Keeping Up with the Rapid Evolution of New Mobility

ITE Joint Western & Texas District Meeting
June 26, 2018
Dominating the Headlines

Electric
Automated
Connected
Shared

Smart

City

Driverless
Delay

Autonomous
Infrastructure

Camera
Driving
Pedestrian

Congestion
Lidar
Motorcycle
Research
Intelligent
Integration
Sensor

Communications
Bus
Self

Vehicle

Reliability
Future
Change is Inevitable...

→ New technology in vehicles and carry-on/mobile

→ Attitude shifts regarding driving, car ownership, ride sharing, car sharing: new mobility

→ Evolution of transit services using new technology

→ Potential changes in land use policy and cost structure
Keys to Managing Change

1. Dialogue
2. Pilot Test
3. Document
Examples in Action...DIALOGUE

— Multi-Agency Working Groups
— A number of agencies have formed multi-disciplinary working groups to explore the future of CAV
— Some have created strategic plans, others have facilitated a process for companies that wish to test AVs on their roadways
— Federal Grant requests and unique programs (like Smart City Challenge) have helped push these working groups by giving them targets of opportunity
Examples in Action...PILOT TESTING

- Traffic Signal Data Sharing
- A number of municipal and county agencies are now sharing traffic signal data with one of several new companies that have approached them.
- The general preference is for the vendors to access the data at a centralized location to access more intersections at once.
- Third party vendors are sharing data with applications and vehicle manufacturers
Examples in Action...PILOT TESTING

— National SPaT Challenge

— Challenge state and local public sector transportation Infrastructure Owners & Operators (IO&Os) to **deploy DSRC infrastructure with SPaT broadcasts** in at least one coordinated corridor or network (approximately 20 signalized intersections) in each state by January 2020.

— Will better prepare each agency for future, more complex V2I deployments

— Message of commitment to automakers
Examples in Action... DOCUMENT

- US DOT publications from CV Pilots
- Strategic Plans from agencies
- Leveraging TSM&O plans for CAV planning and documentation
- Publishing best practices – SPaT Challenge, NOCoE website
- CAT Coalition white papers
New Mobility Now - A Practical Guide

- What is really changing?
- Long term visions
- Next steps
- Action plans

- International
- Authored by practitioners
- Informed by best practice
Challenges to being ‘Future Ready’

- Why think about change?
- What might change, how fast, and when, realistically?
- What do we really need to be worried about?
- Why are they applicable and what are the risks?
- Where could emerging solutions deliver benefits?

- How can we improve our services?
- How can we improve our networks and their operation?
- How can we improve the customer experience?
- How can we improve our housing, buildings and places?
- How can we rebalance space for people and vehicles?
Taking The Best Steps

Adapt existing – it isn’t all new

Find the local springboard(s)

Conscious collaboration

Map the “now”

Understand appetite

Finding the best, specific actions to create local solutions & benefits
Build on TSM&O Philosophy…

✓ Establish baseline/conduct self-assessment
✓ Understand motivation
✓ Establish clear definitions
✓ Identify champions/resources needed
✓ Engage key stakeholders
✓ Consider external forces

✓ Analyze and evaluate performance
Don’t Be Intimidated by the Unknown

— Public Sector: One size cannot fit all. Each town, city and country has a different start-point and context. The details of legal, political, economic, technological, environmental, social and ethical considerations matter, and will affect what is possible and desirable.

— Private Sector: We should embrace the inevitable variability in capability and maturity levels of different state, county, and municipal DOT’s when it comes to connected & automated vehicles.
Accept the Inevitable

A graduated approach occasionally helps avoid the problem of the over-prescribing policy, design, and operations.

“When faced with great uncertainty, it is almost impossible to get it right the first time.”

- Dr. Nidhi Kalra, Senior Information Scientist, Rand Corporation
Takeaways

✓ DIALOGUE: Some agencies are further ahead of others – mentor each other
✓ PILOT TEST: Don’t let the unknowns and complexities paralyze us
✓ DOCUMENT: While still many unknowns, we need to start factoring CAVs into all of our daily processes and future plans