

Source: Shutterstock



Source: Shutterstock



Source: Shutterstock



Advancing Mode Options in Managed Lane Projects



Source: Shutterstock



Source: Shutterstock



U.S. Department of Transportation
Federal Highway Administration

July 9, 2020

Introduction and Overview

Jim Hunt, FHWA



Traveler Expectations are Changing with New Modes Available



511NY

March 10 · 🌐

The potential NJ Transit rail strike could cause serious traffic congestion and delays in the NYC metro area, starting next Monday, March 14. If you're concerned about the impact on your business or your commute, our partners at 511NY Rideshare can help. Go to bit.ly/njtransitstrike for alternate commute options in the event of a strike. Or call 511NY and say "Rideshare".



511 Wisconsin @511WI · 1h

Cleared | OCONTO Co | Crash | US 41 SB
| County S | All Lanes Blocked (One
Direction) | 511wi.gov

Sources (top to bottom): 511NY, Wisconsin DOT



Source: Shutterstock



Source: Shutterstock



Source: FHWA, Nice Ride Minnesota

Travelers increasingly expect to have **real-time, dynamic, actionable** information before and during their trip making

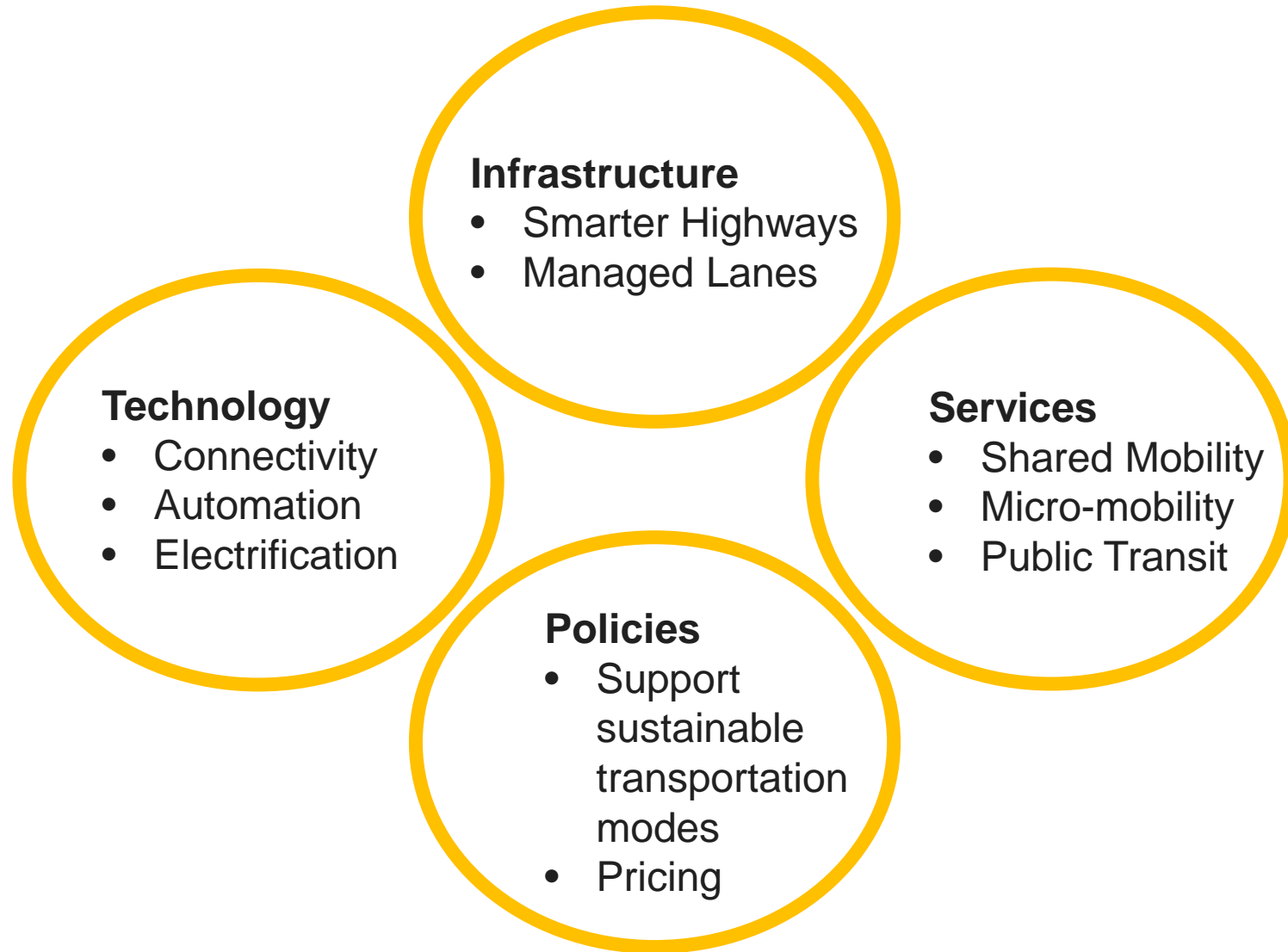
Travelers use more and different forms of transportation than ever before



U.S. Department of Transportation
Federal Highway Administration

Emerging Mobility Innovations

- Convergence and integration of infrastructure, services, technology, and policies leads to...
- New options, choices and efficiencies in personal travel for both residents and visitors in a community



Emerging Mobility and Managed Lanes

- Role of new Mobility on Demand (MOD) services
- Role of High Occupancy Vehicles (HOV) modes
- Role of subsidies and pricing
- Role of enhanced information
- Role of new players (e.g., Transportation Network Companies (TNCs) such as Uber and Lyft)
- Ability to fulfill objectives
- Impact on finances



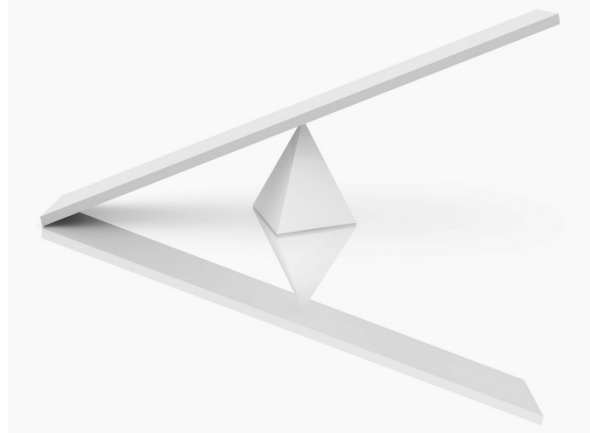
How can emerging mobility and contemporary approaches to systems management help fulfill managed lane objectives?



Balancing User Choices and System Efficiency

Users

- Choices
- Convenience
- Individual Delay
- Price
- Time Sensitivity
- Cultural/Societal Factors



Source: Shutterstock.

System Perspective

- Reliability
- Safety of Travel
- System Resilience
- Overall Delays
- System Efficiency
- Person capacity

Can emerging mobility options, enabling technology, and demand management enhance the overall effectiveness of managed lanes?



Webinar Purpose

- Provide an understanding of contemporary approaches for enhancing alternative mode options in managed lanes projects
- Strengthen the linkage between traffic operators, travel demand management (TDM) professionals, private sector, and transportation planning professionals in these corridors to take advantage of emerging mobility models
- Elicit discussion on other ways to enhance choices



Upcoming Presentations

- Overview of linking Emerging Mobility and Transportation Management
- Three regional examples that showcase various approaches to enhance travel options for travelers within managed lane corridors
 - Northern Virginia (I-66 and I-395) *presented by Ben Owen NVTC*
 - Los Angeles County (I-10 and I-110) *presented by Silva Mardrussian LA Metro*
 - San Mateo County (US101) *presented by Mary Thomasmeyer, commute.org*



FHWA Transportation Management Resources



TDM Publications and Reference Materials

https://ops.fhwa.dot.gov/tdm/ref_material.htm



U.S. Department of Transportation
Federal Highway Administration

FHWA Transportation Management Resources



FHWA ATDM Webpage

<https://ops.fhwa.dot.gov/atdm/>



FHWA TDM Webpage

https://ops.fhwa.dot.gov/plan4ops/trans_demand.htm



Capability Maturity Frameworks

https://ops.fhwa.dot.gov/tsmoframeworktool/cmf_overview.htm



Additional FHWA Resources

■ Upcoming Webinar

- Advancing Demand Management in Resort Towns and Communities
 - Thursday, July 23, 2020 11am-12:30pm ET
 - Register at: <https://www.eventbrite.com/e/advancing-demand-management-in-resort-towns-and-communities-tickets-110664045138>

■ Available Grant Programs

- Advanced Transportation and Congestion Management Technology Deployment Initiative (ATCMTD)
 - <https://www.grants.gov/web/grants/view-opportunity.html?oppld=327953>
- Complete Trip ITS4US
 - <https://beta.sam.gov/opp/09484974f0d04253b27f6469827ee4b5/view>



Opportunity for Leveraging Contemporary Demand Management and Emerging Mobility



Managed Lanes

- Managed lanes in the United States
 - High Occupancy Vehicle (HOV) Lanes (96)
 - High Occupancy Toll (HOT) Lanes (31)
 - Express Toll Lanes (ETL) (22)
- Most provides some preferential treatment for HOV and transit
- HOT lane projects often involved conversion of underutilized HOV lane
- Treatment of carpools varies across projects



Enhancing Alternative Mode Options in Managed Lanes

- Why Enhance Alternative Mode Options?
 - Person Throughput
 - VMT reduction
 - Emission reduction
 - Maximize choice
- How to Enhance Choices with Emerging Mobility
 - Information technology (traffic, mode/route options)
 - Rideshare apps
 - First/last mile solutions
 - Reward programs

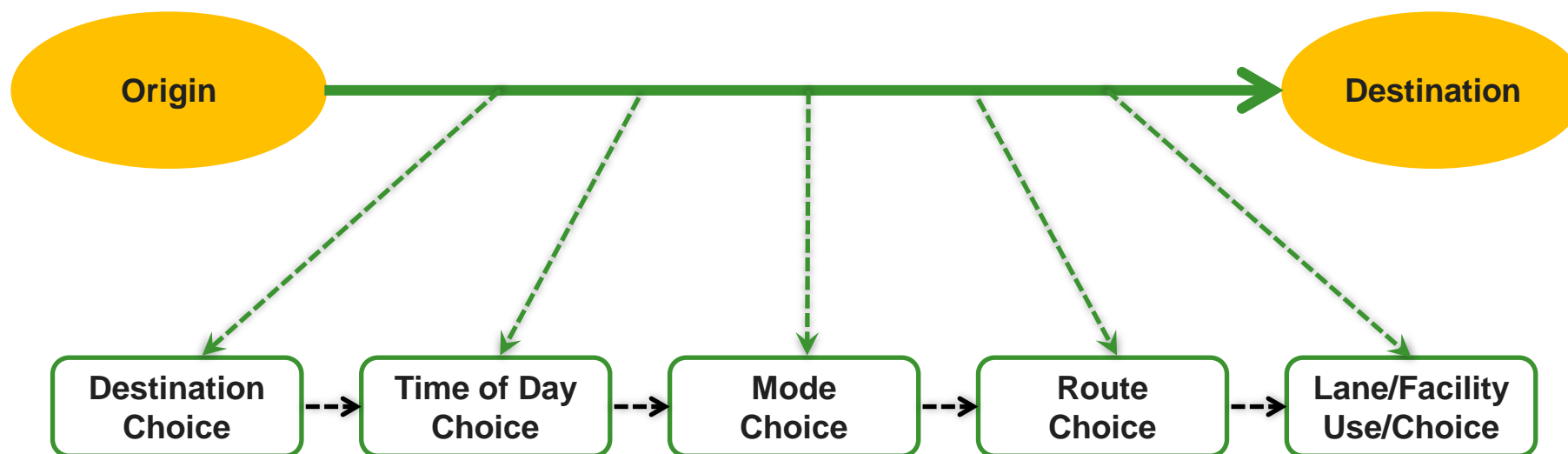


Source: LA Metro



Managing Demand Through the Trip-Chain

Approaches provide travelers with choices throughout the trip chain leading to network performance optimization and increased efficiency



Key Takeaway: Active management occurs before, during, and at the end of the trip chain



Mobility on Demand (MOD): The Vision

“MOD envisions a safe, reliable and carefree mobility ecosystem that supports complete trips for all, both personalized mobility and goods delivery.”



Providing Choices to Travelers

- Active transportation infrastructure
- Microtransit/On-demand shuttles
- Dynamic parking management
- Priority treatment for transit and carpooling
- Automated shuttles
- Incentives and Marketing

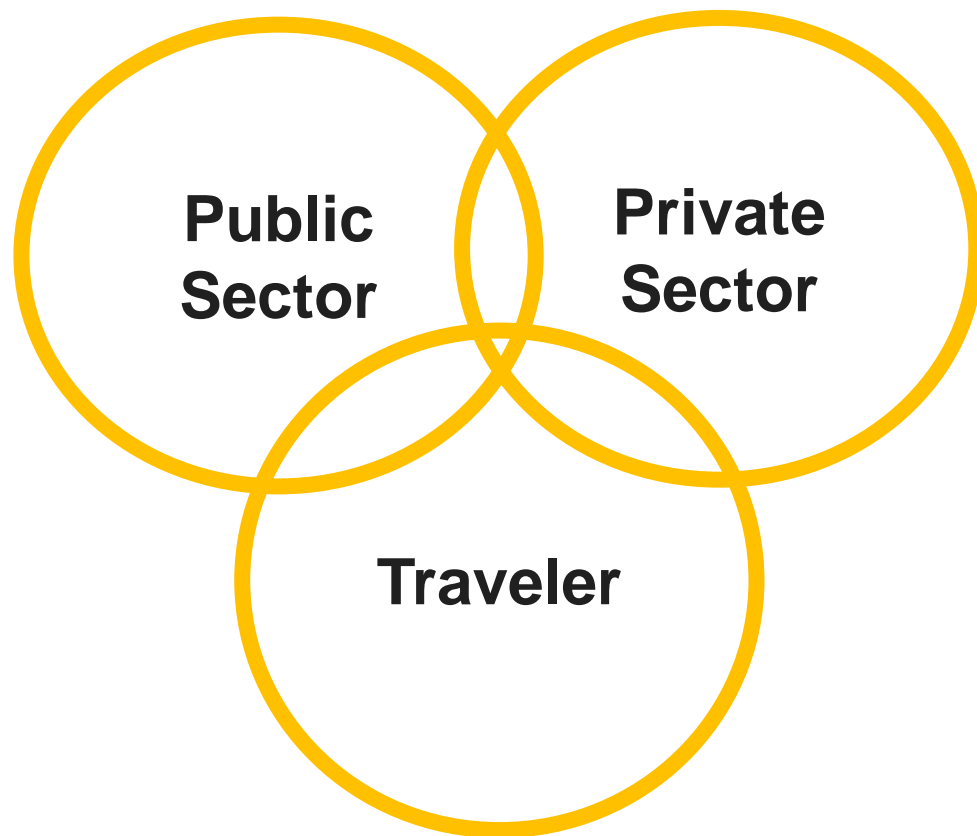


For Choices to be Effective

- A traveler or a potential traveler must
 - Be aware of available choices
 - Be able to make a choice in a convenient manner
 - Be able to trust in the reliability of the choice



Effective Choices Depend on Partnerships



=

Public – Public

- DOT/DOT Coordination
- DOT/Transit Coordination

Public – Private

- First and last-mile solutions
- Incentives

Public – Traveler

- Citizen Engagement

Private – Traveler

- Shared Mobility
- New Travel Options
- Incentives



The Opportunity

- Provide reliable and safe travel choices in an equitable manner
- Leverage synergies between programs that are historically silo-ed
- Adapt to changing environment that is blurring the lines
- Provide a framework for advancing integrated, holistic transportation management programs

