MAASTO CAV Summit Round Table Discussion Top Take Aways

Table #1 – What CAV regulation(s) should be the responsibility of the federal government vs. what should be under state/local control?

1. Federal government guidance
2. Federal government traffic control devices/definitions
3. State control: traffic laws, equipment

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1. ADS/ADAS should be considered equipment – need to be established and regulated by the fed gov
    a. Not so state tests or requirements
2. Local traffic laws can be retained – Avs need to learn
3. Who controls messages into vehicles?

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1. AV Approval remains with state & local control

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1. State's domain is regulating the driver
2. Fed regulation on data governance and insurance
3. Fed – standards and specifications to help/digital twin @ federal level

Table #2 – How do we improve the public perception and acceptance of CAV projects and concepts in the MAASTO region?

1. Focus on building knowledge (not focused on acceptance) of mobility options.
2. Creating consistent public messaging adopted by all MAASTO states on CAV
3. Be transparent about technical limitations – Don't oversell
4. Greater highlight & connection between the state and local communities in MAASTO (State, counties, cities, local)

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1. Be strategic about how its positioned and deployed and how to communicate about it.
2. Focus on tangible benefits for today!
3. Get the public involved - be part of the solution.

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1. Demo projects that actually fill a transportation need so the public will use it.
2. Expose college students to CAV to encourage acceptance but also build work force.
3. Continue to educate on the transportation funding gap that its not just aging infrastructure but a need for smarter infrastructure.

Table #3 – Are there unique challenges or opportunities for CAV initiatives in MAASTO as compared to other parts of the country?

1. Unique position for freight movement (US/Canada)
2. Better synergy with OEM, Tier 1 private car manufacturers

3. Unique mix and distribution of urban and rural communities
4. Political climate?
    a. Collective regulation framework vs stand alone
5. Rural communication/agricultural challenges

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1. Challenges
    a. Weather (winter snow/wind, fog, etc.)
    b. Many small communities that have unique challenges
        i. Resources, connectivity, farm implements, horse and buggy
2. Opportunities
    a. Major intercity (interstate) corridors that can be initial focus to expand in the future
    b. Ability to pursue multistate funding opportunities

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1. MAASTO has history of working together on issues/get 10 states together to push initiatives
2. Challenges
    a. Rural
    b. Weather
    c. Education/outreach
    d. Encourage urban sprawl
3. Opportunities
    a. Many
    b. Open stretches for testing
    c. Other areas (ag) may encourage automation
    d. Easier to add broadband fiber

Table #4 – Do we see different approaches for CAV initiatives related to different vehicles, such as cars, shuttles, small trucks, large tracks?

1. Need to maintain normal operations/objections of a DOT while inverting and moving to a CAV world.
2. Each vehicle type requires a different approach, but the DOT needs a cooperative collaboration.
3. Each initiative has a different KPI. Need to ensure benefits of investments are there to balance needs of maintaining other assets
    a. Can't take away from core function
4. Need to find existing business processes that enabling CAV initiatives can support. Those business processes differ for each.
5. Focus on vehicles they are appropriate for each agency
6. Testing needs to be done across all demographics
7. Continue to pilot, collect data, validate use case and expand
8. Different modes have different policy issues
    a. Labor
9. Missing modes
    a. Maintenance vehicles, etc.

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1. Tailor approaches based on market segment level of engagement/incentives
    a. Freight industry is profit driven
    b. Inclusiveness for rural communities

2. Adopt a holistic approach to policy making
3. Educate policy makers about competing interests/needs

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1. Identifying the mobility problem first
    a. ensure we are focusing on the problem
    b. not creating more problems
2. Ensuring the evaluation/metrics of the problem/technology to ensure we are addressing the defined problem
3. Ensure we understand the tech/CAV initiatives safety benefit so we can succinctly communicate the benefit to the public
4. Ensuring we are informing/educating on limitations

Table #5 – How should MAASTO states prioritize investment in CAV projects amongst other state DOT needs and programs?

1. Understand CAV preparedness across assets, policy, business practices
2. Integrate CAV asset improvements with traditional construction.
3. Focus on obtaining explicit funding for CAV to avoid degrading other assets

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1. Work on research to obtain data for Cost/Benefit to then take to legislature.
2. Then have them approve budget with maintenance and capital cost considerations.

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1. Must deliver DOT purpose
    a. Smooth roads
    b. Safe bridge
    c. Traffic flow
2. Incorporate enhancements to accommodate CAV/ADS/Connect
    a. 6” stripes
    b. SPAT signal data => vehicles (smart signals)
    c. Maintenance/Construction trucks => alerts to motorists (HAAS alerts)
    d. ITS/TSMO Real Time Travel Data => alerts into motorist vehicles
    e. Get existing data into all vehicles
        i. For human drivers now
        ii. For ADS advancements
3. Maximize MAASTO’s acquisition of federal funds to advance CAV
4. Financial partnerships DOTs and large partners located in MAASTO
    a. OEMs
    b. John Deere
    c. Caterpillar
    d. State Farm
    e. Etc.

Table #6 – Are there tangible opportunities for CAV in rural areas? Are the costs or benefits different than in urban areas?

1. FTA dollars for USPS Delivery*
2. There are definitely different costs or benefits for urban vs rural

3. Pickup service for people that cannot drive

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1. Rural Data/Robust testing for CAV
2. Rural Human Behavior
3. Cost to Implement Infrastructure*

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1. identify problem 1st

Table #7 – Will CAV actually make highway travel safer? Will it be safe during the development and transition stages?

1. Safer depends; many factors and circumstances

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1. Connected vehicle alone will unlock a lot of safety potential
2. Transition stage may be less safe than today (over reliance on automation)
3. As automation increases, will there be a threshold where CAVs are shut down (like grounding a plan) when something goes wrong.

Table #8 – How do we collect and share AV data? What is public vs. private and are state DOT systems ready?

1. What data do the DOTs need/What problems are the DOTs trying to solve with this data?
2. Need data and mapping standards
3. Standardization data platforms/systems?
4. Problem -> Standards -> Systems

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1. Need to address pertinent data. What is the data we need and how to we keep it from overwhelming data transmission and management systems.
    a. Do we need to keep it all?
2. Need business processes for new data to turn new sources into relevant data and information
3. Need to address who manages data ->public or private?

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1. Build a MAASTO Coalition to purchase and collect data.
2. Inventory of infrastructure
3. Challenge to overcome ability to collect, store, secure data

Table #9 - How do we build cross-agency communication on CAV with law enforcement, local government, DMV, others?

1. Statewide CAV Steering Group - Follow the Best: WisDOT(?)
2. Statewide CAV Steering Group - Internal State Agencies Steering Group (DOT, DMV, State Patrol)
    a. Then invite external (Academia, ITS Industry, Industry (Economic (i.e. trucking, OEM, CAV, Law Enforcement)), Legislators, Non-Drivers,
3. Motivate: 2a. to support state/fed funding or receive permission to pilot CAV
4. Education/Listening: Bring experts to your statewide CAV Steering Group
5. Multi-State => MAASTO

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1. Identify stakeholders/points of contacts*

2. Create Diverse set of POCs*
3. Determine Roles for POCs (RACI Matrix
4. Create central site for content
5. MAASTO contact point for CAV/newsletter
6. AVSC consortium to connect to OEMS (talk to Aurora)