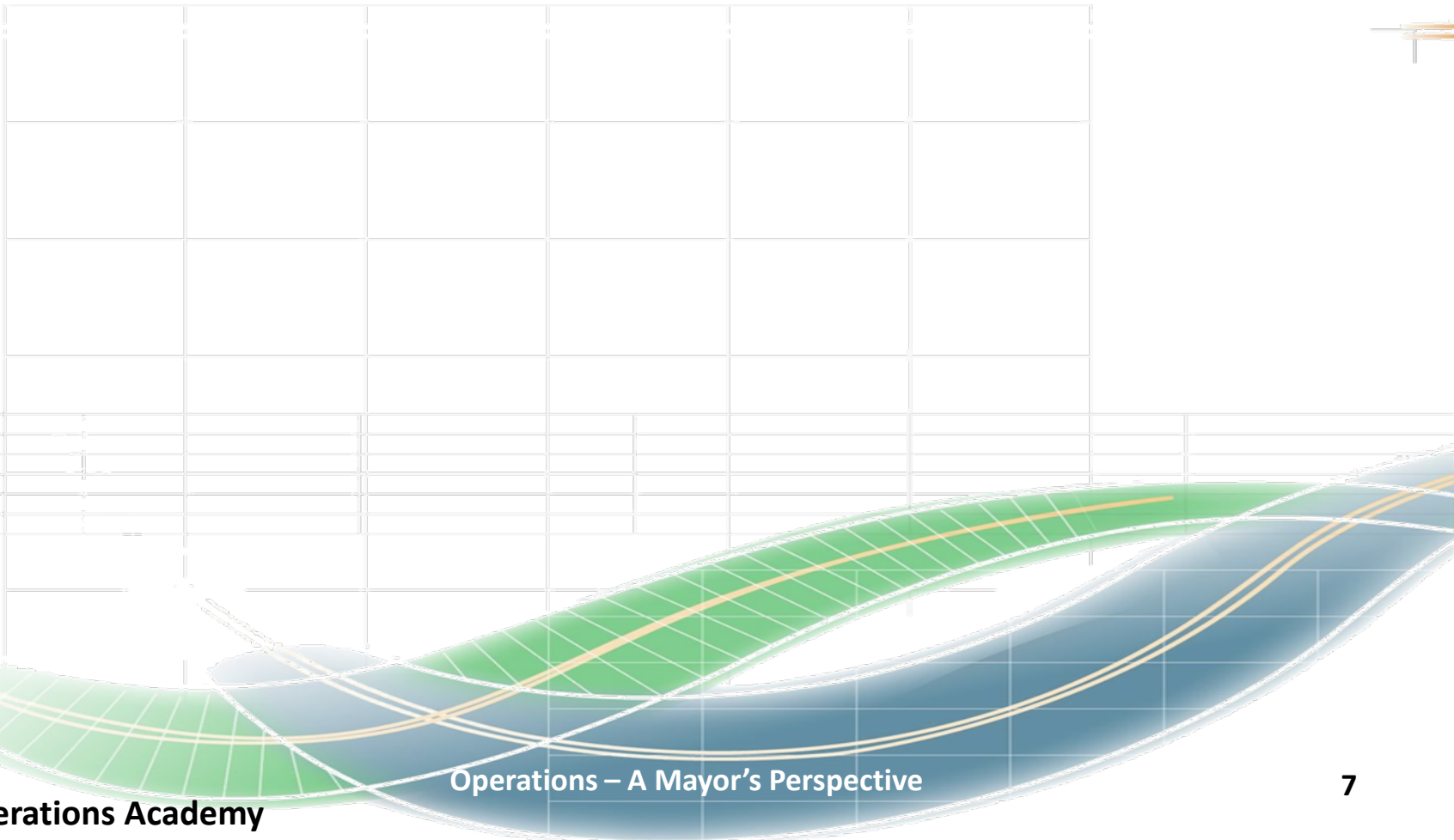
“Three key points need to be made in any communication: 1) What action do you want me to take? 2) Why should I support this action? and 3) How does it impact my constituents?”

- Sarah Siwek, President of Sarah J. Siwek and Associates

# Arizona Transportation Concerns

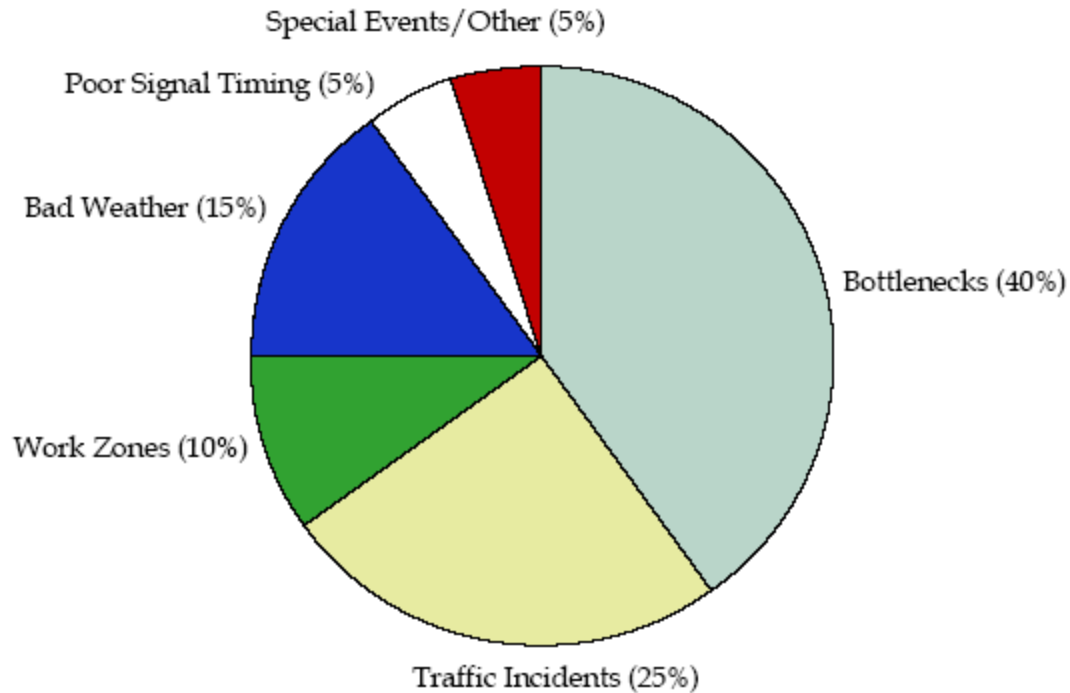
- Not enough funding! – OK – What else?

- ?
- ?
- ?
- ?
- ?
- ?
- ?



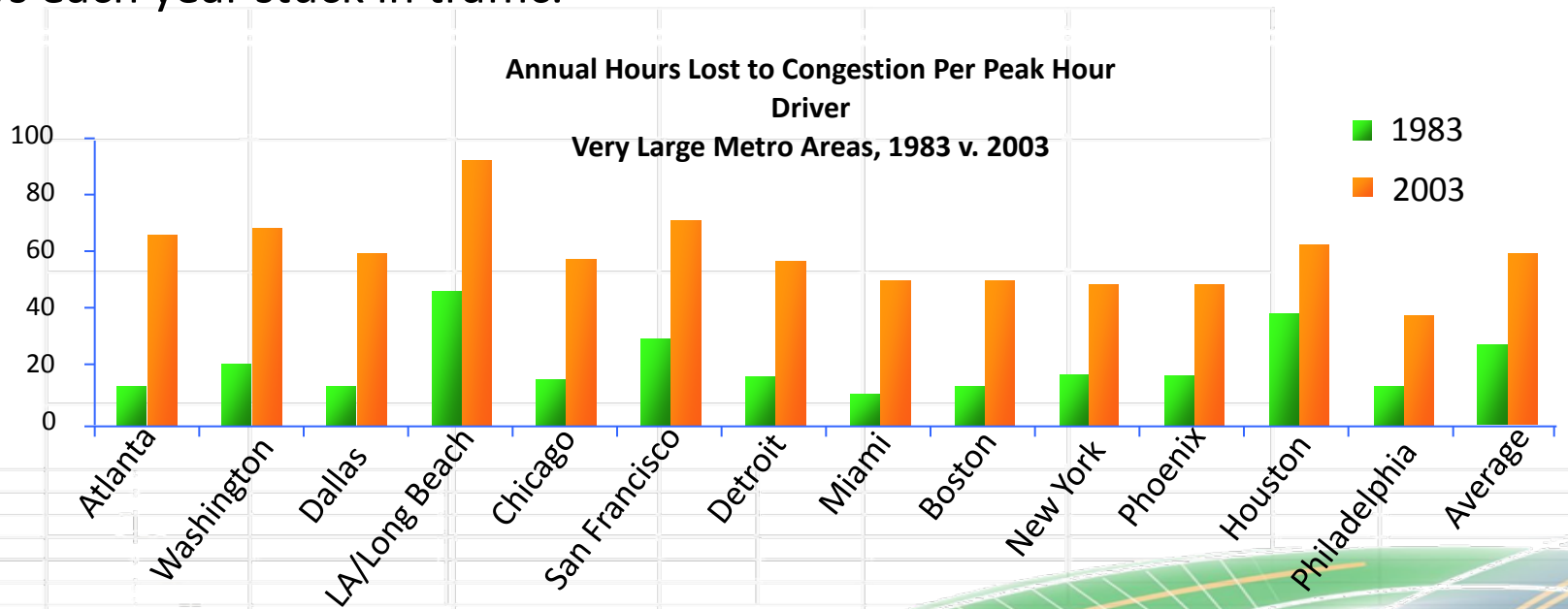
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# Sources of Congestion



# Growth in Wasted Hours

In the 13 largest regions, drivers spend the equivalent of almost eight work days each year stuck in traffic.



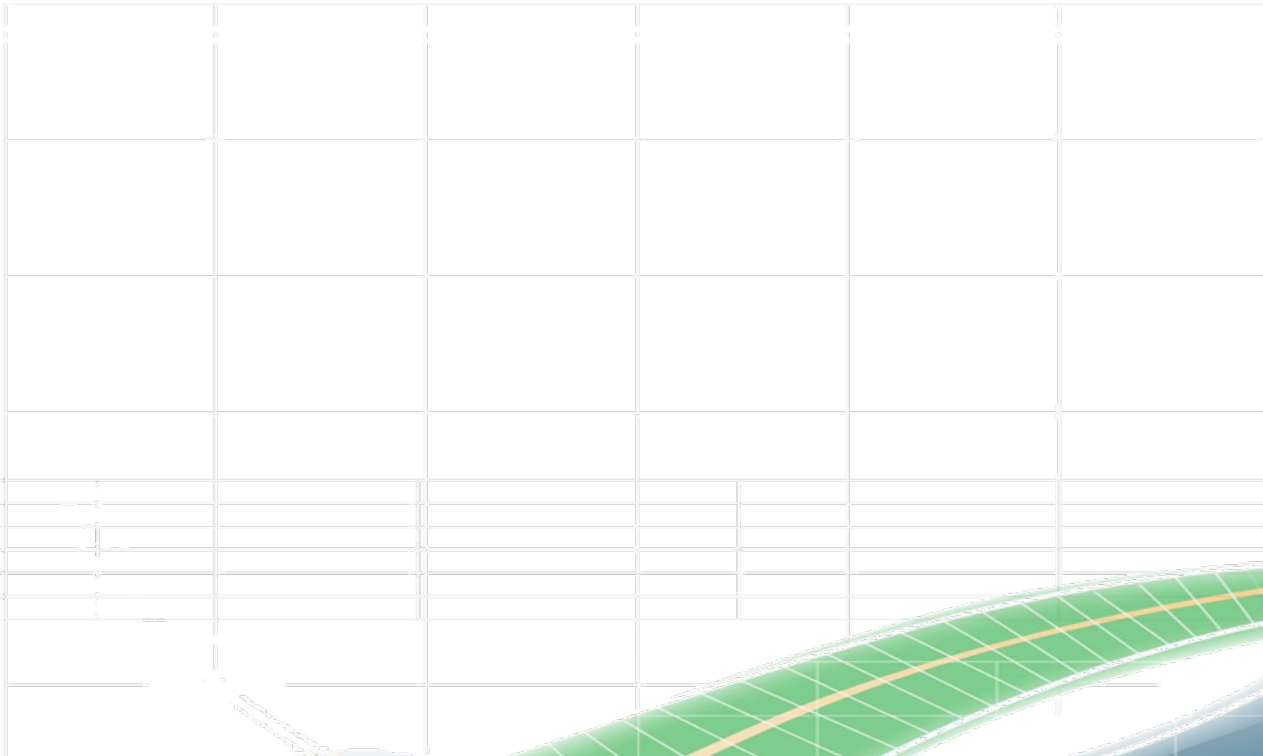
2005 Urban Mobility Report, TTI

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# What Do Our Customers Want?

- Travel smoothly

- ?
- ?
- ?
- ?
- ?



# Customer Expectations

- Travel smoothly and safely
- Be kept informed of conditions
- Timely information to make mode and route choices
- Goods moved efficiently and quickly
- Incidents detected and cleared quickly
- Efficient evacuations
- Coordination of construction projects

All with sensitivity to environmental concerns

*Preferably with no tax increases!*

# How to Meet Expectations

- Clearly not enough \$\$\$ to build our way out of congestion (and projected congestion)
- Must rethink approach to transportation investment – shift to mix of construction and operations

*While being aware of the “realities”!*

# Operations – What’s That?

SAFETEA-LU: An integrated program to optimize performance of existing and planned infrastructure through the implementation of multimodal and intermodal, cross-jurisdictional systems, services and projects designed to preserve capacity and improve security, safety and reliability.

AZ Operations Action Plan: Management of transportation systems and traffic flow to enhance safety and mobility through the application of ITS technology and regional collaboration.

# Operations Includes

- Traffic Incident Management
- Travel Information Services (for roadways and for transit)
- Freeway Management
- Automatic Vehicle Location for Transit
- Traffic Signal Coordination
- Work Zone Traffic Management
- Roadway Weather Information
- Electronic Payment (for transit, parking, tolling)
- Freight Management (ports and transfer areas)
- And coordination of highway, rail, transit, bicycle, and pedestrian operations

*Underpinned by regional operations collaboration and coordination*

# M & O Addresses Concerns

## TSM&O Strategies

- Traffic incident management
- Traveler information services
- Freeway management
- Traffic signal management
- Transit priority systems
- Work zone traffic management
- Road weather management
- Electronic payment services
- Freight management
- Special events planning



## Transportation Concerns

- Commuter congestion
- Traffic incidents
- Goods movement
- Special events
- Homeland security
- Emergency response & management
- Modal choices
- Work zones
- Weather

# How Is Arizona Doing?

TSM&O Strategies	Local	Metro	Statewide	Evacuation	Weather	ATIS	Security	Data
<i>Incident Management</i>	C/C/ B	C/C /A	B/D/B					
<i>Traveler Information</i>	C/B/ C	B/B /B	B/B/C					
<i>Freeway Management</i>								
<i>Traffic Signal Mgmt.</i>	C/B/ B	B/B /B	B/B/B					
<i>Transit Priority Systems</i>								
<i>Work Zone Management</i>								
<i>Weather Management</i>								
<i>Electronic Payment</i>								
<i>Freight Management</i>								
<i>Special Events Planning</i>								

# How Is Arizona Doing?

TSM&O Strategies	Local	Metro	Statewide	Evacuation	Weather	ATIS	Security	Data
<i>Incident Management</i>	B	B	?					
<i>Traveler Information</i>	N/A	B	C+/B					
<i>Freeway Management</i>	N/A	B	C					
<i>Traffic Signal Mgmt.</i>	B	C	C+					
<i>Transit Priority Systems</i>	C	C	D					
<i>Work Zone Management</i>	A-D	N/A	B					
<i>Weather Management</i>	B-	B	D					
<i>Electronic Payment</i>	B	B	D					
<i>Freight Management</i>								
<i>Special Events Planning</i>	A	B	N/A					

# Implications for Planning Process

## Traditional Planning Process

- ✓ Elected/appointed officials
- ✓ Collective regional plan development
- ✓ Long-term planning focus
- ✓ Near-term project funding
- ✓ Projects of local and regional significance
- ✓ Historical trends

## Planning Influenced by TSM&O

- ✓ Operations thinking influences vision and goals
- ✓ Measurable objectives identified
- ✓ Decisions engage operations managers
- ✓ Operations/capital mix optimized
- ✓ Performance measures reflect objectives
- ✓ Regional performance informs planning
- ✓ Regional concept(s) for transportation operations

Improving transportation *system* performance

# Implications for Transportation Operations

## Typical "O&M"

- ✓ Jurisdictional/Agency focused
- ✓ Maintenance oriented
- ✓ Peak-period focused
- ✓ Limited real-time information
- ✓ Targeted coordination for specific events
- ✓ Output-based measures



## Regional TSM&O

- ✓ Regional cross-jurisdictional, multi-agency, multi-modal system
- ✓ Real-time information sharing 24/7 to support operations decisions
- ✓ Deliberate and sustained collaboration and coordination
- ✓ Customer-focused performance measures
- ✓ Regional forums for collaboration
- ✓ Regional concept(s) for transportation operations

Improving transportation *system* performance

# Why Link Planning and Operations?

- Customer expectations for improved system performance
- New technologies, especially ITS
- Environmental, community and funding constraints
- Benefits of operational strategies, especially in the 3 – 5 year timeframe
- Federal requirement – “promote efficient system management and operations”

# Rationale for Including Operations in Planning Context

- More objective (rather than subjective) approach to addressing operations
- Focused transportation investment prioritization
- Improved resource allocation
- Increased accountability and measurement of performance
- Engaging the operations community in a more substantive way

# Vocabulary Matters

## What Do We Mean By Goals?

- Goal describes a desired end-state
- Illustrative M&O-related goals:
  - AZ DOT will optimize the operation of the state-operated highway system
  - The “X” region will provide a reliable regional transit system
  - The “X” region will ensure effective transportation responses to emergencies

# Vocabulary Matters

## Characteristics of Objectives

- **S**pecific. Sufficient to guide variable approaches
- **M**easurable. Quantitative measurement
- **A**greed. Consensus among partners
- **R**ealistic. Can be accomplished
- **T**ime-bound. Identified time-frame for accomplishment

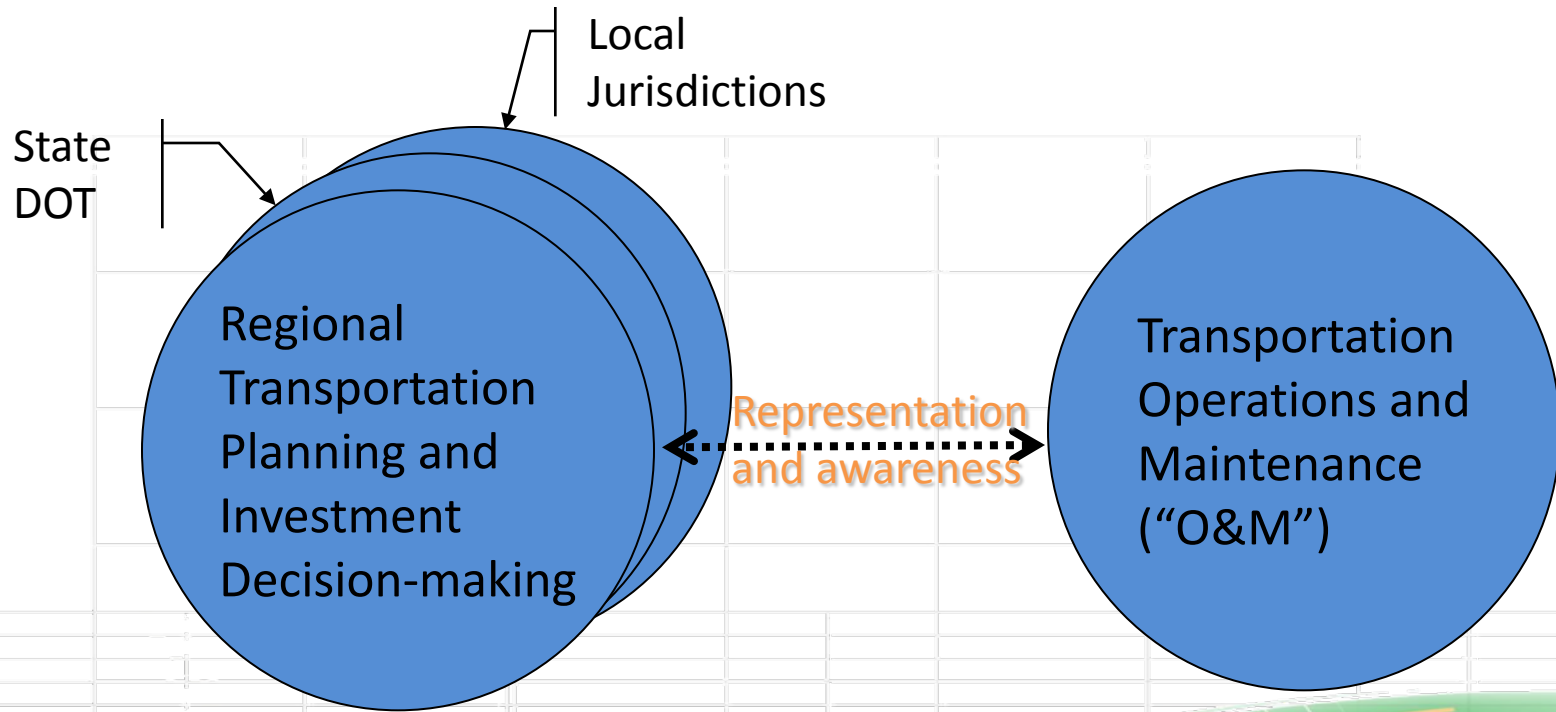
*Tough to do!*

# Examples of Operations Objectives

- By [year], reduce the clearance time of traffic incidents on freeways and major arterials from a current average of X minutes to an average of Y minutes.
- By [year], decrease average annual traveler delay associated with road closures, major incidents, and weather-related conditions on interstate highways by 20 percent from 2010 levels.

*Performance measurement requires quantifiable objectives (Tough to do!)*

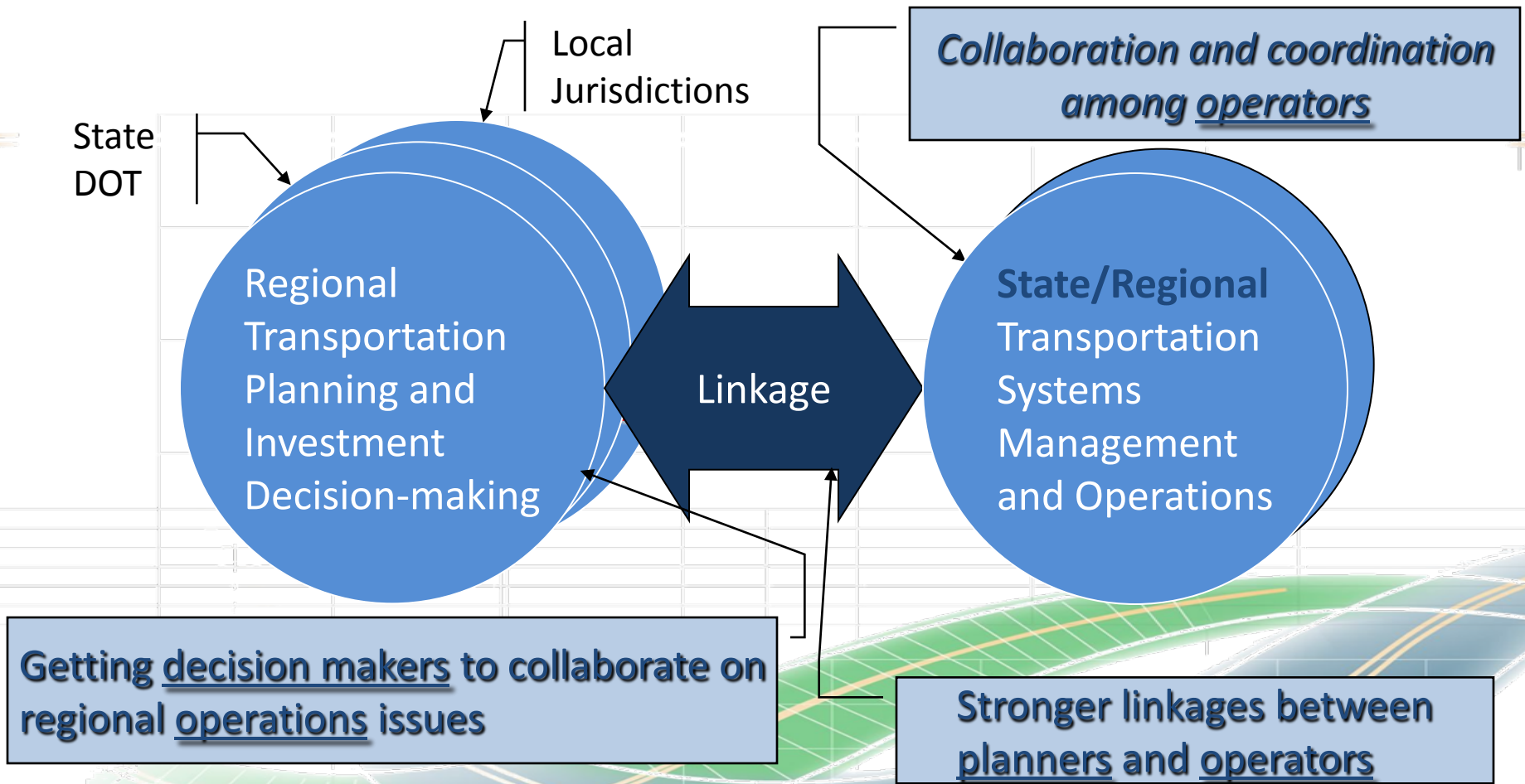
# Traditional Planning, Operating and Maintaining



# The “Cultural Shift” – Making It Happen

- **Build on current planning and collaborative processes**
- **Think M&O** – operational strategies to address challenges
- **Measure performance**
- **Link planning and operations**
- **Involve operators and users of system** (public safety, tourism, freight, etc.)
- **Create mix of capital and operations projects in investment decisions** (MTP, TIP, STIP)
- **Create institutional advocacy for operations**

# 21<sup>st</sup> Century!



# Implications of the “Cultural Shift”

- Decision makers need to collaborate on operational issues that have state and regional significance
- Must have deliberate and sustained collaboration among managers with day-to-day operations responsibilities
- Must exploit and strengthen the linkages opportunities between operators and planners.

# Outcomes of “Cultural Shift”

- Well-developed relationships among key agencies (state, MPO, public safety, etc.) and jurisdictions
- A shared vision among operators, planners, and public safety providers for transportation system performance
- More effective allocation of resources
- Enhanced information sharing
- Integration of state/regional systems and organizational processes.

# A Few Final Observations!

- Build on existing collaborative processes (e.g., MPO)
- Create annual report (state and MPO levels)
- Create advocacy for operations in the planning process (e.g., MPO M&O Committee)
- Don't expect non-planners (operators, public safety, freight, etc.) to be enamored with the planning process; engage in a focused and time-sensitive manner
- Don't make performance measurement more difficult than it need be; pick measures the public understands
- Stick to it; it will take time!

***Cultural shift to mixed investment approach won't happen unless you work to make it happen!***

# References

- Website: <http://www.plan4operations.dot.gov>
- Advancing Metropolitan Planning for Operations: An Objectives-Driven, Performance-Based Approach – A Guidebook: FHWA-HOP-10-026 (Expected May 2010)
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- The How: Case Studies Advancing Planning for Operations (April 2009)
- Regional Concept for Transportation Operations – The Blueprint for Action – A Primer; FHWA-HOP-07-122 (June 2007)

# Additional References

- The Collaborative Advantage: Realizing the Tangible Benefits of Regional Transportation Operations Collaboration, A Reference Manual; FHWA-HOP-08-001
- Regional Transportation Operations and Collaboration and Coordination, A Primer for Working Together to Improve Transportation Safety, Reliability, and Security; FHWA-HOP-03-008
- Getting More by Working Together, Opportunities for Linking Planning and Operations, A Reference Manual; FHWA-HOP-05-010

# Points of Contact

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