Multi-State Peer Exchange: Communicating the Future of Transportation

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Overview

This multi-state peer exchange took place on April 10 – 11, 2017 in Denver, CO. The goal of the peer exchange was to discuss how communications can assist and enable transportation systems management & operations and transportation technology, in general. Specific topics included:

- Applying strategic communications to transportation operations
- Lessons Learned during communications planning, organizational integration and communications implementation
- How are communications programs focused on change management spectrum (Awareness of need for change, Desire to support and participate in change, Knowledge of how to change, Ability to implement required skills and behaviors, Reinforcement to sustain the change)
- Public Engagement Process (Planning, Research, Implementation)

Attendees, representing seven states, each presented on specific transportation topic areas where communications played a key role. After each presentation, other attendees than shared their respective experiences, including with the development of one-pagers, found here.)

Follow-up Activities

In addition the information and materials exchanged in person, it was agreed upon by attendees that several key concepts and resources should be developed and shared with the greater TSMO community. The National Operations Center of Excellence will coordinate the developing and sharing of these resources which will include:

Several NOCoE Newsletter items, including:

- Missouri's Strategic Communications for the 2017 Solar Eclipse
- California's Funding Success
- Arizona's Progress on Implementing their TSMO Program

Three webinars, entitled:

- TSMO Program Implementation: Lessons Learned and Key Practices from Arizona and Iowa
- Communicating Transportation: Successful Communications Strategies for Daily Operations, Technology Deployments, and Funding Efforts
- Social Media for the Transportation Agency: A Survey of How States are Leveraging Social Media to Reach the Traveling Public

As well as case studies on:

- California's News Flash Series
- Missouri's Internal Communication Tools

Attendees

Jim Windsor, Deputy State Engineer, Arizona DOT

Timothy Tait, Communications Director, Arizona DOT

Tamie McGowen, Assistant Deputy Director, Public Affairs, Caltrans

Amy Ford, Director of Communications, Colorado DOT

Megan Castle, Communications Manager, Colorado DOT

Ryan Rice, Director, Division of TSMO, Colorado DOT

Andrea Henry, Director of Strategic Communications, Iowa DOT

Fay Fleming, Director of Communications, Missouri DOT

Matt Hiebert, Assistant Director of Communications, Missouri DOT

Jeff Cranson, Director of Communications, Michigan DOT

Tamara Rollison, Public Affairs Director, Virginia DOT

Lloyd Brown, Communications Director, AASHTO

Patrick Son, Managing Director, NOCoE

Tom Kern, Senior Consultant, NOCoE

Adam Hopps, Program Coordinator, NOCoE

Proceedings

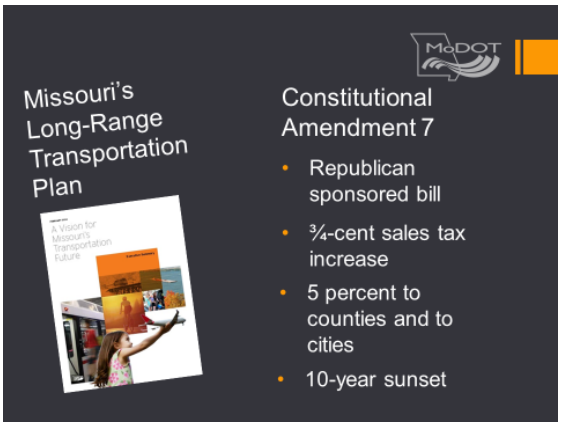
The following sections summarize the day and a half exchange among the communications experts, including featured slides and snapshots of materials, presentations notes, and key takeaways from the conversations that resulted. Much of the proceedings is captured in a structured manner where lessons learned and key takeaways are highlighted but there is also an attempt to capture the many dynamic conversations that resulted from the key takeaways. Finally, much of the information shared below is based on the presentations and materials developed by the attendees. The materials are featured throughout the document and direct links have been provided to specific items but all materials from the peer exchange are available, in full, on the NOCoE website.

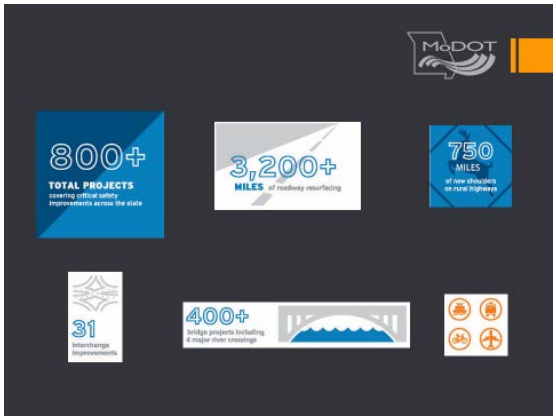
Overall Funding Communications – facilitated by Fay Fleming, Missouri DOT

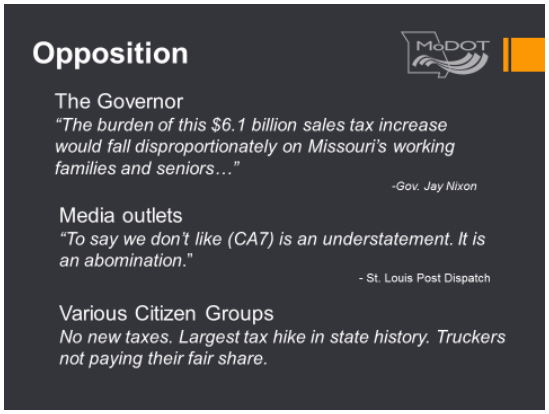
Fay Fleming, Missouri DOT, presented on Missouri's failed constitution amendment bill and the resulting transportation funding shortfall.

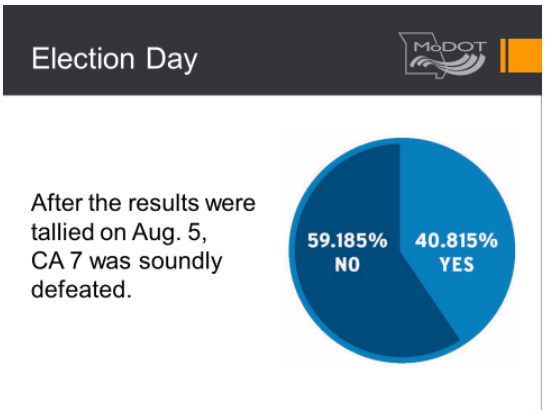
Despite significant infrastructure challenges, and possible inability to meet matching funds, the story evolved into something different:

- "If you have a 2.5 billion dollar budget and can't fix the roads and bridges it's a management problem"
- Truckers not paying a fair share of the cost
- After the loss of a statewide revenue increase, strategic solutions developed by Missouri DOT Communications team included:
    - Messaging Platform – approved messaging customized by audience-including Talking Points, PPTs, FAQs, etc.- updated in real time and electronically accessible statewide
    - Media Pulse – monitored media/comm channels to track statewide issues and trends
    - Watchlist – featured customized messaging and timelines for evolving issues









Takeaways from this experience

Audience 'Turn-ons'

- Statewide agreement of need
- Messaging focused on personal stories; citizen benefits
- Emphasis on:
  - Economic development
  - Safety
  - Mobility

Audience 'Turn-offs'

- Tax Increase
- Tolling
- Rural vs. urban

Optimization

- Key stakeholder agreements on revenue mechanisms (tolling, P3, increases)
  - Legislators
  - Media
  - Citizens

Lessons Learned

- Crisis doesn't sell
- A confused mind never votes
- Strategic communications tools that deliver real-time monitoring and metrics are critical
- You can increase impact by focusing on the head (Tough Choices Ahead) and the heart (What Really Matters)

Other Practices/Issues Shared by States on Communications for Funding:

Internal Communication:

- Missouri DOT brings in statewide communications managers for face-to-face meetings quarterly; maintains alignment through the Messaging Platform.
- Caltrans: District directors/board meets once a month. Quarterly meetings with PIOs statewide.

Agency and Public Perception Challenges:

- Directors have can have different visions which prohibit continuity
- Colorado DOT: big issue is where the vote takes place – referendum or legislation
- Sales tax on gas that funds schools pits roads against schools
- Ad agency had school buses going over bridges
- Other side focused on regressive nature of sales tax
- Colorado DOT: local taxes compete with state taxes.
- Virginia DOT: you have to build a base of trust that you can do the job (on time, on budget). Couldn't even answer the question of projects on time/on budget. Have to show you're doing the best
- Michigan DOT: Term limits create issues as do split party governments
- Michigan DOT: what are the differences between states that control all the roads vs very little? State systems become uneven when municipalities make improvements from small increases
- Discussing the statewide plan as a whole is difficult.
- Michigan DOT: when M-City opened, a reporter called asking why tax dollars went to this instead of roads.
- Live in an unprecedented time of distrust in government
- TSMO/technology focus provides opportunity: People vote for what they're inspired by. TSMO has improved metrics, prove express lanes are working. Juxtaposing the cool things that we're doing with the needs still out there. (If you trust us with your money we can do more of all these awesome things)

California's $54 Billion Transportation Bill

Tamie McGowen spoke about the California's recent transportation bill, recently passed by both legislatures and signed by Governor Brown.

Success of the bill due to:

- Year-long messaging approach and campaign
- Special session in 2016 on transportation
- Wet winter created damage that was highlighted (due to deferred maintenance)

Long term media blitz was part of the success:

- Turned the mission/vision of the Audio Visual unit into a 'News Flash' environment where Caltrans staff get out and talk about what's going on.
- 'News Dashes' – 30 seconds that show damage, needs, etc. Media used this as B roll.

<u>Audience turn-ons</u>

- Crisis did work due to winter, dam, bridge issues – so it was real (inconvenience instead of safety)

<u>Lessons Learned</u>

- Make the messaging more about benefitting the public and constituents and what's in it for them.
- Being responsible with the money!

Messages and Practices that work for funding:

- Arizona DOT: Key commerce corridors. PHX Metro Area (Maricopa County) has had successful funding initiatives (one-half cent sales tax increase from 1984, expires in 2024), island of excellence that is PHX/Maricopa county. People realize where the funding ends based on the roads. Started grassroots through the legislature – as long as it's a user fee and not a sales tax. Rural groups recognize PHX/Maricopa county is funding their own roads.
- Iowa DOT: Funding messages in 2008. Work was on the scare tactics – crumbling infrastructure, what the future looks like. As a rural farm based state there's a dense infrastructure (25,000 bridges) and 65% has less than 25 vehicles/day. There's a grid system of roads to get to family farms. Now the only people going over them are heavy farm machinery. The change in farming models creates a change in how infrastructure looks. Locals are responsible for maintenance.
- Virginia DOT: the story of the roads is important. Op-eds work well with big influencers and allows for strong messaging within the 'club' of key influencers.
- Colorado DOT: web based calculators on where funding going – map based system on projects. Was lacking in advocacy. Started statewide summits on transportation (biz leaders, transportation, industry) – transportation is exciting was the theme and things were kept optimistic.
- Missouri DOT's messaging tools provide controlled, district-wide communications.

Additional Thoughts:

- People have no understanding of who is funding and operating roads.
- Iowa DOT: urban vs rural issues based on operators and needs. Trying to tell the local story via web.
- Michigan DOT: country road association (rural) is important to stay in step with but recent funding package has helped locals. MML represents cities and is pushing multimodal. How to make the state more of community (people trust local but not state, i.e. getting local income tax to fix streets).
- California: never had an issue with innovation – people want to know that their state is on the innovative side.
- Iowa DOT: leverage partnerships with the universities and let them carry the message on the 'cool' stuff.
- AZ - Key commerce corridors: partners have been acquired over the last few years – chambers are carrying the messages and the collateral with a focus on rural areas (as a priority for the state). Repositioning transportation as a priority for the state. Emphasis east-west, north-south trade (one day from LB, most of lettuce/strawberries come from AZ).
- Colorado DOT: Three set message:
    - Save lives and make people's lives better
    - Be the best DOT in the country (use Utah as an 'enemy')
    - Benefits to you – the difference in your life

Three insights major insights from funding conversation:

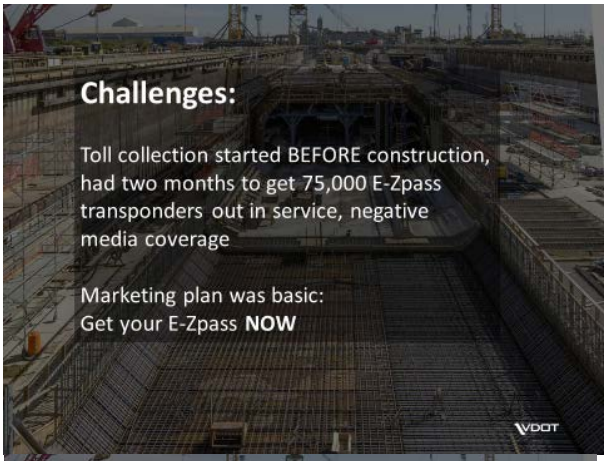
1. States are telling largely the same story. A continuum of progress entered at different points.
2. Crisis doesn't sell, except maybe when postured as personal inconvenience or imminent safety issues.
3. Focus on personal impact (not just stories, but true IMPACT).

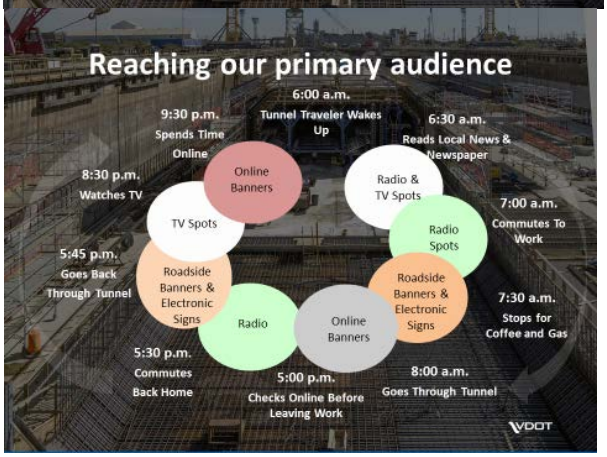
Funding/Ops Innovations: Tolling – Tamara Rollison, Virginia DOT

Tamara Rollison, Virginia DOT, presented on two tolling projects in Virginia: I-495 Bridge and The New Midtown Tunnel.

495 Express Lanes

New Midtown Tunnel





Additional Thoughts/Lessons Learned from Virginia toll road experience:

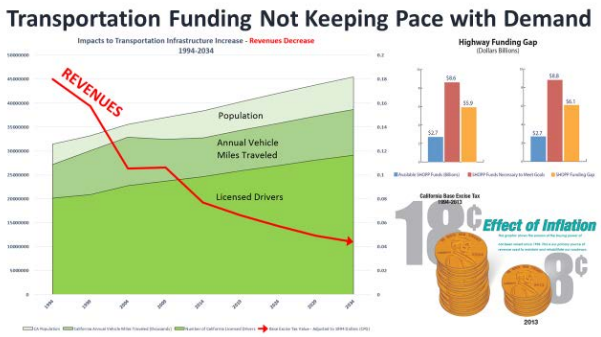
- Must gather stats, talk about benefits, and show a clear difference between past and future of roadways
- Choosing the right media buyer (knowing local markets) is really important
- Have to combat the 'Lexus Lanes' label for express lanes
  - in reality mostly Toyotas and Hondas in express lanes
  - reliability actually far better for those not using lanes
- Price express lanes so travel is reliable
- Talk about 'managed' lanes

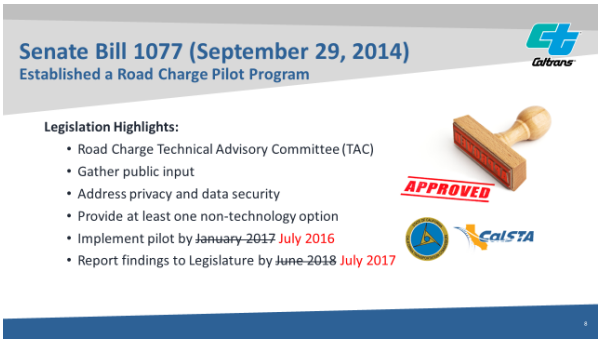
Additional Ideas/Input from other states:

- California has tolls lanes that are all locally owned and revenues go to locals. In 2015 just received authority to add toll roads where needed. Studies and plans are out there for various possibilities.
- How do you talk about benefits?
    - You must be gathering statistics and performance measures
    - Fight against 'Lexus lanes'
    - Don't even count individual lanes – count total output for all traveler – a total benefit for everyone (Colorado DOT)
    - Talk about the lanes in terms of **reliability** (as opposed to congestion)
    - Never talk about revenue first
- Are there managed lane policies in place?
    - Pricing
    - HOV
    - Ramp meters and ATM
- Tolling or express lanes can be part of that managed lane discussion. This connects to the TSMO aspect – it's about increasing management of lanes. Tolling is merely a strategy as part of that.
- Private money issue – misinformation regarding P3s and private involvement (what are the communications challenges? i.e. private sector backlash onto the state DOT)
- TSMO – started positioning the conversation in how we talk about managed lanes. Make sure all communications are focused on how the technology benefits the driver.
- **MANAGED LANES** IS THE KEY CONCEPT (it's not about tolls)

Funding/Ops Innovations: Road Usage Charge – Tamie McGowen, Caltrans

Tamie McGowen, Caltrans, presented on California exploring a Road Usage charge (RUC):





Strategic communications around this initiative was crucial. Example communication activities included:

- 'News Flash' videos available for media to use
- *Mile Marker* (Caltrans performance report)
- New releases at each district

- Social Media outlets
- Dedicate public relations liaison to news outlets
- DMV messaging (w/subtitles)
- Newsletters

Messaging that works:

- Gas tax great for 20th century but times are changing
- Consistent messaging between RUC States provides value on a national level to ensure the message is clear.

Of note: in general, privacy concerns seem to be dwindling, it's the perception of a double tax that is the largest issue around RUC.

Discussion Questions/Comments

- Is RUC something that will be integrated into Connected Vehicles (CV)?
- Who holds data? In CV, it's states where as RUC, its 3rd party.
- It's important as a state to say that you're thinking about the long-term future of your transportation network
- At first this appears like more active of a tax than the gas tax, but eventually charging methods will be hidden
- This can go so many different directions – technology could evolve beyond these questions

Funding/Ops Innovations: P3s – Megan Castle, Colorado DOT

Megan Castle, Colorado DOT, presenting on Colorado's P3 projects regarding the following:

Overview

Legislation in 2009 created the High Performance Transportation Enterprise (HPTE), a division within Colorado DOT with the ability to enter Public Private Partnerships and to finance projects. Colorado DOT and HPTE's first P3 project, the US 36 Express Lanes, focused on project communications focused on the multi-modal, first-of a kind benefits and did not educate on the new P3 financing aspects. Colorado DOT and HPTE recognize need to educate on public private partnerships and financing as well as the project.

Communications Planning

- Recognized need for financing/P3 education outreach to diverse community stakeholders
- Focus on critical messages:
    - What P3s are and are not
    - Funding mechanism option in constrained transportation budget
    - Taxpayer benefits - transfers financial risk to private sector

Organizational Integration

- Recognized need to develop an education outreach protocol for P3 projects

- Collaborative effort between Colorado DOT and HPTE to develop community outreach protocol for P3 projects
- Hired one person to manage along with communications consultant
- Also significant coordination with Governor's Office, Legislators, elected officials and Colorado DOT Office of Communications

Communications Implementation

- Created education campaign focused on Colorado DOT transportation funding:
    - Colorado DOT Transportation funding
    - Traditional vs Innovative financing methods
    - P3s (what and why)
    - Commitment to integrate P3 into project outreach
- Delivered P3 education outreach through multiple platforms
- Adopted and implemented Governor's Executive Order and HPTE Transparency Policy for P3

Lessons Learned

- Commit to communicate early, often and throughout P3 projects.
- Work in tandem with project team to integrate P3 messaging into outreach
- Ensure key stakeholders understand the financial benefits and possible risks, respond to questions that may arise (labor, jobs) with P3 projects
- Use non-Colorado DOT P3 projects to explain similarities and differences between projects
- Document!

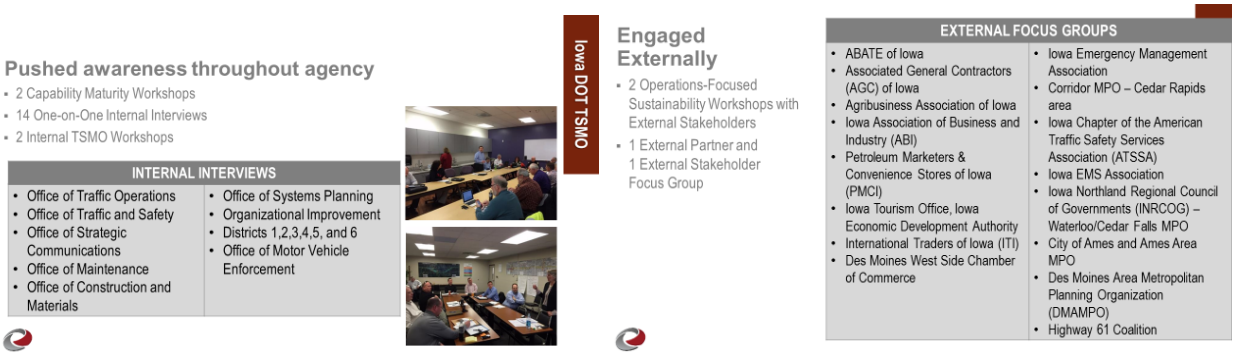
Discussion and Thoughts from other States:

- What determines the feasibility of a P3 project?
    - Traffic and revenue studies
    - Financial advisors evaluate
- Revenue is generated from tolls, but doesn't always go straight to the private operator, often paid via yearly operations budget.
- Colorado DOT: Communications aligned w/ environment or construction. No communications with financing or operations. Had to add in two new threads into overall communications.
- Caltrans: 3 P3's located on SR-91, SR-125, and the Presidio Parkway. Presidio Parkway is run by the Presidio trust so the nature of the organization makes the nature of the P3 difficult.
- Virginia DOT: issues with P3 involve not all projects are suitable for the kind of P3 being discussed here (though all projects are P3 in their purist form, since private sector builds). Many projects were mandated to be P3s and some bad projects were signed – mostly because wrong projects were used and VDOT wasn't prepared to 'negotiate' good deals with the private sector. Private sector ended up calling all the shots. The risk wasn't properly evaluated and the public lost money.
- Colorado DOT: Transportation commission must first tell HBTE to explore the process rather than letting private sector solicit (though that happens). Risk assessments are always executed before

- Can we do a P3 on behalf of other states? Where other states buy-in to the process.
  - AASHTO has a technical program service model to allow member states to buy-in
  - Instead of a pooled study is a pooled partnership.
- Where do universities come in, in terms of data management (Indiana, Texas, etc.)
- Texas A&M working with local areas to assist. TexDOT providing road system for the testing of their technologies. More academic driven and in a better position.
- Good news is a larger number of stakeholders there is a fairer amount of participation (as opposed to just one private sector partner)
- State DOT being a strong innovator and makes for the best P3s. (not allowing the private sector to drive the conversation)
- Thinking about how to talk to the public about P3 partnerships so it doesn't come back to bite you on ownership, data collection.
- Private sector often pushes back on the transparency issue and a message of TSMO is that the public sector involvement is very important.
- Is there an overarching viewpoint for this (like managed lanes) where partnerships in general are a part
- No matter who to blame for any issues – the DOT always accepts full responsibility
- Good communications and for-profit often do not align, let alone have the same goals.
- Back to HBTE structure – which allows for ensuring the new P3's there are very strict designations and layers about communications efforts (construction, community, etc.)
- Does NOCoE address innovative transportation funding opportunities? HOW IS THIS BECOME A TECHNICAL SERVICES
- NOCoE has the option to have both private and public sector involvement. More effective engagement of private sector in the TSMO development.

TSMO Planning and Integration – Andrea Henry, Iowa DOT

Andrea Henry, Iowa DOT, presented on how communications assisted Iowa's TSMO implementation:



Discussions and Thoughts from other States:

- How were projects messaged?
  - For construction, it used to be as quickly as possible, but it became as being better for you
  - Depends on the road and the users (don't interrupt a football game traffic)
  - It all appeared pretty common sense to the public (should we be doing this already?)
- Arizona DOT: we always did operations but they were more ad hoc (INTEGRATION/SYNERGISTIC) as opposed to TSMO.
- All the DOTs are at one point in the cycle – along the continuum. A lot that goes into this is about reputation building (smarter, safer, etc.). It will be new money for projects (even though its TSMO focused)
- Push back on DMS signs (message Monday programs/distraction)
- Colorado DOT: make a big deal of not holding onto footage
- Colorado DOT: NICE system works for TSMO focus but responding to requests takes resources.
- Arizona DOT: gains were in areas around Phoenix, expanding existing technologies (ramp metering, responsive and adaptive) and performance measures. Putting state troopers in the TOC has helped with declining lane closure times. Talk a lot about the TOC – media often there and sees the PIO, trooper interaction.
- As we become better in integrating technologies – always remind the media that this isn't easy. Easy for media and public to take for granted.
- Regular operations and outcomes results from TSMO – to communicate – (as opposed to specific programs). Not taking about regular benefits. Getting more out of the system we have (as opposed to funding for bottlenecks)
- Colorado DOT: strategies for construction but also expanding longevity to a project. "Benefits now, in a funding constrained environment, but also critical to add effectiveness and longevity to the projects." There's so much to explain. It's not as self-evident as a bridge. Use tools like clearance to show effectiveness. No ribbon cutting on thing – sometimes because they're waiting to see the effectiveness.
- Colorado DOT: 22 minute clearance of semi is a way to show effectiveness of a program.

- Patrick Son: Important to remember that these stories need to be shared at a national level to benefit states. Non-recurrent congestion is the catalyst for TSMO. But the public will take non recurrent wins and apply to recurrent congestion (where volume is the issue).
- Arizona DOT: looking at bottlenecks and making travel time improvements of up to 6 minutes on some corridors through bottleneck mitigation. But still hard to get into the planning side of the house, technology comes quickly and cannot afford to get in line on a 5-year STIP. Working with the Multimodal Planning Division planning division to integrate technology into the programming process for all projects. Need the ability and budget to implement technology quickly, but that budget doesn't exist – its currently the maintenance line item budget only. Need to get out in front of bigger projects. TSM&O needs to be a part of the PA review the process ahead of time. Once a project gets scoped it's difficult to get changes/technology added in.

Change Management Can Be Key Part of Implementing a TSMO Program

Colorado deployed an internal change management program to assist with the implementing a TSMO program. Lessons learned included:

- Defining common goals, processes, and performance measures is key ensuring all staff understand the direction the agency is moving
- Relationships with partners, including law enforcement, regional governments, and other stakeholders much be managed from the beginning.

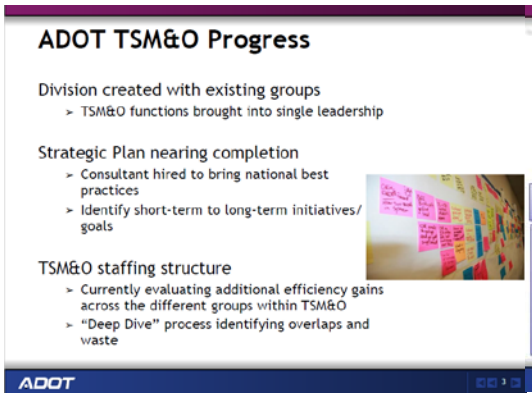
- Colorado DOT: the TSMO evaluation (ITS, safety, operations assessment) is a tool implemented on all projects. Evaluation the whole process and program to see if recommendations are being implemented, look at gaps . . . Took a lot on the messaging/change management. Called an 'operations clearance' – not intending it to be as rigid as an environmental clearance. First responder safety and other key milestones being focused on. On the planning side, a TSMO statewide plan was created. Revising ITS architectures (with connected/autonomous lens) and try to make that a living process to keep that fresh and avoid obsolescence and keep stakeholders engaged (since they're tracking innovation as well).
- Patrick Son: In Iowa you've been able to institutionalize across department. What are the pushbacks you got back in the planning area?
- Iowa DOT: Planners are harder to get on board – and rhetoric sometimes doesn't even match actual plans.
- Taking a practitioner level up to an organizational recognition. (this is what happened w/ communications)
- Biggest benefit to fully integrated TSMO program is implementing strategies to get synergistic benefits out them.
- People get inspired by getting left behind:
- How can states help each other market TSMO success? How can the AASHTO Subcommittee on Transportation Communications be utilized?

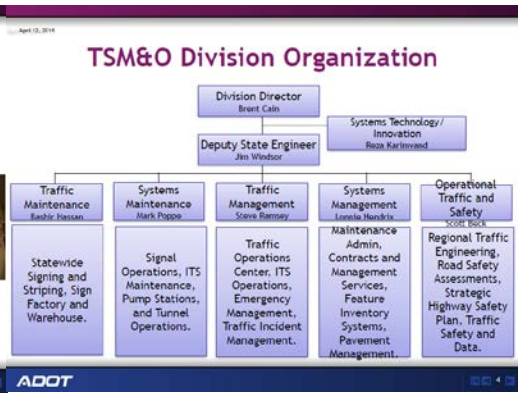
- For NOCoE core audience is practitioners. What comms are doing in terms of change management is key for NOCoE. Need good solid content. How you're communicating operations is something to be plugged into. Iowa monthly updates are an example.
- . . . the internal change management is something difficult for us to capture. Should we be starting with communications?
- At Colorado DOT we have a change management group who works with process improvement group, and their sole focus is change management from process and operations and work with SMEs to facilitate that process from the ground up. TSMO went through that whole process. Emphasis on pairing it with the change management side of things (WEBINARS, CASE STUDY) – they're another division that's with process improvement. Managers and supervisors go through change management sessions. Been helpful to get buy-in from internal stakeholders. (not a silver bullet but still necessary)
- What Iowa showed is change management – though it wasn't called that.
- Arizona DOT: challenge dealing with finalizing strategic plan. Challenges with rural Districts and Counties. On the public side did a news release and public story just to demonstrate reorganization.
- Colorado DOT: Did not doing anything externally around overall change but focused more exclusively on I-70 corridor improvements and focused on principles being applied.
- Iowa DOT: Haven't really rolled it out to the public – just constantly focused on operations. People don't get it, so focus on good practices rather than new programs.
- FHWA pushes this as well – like TIM and other strategies to help states improve.
- Operations communications spectrum – how do you conceptualize operations
- ITS, Safety, traffic operations, communications – start telling that cohesive story.
- How do Comms start supporting - a: change management.
- Interesting outcome of this workshop could be defining the continuum (and being able to visualize it). Operations, collaboration, communications. Is funding a horizontal.

JUST MARKET IT! And build the audience within the DOTs and give each audience a path forward.

TSMO Program Implementation – Arizona DOT

Jim Windsor and Timothy Tait of Arizona DOT presented on Arizona's TSMO program implementation:





Communications Successes with TSMO:

- Ramp metering – have honed in on how to communicate overall benefit to travelers
- Quick clear policy that allows car removal.
- Media success on zipper merge where they started using b-roll.
- Story of Arizona State trooper describing TIM on live TV show as he's directing traffic around a crash
- Embedded traffic report in TMC
- Twitter is use frequently, though not with an autobot
- PIO's are integrated into operations
    - Take TIM training
    - Work closely with law enforcement and operations staff

Discussion:

- How large are peoples communications staff, and across how many districts?
    - Colorado DOT: 22 people in 5 districts
    - Caltrans: 21 in HQ, 60 in 12 districts
    - Michigan DOT: 7 regions – 23 people, one in each region (includes mapping, graphics, video)
    - Virginia DOT: 9 districts – central has 20 people with 50 – 60 in total
    - Arizona DOT: 42 staff in 6 districts
    - Iowa DOT: 12 in central, one in each of the six districts
    - Missouri DOT: 65 people overall in 7 districts
- Need to show communications on TSMO organization charts

Technology Planning and Implementation – Amy Ford, Colorado DOT

Key thoughts from RoadX project:

- How do leading states actually lead – make investment w/ Panasonic where other states can join in.
- Technology becomes transformative part of the agency
- Develop models for capitalizing technologies
- Can't build out further than five years – quit focusing on planning when it's about adopting
- State DOT holding the public impact (private sector does not)
- Classification of roads (like autonomous) NCHRP project
- Redefining roles and responsibilities is the opportunity
- Communications working with operations to move people and goods. Communications is integral to the mission of DOTs.
- Communications is important into the trust aspect of new initiatives and operations.
- Stewards of the system that the citizens own and pay for.
- Chief experience officer – how do customers interact with our product, bland, employees?
- Experience office - how to maximize the experience of using the transportation.
- Moving people instead cars. Customer is not the road.
- TSMO not about crisis – overall roadway management.
- The most valued engineers are the ones who are good communicators.

Discussion on TSMO and Communications:

- Tom Kern: Struggled around the taxonomy of TSMO. TSMO actually captures the mission of most DOTs. While TSMO is maturing it allows the comms side to develop a taxonomy that targets the user experience of it.
- Outward facing branding can help with well-intended legislators
- Patrick Son: TSMO as a brand for practitioners is just fine. Outward facing and public it's not necessarily a single brand, maybe it's the concept or ideas that are internalized by DOTs and properly communicated to the public.

- Looking at TSMO services and how those are branded and what common language exists in various states and why.
- Outward: Maximizing the safety of the traveler and Inward: stay with TSMO
- In-between: elevate the role of operations to the customer understands how you're working to maximize their safety. Strategically look services and how they're branded to achieve outward facing goals.
- Colorado DOT: most of the RoadX projects were started under TSMO and stacked and expanded into RoadX.
- Branding Issues:
    - Not branding the project in Iowa with HERE. Been hard to talk to the public about it and there's nothing to show for it.
    - CO: Only brand if you're turning it into an entire program. It gives it the cache and systemic influence
- Michigan DOT: Planet M – needed to support the state's biggest industry. Goal was to demonstrate that government has the greater good at its heart. Collaboration is really good, not a lot of turf wars. The idea of 'America's Proving Grounds'. Planet M is a really big umbrella

Preparation for advanced vehicle technologies:

- Revolutions that will need to happen for the MUTCD – the rulebook that guides signing.
- Other thing to consider:
    - Snow plow impacts
    - Pavement impacts
    - Citizen interest – the DOT, private sector, regulatory – technologies will be
- Colorado making effort not to be over regulatory
- California: work closely with the DMV's PIO office. Don't have a lot to tell, kind of preparing with better striping, removal of botts' dots, been almost entirely project-based or policy.

Was there any push back from the public?

- Michigan DOT: Public wants to be more productive about infrastructure so legislators are more supportive.
- CO: RoadX may not be a part of the next legislative package – but fiber and other items will be. Put together a package about fiber and things that connect the fiber (data)

Concluding thoughts on TSMO/technology innovations:

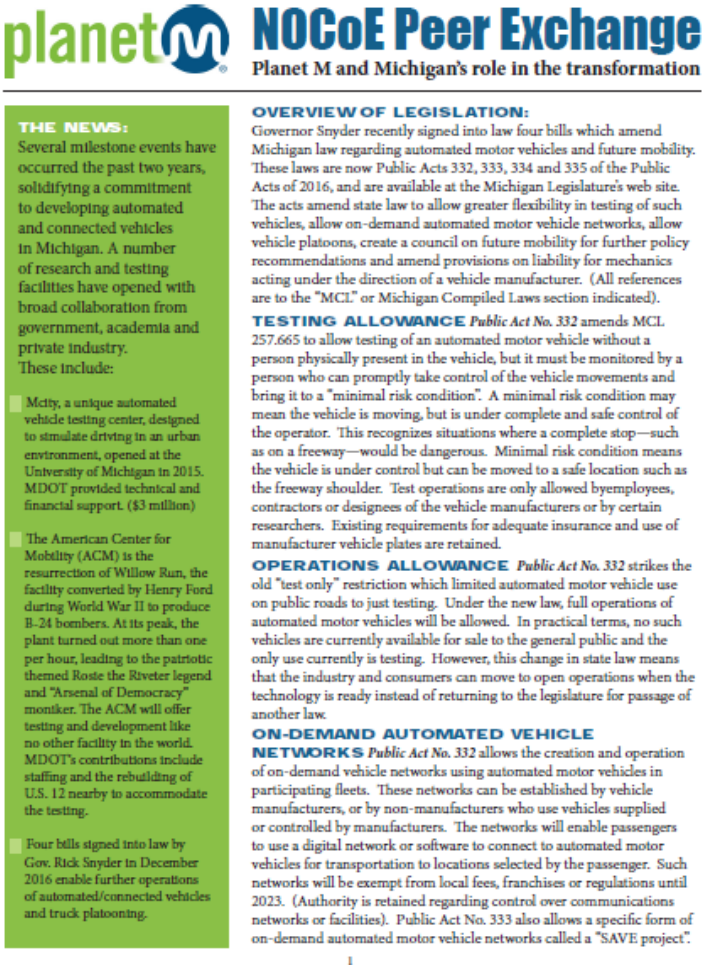
- Communications needs to be at the table
    - Think collectively about activities
    - Keeping a customer experience perspective
- How new technologies are discussed is very important – DOT must have a role in this – communications getting involved to tell this story as forward thinking and innovative. How you roll up all the activities into a larger customer x piece in really important. If you the comms side

doesn't get in front of it than DOTs won't be included in the '3 legged stool' (site: how the public trusts COLORADO DOTs in the survey)

- Rolling technology surveying into customer feedback part could be useful to justify or validate potential technology programs. (i.e. such as the word SMART)
- Michigan DOT: Newsroom mantra is always 'make the reader smarter'. DOT communications should almost be the same thing – make the public smarter.
- Thoughts on strategizing communications plans to point to other state activities (wanting to join the club)
    - MI: Safety is often the driving force behind all these initiatives.
    - MO: Individual is more of the driving force . . . but crafting the spectrum and mapping it out in terms of tiers could actually help. Especially considering that things are moving toward conformity.

Technology Implementation – Jeff Cranson, Michigan DOT

Jeff Cranson presented on Michigan DOT's Technology Implementation Initiatives, captured below:



planetM

NOCoE Peer Exchange

Planet M and Michigan's role in the transformation

THE NEWS:
Several milestone events have occurred the past two years, solidifying a commitment to developing automated and connected vehicles in Michigan. A number of research and testing facilities have opened with broad collaboration from government, academia and private industry. These include:

- Mcity, a unique automated vehicle testing center, designed to simulate driving in an urban environment, opened at the University of Michigan in 2015. MDOT provided technical and financial support. ($3 million)
- The American Center for Mobility (ACM) is the resurrection of Willow Run, the facility converted by Henry Ford during World War II to produce B-24 bombers. At its peak, the plant turned out more than one per hour, leading to the patriotic themed Rosie the Riveter legend and "Arsenal of Democracy" moniker. The ACM will offer testing and development like no other facility in the world. MDOT's contributions include staffing and the rebuilding of U.S. 12 nearby to accommodate the testing.
- Four bills signed into law by Gov. Rick Snyder in December 2016 enable further operations of automated/connected vehicles and truck platooning.

OVERVIEW OF LEGISLATION:
Governor Snyder recently signed into law four bills which amend Michigan law regarding automated motor vehicles and future mobility. These laws are now Public Acts 332, 333, 334 and 335 of the Public Acts of 2016, and are available at the Michigan Legislature's web site. The acts amend state law to allow greater flexibility in testing of such vehicles, allow on-demand automated motor vehicle networks, allow vehicle platoons, create a council on future mobility for further policy recommendations and amend provisions on liability for mechanics acting under the direction of a vehicle manufacturer. (All references are to the "MCL" or Michigan Compiled Laws section indicated).

TESTING ALLOWANCE *Public Act No. 332* amends MCL 257.665 to allow testing of an automated motor vehicle without a person physically present in the vehicle, but it must be monitored by a person who can promptly take control of the vehicle movements and bring it to a "minimal risk condition". A minimal risk condition may mean the vehicle is moving, but is under complete and safe control of the operator. This recognizes situations where a complete stop—such as on a freeway—would be dangerous. Minimal risk condition means the vehicle is under control but can be moved to a safe location such as the freeway shoulder. Test operations are only allowed byemployees, contractors or designees of the vehicle manufacturers or by certain researchers. Existing requirements for adequate insurance and use of manufacturer vehicle plates are retained.

OPERATIONS ALLOWANCE *Public Act No. 332* strikes the old "test only" restriction which limited automated motor vehicle use on public roads to just testing. Under the new law, full operations of automated motor vehicles will be allowed. In practical terms, no such vehicles are currently available for sale to the general public and the only use currently is testing. However, this change in state law means that the industry and consumers can move to open operations when the technology is ready instead of returning to the legislature for passage of another law.

ON-DEMAND AUTOMATED VEHICLE NETWORKS *Public Act No. 332* allows the creation and operation of on-demand vehicle networks using automated motor vehicles in participating fleets. These networks can be established by vehicle manufacturers, or by non-manufacturers who use vehicles supplied or controlled by manufacturers. The networks will enable passengers to use a digital network or software to connect to automated motor vehicles for transportation to locations selected by the passenger. Such networks will be exempt from local fees, franchises or regulations until 2023. (Authority is retained regarding control over communications networks or facilities). Public Act No. 333 also allows a specific form of on-demand automated motor vehicle networks called a "SAVE project".

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Key Discussion points that arose:

- Use the term automated over autonomous or driverless
- Car ownership models – increased use of shared vehicles needs to be addressed
- How are agencies approaching innovative technologies differently?