MEETING NOTES Iowa Advisory Council on Automated Transportation (ATC) Economic Development (EcDev) and Infrastructure Readiness (IR) Joint Subcommittee Meeting

Tuesday, May 24, 2022 1:00-2:00 pm CT

Action Items:

- The EcDev and IR subcommittees will continue to align and engage together and with other ATC subcommittees to determine where advanced deployment opportunities may be and pursue them accordingly
- 1. Welcome and introductions Erin Mullenix, Policy & Legislation Subcommittee Chair
 - a. Attendees 34 attendees
 - Erin Mullenix Iowa League of Cities (IR Chair)
 - Brittney Kohler National League of Cities
 - Heather Thomas Marshalltown PWD
 - Rob Denson Des Moines Area Community College
 - Mark Nahra Woodbury County
 - Ray H. Warner Aureon
 - Brian Keierleber Buchanan County
 - Eric Porter Iowa Communications Network
 - John Gibson Iowa Division of the Federal Highway Administration
 - Mark Pohlman HDR Inc.
 - Abbie Christophersen Iowa Economic Development Authority
 - Erik Minge SFR Consulting
 - Mickey Shields Iowa League of Cities
 - Blake G. Hansen Olsson
 - Dave Ness City of Dubuque
 - Rob Denson Des Moines Area Community College
 - Neal Hawkins, Skylar Knickerbocker, Jonathon Wood Iowa State University
 - Dan McGehee, Omar Ahmad, Jacob Heiden, Cherie Roe University of Iowa, National Advanced Driving Simulator
 - Andrea White, Jim Schnoebelen, Tim Simodynes, Mark Van Dyke, Garrett Pederson, Andrew Lewis, Benjamin Hucker, Newman Abuissa, Madeline Schmitt, Clayton Burke, Donna Matulac, Adam Shell – Iowa DOT
 - b. New members
 - i. Mark Pohlman Transportation Consultant, HDR
 - ii. Tina Greenfield Maintenance Bureau, Iowa DOT
 - iii. Erik Minge Transportation Consultant, CRF
 - iv. Austin Wilson Velodyne
 - v. Abbie Christophersen Iowa Economic Development Authority
- 2. Autonomous Vehicles Navigating to American Cities and Towns Brittney Kohler, Legislative Director,
 - Transportation & Infrastructure Service, National League of Cities (NLC)
 - a. Brittney Kohler is a Legislative Director for Transportation and Infrastructure Services for the National League of Cities. She advocates to Congress and to the administration on behalf of transportation needs of the nation's cities, towns, and villages. Her portfolio includes traditional transportation and emerging technology including electric and autonomous vehicles, drones, and micro mobility. She has previously served as deputy press secretary at the USDOT, as well as held positions with the American Society of Civil Engineers, Amtrak, and infrastructure investment and management firms. After more

than a decade of promoting infrastructure needs and policy, she is now focused on delivery of the historic bipartisan infrastructure laws and programs that can bring real solutions to local projects like those she supported early in her career in transit water ferry aviation, and high-speed rail development.

- b. The mission of the NLC is to bring local leadership to the federal level, to Congress and USDOT to make sure that solutions work at local levels makes sense in Washington. The NLC has published two major reports on autonomous vehicles, <u>Autonomous Vehicle Pilots Across America</u> and <u>Autonomous Vehicle</u> <u>Policy Preparation Guide</u>. The former is a municipal action guide, the latter a policy preparation guide.
- c. The federal government has been working on autonomous vehicle regulations for over a decade beginning with the release of the first USDOT Autonomous Vehicle Guidance. The last five years has seen a huge rise in AV testing in US cities and a rise in state laws, which Washington saw as a "patchwork" of regulations. A major bill was passed as an AV Preemption Bill which combined the authority of the car and the driver under federal preemption which previously only applied to the car. Cities and states responded to this bill saying that the driver and the car need to be clarified with AVs, but they both do not need full preemption, as the House bill suggested.
- d. From here, the USDOT implemented further AV guidance updates while expanding the pilot testing arrangement. The Senate introduced an AV bill that was heavily negotiated and was eventually abandoned due to congressional time frames. This topic is likely to be addressed again in the future. The National Committee on Uniform Traffic Control Devices voted to include AV recommendations to the Manual of Uniform Traffic Control Devices (MUTCD) update. It just so happened that that Bipartisan Infrastructure Law was passed which requested the newest MUTCD update incorporates autonomous vehicles. This law also included a request to the USDOT and FHWA to investigate how AVs would be implemented alongside other road conditions. This testing is currently being worked on. Interestingly this update did not include requirements for changes to the standard vehicle performance process for cars nor did it include previously discussed framework laws.
- e. NLC testified at a hearing for the House Transportation and Infrastructure committee, "<u>The Road</u> <u>Ahead for Automated Vehicles</u>" in February. During this hearing, the NLC provided a perspective and set a path towards a sustainable legislation. AVs cannot be introduced all the sudden to the public. It is important to create the right environment of AV transportation options that can best serve the community.
- f. NLC's believes that a successful policy is going to require an appropriate balance between the cooperation of multiple levels of government and the delineation of the respective roles. Industry raises questions about how they can build and deploy these vehicles in a way that allows industry to really serve the intended purpose. Questions like these need to be addressed in a systemic and pragmatic manner. Local, state, and federal governments need to avoid attempting to handle all the necessary changes at one time. The public must be provided with some understanding of what is going on. Government agencies and stakeholders need to be able to handle the external issues that are quite large, perhaps larger than the technology itself, like insurance, liability, and, and safety.
- g. In the <u>National Roadway Safety Strategy</u>, the USDOT pointed to the idea that autonomous road users are going to exist and that we must prepare for their safety as well.
- h. As part of the Bipartisan infrastructure law, the FHWA's MUTCD will consider autonomous vehicles. This update is due by May 15, 2023. It has been an active discussion by many communities and stakeholders across the country. The document impacts every streetlight installed, and it impacts every line put on the road and even more so the companies that provide those.
- U.S. Chamber of Commerce and their Consumer Technology Association Partners put out a call to Congress asking for a response to this 94% as the safety number that points to the need for AVs. Jennifer Homendy, from the NTSB, has said that this number is no longer one that should be used to

describe the idea that 94% of all accidents are due to human error. This call to action from the business community aligns with rumors being heard indicating that there may be action in the Senate this year around autonomous vehicles and setting the stage, perhaps in the committees, after the November election cycle.

- j. <u>A new reality check on self-driving cars</u>, provides a glimpse of a possible shift in focus by the industry. Up until know industry's focus was robo-taxis, self-driving trucks, buses, and delivery devices. Now it appears that manufacturers are pushing for more personal autonomous vehicle devices. This change is an interesting one. But what's happening that the carmakers continue to change dates and deliverables? Safety experts fear that the companies' announcements could lead the public to have unrealistic expectations about what the vehicles can do. PAVE has been stood up by several car manufacturers to expel some of the challenging notions of what your AV can do and how soon it could do it. It is important how information is communicated to the public.
- k. NLC made 3 recommendations to Congress
 - i. <u>Investing in Piloting with Local Government</u>: The concept of testing and the concept of piloting particularly in communities where you can create parameters and safety guardrails around that testing helps build support in those communities. There is an opportunity to launch further testing at sites across the US (shares uses and those areas of the country that feel left behind) under a combined pilot program with USDOT. It is still open. This would allow for new types of testing and the ability to utilize common data across those testing units which could bring forward new recommendations. These could be used to update the actual manufacturing of autonomous vehicles, safety standards for autonomous vehicles, and they could be used to raise safety concerns among industry actors for how they might be able to address this for the people.
 - ii. <u>Invest in Ensuring a Skilled, Trained Workforce</u>: There is a need to invest in America's workforce today and it needs to happen at scale. The workforce must transition along the way while keeping in mind the retiring workforce and the next generation of workers. A great example of this can be seen with the electric bus buying program that FTA was authorized to use under the bipartisan infrastructure law. They set aside five percent of the funds, to train workers as part of that program because an electric versus a standard bus are very different creatures.
 - iii. <u>Raise Planning and Technology Sharing in Regions</u>: Research at the NLC has shown that the physical and digital connections between places really can change the perspective and economic capabilities of those regions. There is a need to increase the data capability behind the small towns, cities, and regions.
- I. Most local governments need to continue to improve their transportation networks at home. These improvements may seem small but may involve planning and/or implementation. Within the bipartisan infrastructure law, there is a grant program designed for local governments, called <u>Safe Streets and Roads for All</u>. To prepare communities for that the National League of Cities launched a new <u>Safety First Challenge</u> to build a coalition for the cities and towns that are working on the innovative projects or grants together into a working cohort. This challenge remains open and an option for both small and large communities.
- m. NLC remains invested in insuring that the "one size fits all approach" does not become a problem for communities. Communities are often wondering how automation will happen or if it is even a good idea. As future bills come out, it is important for communities to work together with state and federal partners to ensure that the AV rollout is done in a safe way that really benefits people.
- n. Discussion

- i. MUTCD updates: Communities, cities, states must understand how important the updates to the MUTCD are to liability implications. Ultimately the government will be held liable if the roadways are not up to the standards specificized in the document. A case involving a selfdriving Uber and a pedestrian in Arizona was mentioned because the city was sued and found liable. The area where the pedestrian was crossing did not meet the standards found in the MUTCD. NLC responses regarding the MUTCD update focused on making sure the communities be given the opportunity to make the changes without having to spend too much money.
- ii. Safety First Challenge: There is a lot of research needed in areas with different terrain and wide-ranging climates. Unfortunately, many companies do not want to do work outside of the nice weather areas. NLC would like to see more testing done in different climates and in different communities. Communities have reached out to NLC asking if automation could really work in a rural context, to perhaps help people get to appointments or the grocery store.

3. Advanced Technologies Project & Opportunities Discussion – All subcommittee members

- a. March 2022 ATC Meeting Charge The Iowa Advisory Council on Automated Transportation is intended to increase roadway safety, personal mobility, and freight movement within the state of Iowa by advancing highly automated vehicle technologies. At the last ATC meeting, Director Marler encouraged the ATC and its subcommittees to:
 - i. Explore opportunities to deploy advanced technologies this year
 - ii. Focus on freight, mobility, or safety
 - iii. Pursue discretionary grants
- b. The Infrastructure Investment and Jobs Act (IIJA) includes more than \$1 trillion to strengthen an array of government systems and services. The massive piece of legislation provides grants to state and local governments to improve transportation, cybersecurity, public safety, water and energy utilities, broadband internet connectivity, and more. The ATC, its chairs, and stakeholders across the state are monitoring opportunities and funding streams to address current needs and advance transportation goals related to AT.
- c. Notices of funding opportunities have been opening monthly in response to the passing of the IIJA. The ATC is monitoring these streams regarding their purpose, criteria, funding amount, and timeline. While some opportunities have already opened and closed, others are soon to be opened. Many of these funding opportunities are part of multi-year programs and will have yearly call for proposals, and other opportunities are open until funding is expended. Funding from these programs will likely only be one-time so it's important to consider how to sustain activities beyond funding. Iowa's transportation stakeholders should work to identify needs and specific use cases first, and then they can begin to identify funding opportunities and partners.
- d. Adam, subcommittee chairs, and other stakeholders have brainstormed potential advanced technology projects in Iowa related to each subcommittee. Projects related to the Infrastructure Readiness and Economic Development subcommittees are cross-cutting and currently focused on connectivity and workforce readiness, respectively. Some AT activities may already be in discussions at certain agencies and university partners, and all transportation stakeholders are encouraged to connect and collaborate on opportunities.

4. Information and key meeting dates

- a. Policy & Legislation Subcommittee Meeting Tuesday, May 17 from 1-2 pm
 - *i.* Mobility Justice in AV Planning and Community Readiness Dr. Laura Sandt, Senior Research Associate, University of North Carolina Safety Research Center

- b. Economic Development & Infrastructure Readiness Joint Subcommittee Meeting <u>Tuesday, May 24</u> from 1-2 pm
 - *i.* Autonomous Vehicles Navigating to American Cities and Towns Brittney Kohler, Legislative Director, Transportation & Infrastructure Service, National League of Cities
- c. Public Safety & Enforcement Subcommittee Meeting Wednesday, June 29 from 1-2 pm
 - *i.* Keynote presentation Dr. Dan McGehee, Director, National Advanced Driving Simulator at the University of Iowa
- d. AT Council Meeting Wednesday, October 5 from 10 am 12 pm
 - i. Presentations Paul Steier, Director Vehicle Programs; Robert Heilman, Director at the Highly Automated Systems Safety Center of Excellence, US DOT; Neal Hawkins, Associate Director InTrans Iowa State Univ

ATC JOINT SUBCOMMITTEE MEETING

Economic Development & Infrastructure Readiness May 24, 2022 Automated drive Destination: 50° 43' 50.34" N 6° 10 55.294" E Arrival: 08;55 pm - Distance 783 miles

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> Destination: 50° 43' 50.34" N 6° 10' 55.294" E Arrival: 08:55 pm - Distance 783 miles

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| Cameras:



MEETING AGENDA

- 1. Welcome and introductions Erin Mullenix, Infrastructure Readiness Subcommittee Chair & Rick Petersen, Economic Development Subcommittee Chair (5 minutes)
- 2. Autonomous Vehicles Navigating to American Cities and Towns- (25 minutes)
 - a. Brittney Kohler, Legislative Director, Transportation & Infrastructure Service, National League of Cities

3. Advanced Technologies Project & Opportunities Discussion - (25 minutes)

- a. March 2022 ATC Meeting Charge
 - a. Explore opportunities to deploy advanced technologies this year
 - b. Focus on freight, mobility, or safety
 - c. Pursue discretionary grants
- 4. Open Discussion all subcommittee members (5 minutes)

5. Information and key upcoming dates

- a. Policy & Legislation Subcommittee Meeting Tuesday, May 17 from 1-2 pm
- b. Public Safety & Enforcement Subcommittee Meeting Wednesday, June 29 from 1-2 pm
- c. AT Council Meeting Wednesday, October 5 from 10 am-12 pm

WELCOME AND INTRODUCTIONS

Erin Mullenix -

Infrastructure Readiness Subcommittee Chair

Rick Petersen -

Economic Development Subcommittee Chair



NEW SUBCOMMITTEE MEMBERS

- Mark Pohlman HDR (Transportation Consultant)
- Tina Greenfield Iowa DOT Maintenance Bureau
- Erik Minge SRF (Transportation Consultant)
- Austin Wilson Velodyne
- Abbie Christophersen Iowa Economic Development Authority (IEDA)





AUTONOMOUS VEHICLES NAVIGATING TO AMERICAN CITIES AND TOWNS

Brittney Kohler – Legislative Director, Transportation & Infrastructure Service, National League of Cities

Autonomous Vehicles Navigating to American Cities and Towns

Brittney Kohler

Legislative Director for Transportation & Infrastructure



OUR MISSION

To strengthen local leadership, influence federal policy and drive innovative solutions.









Washington's Autonomous Vehicle Roller Coaster

- USDOT announces Autonomous Vehicle Guidance
- Rise of AV Testing in U.S. cities
- House Passes AV Preemption Bill combining car and driver under federal preemption
- USDOT Issues Limited AV Update; starts process for expanded pilot arrangement
- Senate AV Companion Heavily Negotiated and Abandoned
- National Committee Votes to Include AV Recommendations to USDOT for MUTCD
- Bipartisan Infrastructure Law only touches briefly on AVs
- Senate and House rumored to pick up AV framework

• ???



COMMITTEE ACTIVITY HEARINGS

HEARING

"The Road Ahead for Automated Vehicles"

SUBCOMMITTEE: Highways and Transit	
DATE:	Wednesday, February 2, 2022
TIME:	11:00 AM
LOCATION:	2167 Rayburn House Office Building and Virtually





Cities handle most aspects of public transportation, and that experience and authority equips us to see both the opportunities and challenges to these new types of transportation.

We are aiming to create the right environment of shared, safe, connected AV transportation options that will better serve our residents and meet our goals as a city.

- Houston Vice Mayor Pro Tem and Council Member Martha Castex-Tatum Testifying on Autonomous Vehicles Before Congress in Februrary



"Ultimately, implementation of a successful AV policy requires finding the appropriate balance between cooperating and delineating the respective state, local and federal responsibilities and ensuring that appropriate funding and incentives are in place for the desired outcomes.

We must approach these issues in a systematic and pragmatic manner to ensure that safety on our nation's roadways and streets is paramount."



National Roadway Safety Strategy www.transportation.gov/NRSS

The United States Department of Transportation National Roadway Safety Strategy (NRSS) outlines the Department's comprehensive approach to significantly reducing serious injuries and deaths on our Nation's highways, roads, and streets. This is the first step in working toward an ambitious long-term goal of reaching zero roadway fatalities. Safety is U.S. DOT's top priority, and the NRSS represents a Department-wide approach to working with stakeholders across the country to achieve this goal.

READ THE NATIONAL ROADWAY SAFETY STRATEGY





FHWA's MUTCD Update

A Notice of Proposed Amendments (NPA) to issue a new edition of the MUTCD was published in the Dec. 14, 2020, Federal Register for public comment. More than **17,000 entries** submitted to the public docket comprise over **35,000 individual comments**, and these comments will inform this rulemaking action and the 11th Edition of the MUTCD. In addition, the Infrastructure Investment and Jobs Act directs USDOT to update the MUTCD by no later than May 15, 2023, and at least every 4 years thereafter to **promote the safety**, inclusion, and mobility of all road users.





FHWA is committed to implementing Section 11135 of the *Infrastructure Investment and Jobs Act*—the "Bipartisan Infrastructure Law"—which requires FHWA to update the MUTCD to provide for the protection of vulnerable road users and support for the safe testing of automated vehicle technology, among other considerations. FHWA is considering all comments it has received as well as the provisions of the new law as it prepares what we are confident will result in a new and better MUTCD with the 11th Edition.

<u>Read more</u> about the MUTCD 11th Edition...and beyond.

The <u>Notice of Proposed Amendments (NPA) for the 11th Edition of the MUTCD</u> represents a comprehensive update to the MUTCD, incorporating the results of over 150 Official Experiments of novel traffic control devices and applications, Official Interpretations, Interim Approvals, and other research conducted both independently and by the Traffic Control Device Consortium Pooled Fund. The NPA closed for public comment in the *Federal Register* on May 14, 2021.

FHWA conducted four **informational Webinars** to acquaint you with the **Notice of Proposed Amendments (NPA) for the 11th Edition of the MUTCD and the revision process.** The recordings for all webinars are available <u>here</u>. HOME USA NYC MASS LA CHI SF DEN CAL

STREETSBLOG USA

Bicycling / Walking / Transit / Car Culture / Micromobility / Mobility Justice / COVID-19

'It Ain't 94 Percent': NTSB Chair Jennifer Homendy Discusses the Role of Human Error in Car Crashes

By Kea Wilson Jan 31, 2022 🗩









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Jan 12, 2022 - Economy & Business

A new reality check on self-driving cars





• www.axios.com/newsletters/axios-whats-next



- **Driving the news:** Up until now, the industry has been working mostly on robotaxis and self-driving trucks for commercial service. But at the annual Consumer Electronics Show last week in Las Vegas, three companies teased plans for when your own car might be able to drive itself.
 - General Motors CEO Mary Barra said GM aims to deliver its <u>first</u> <u>autonomous vehicle for personal use</u> "as soon as mid-decade."
 - Chinese automaker Geely said it's working with Intel-owned Mobileye to have a <u>consumer-ready AV</u> by 2024.
 - Volvo plans to introduce <u>"unsupervised" automated driving</u> as an add-on subscription, but didn't say when the feature would debut.



- Some carmakers and tech companies say they're preparing to deliver self-driving cars to consumers within just a few years, a fresh promise that makes it seem like 2016 again. But beware the hype.
- Why it matters: Your car might be capable of driving itself in the not-too-distant future, but only under certain conditions, like favorable weather or within certain geographic limits. And the timetable is squishy at best.
- Safety experts fear that the companies' pronouncements could build unrealistic expectations or — worse — prompt consumers to leave too much of the driving to their automobiles.

3 Recommendations to Congress





1.Invest in Piloting with Local Governments

America's cities are open to piloting more technology safely that can make our residents' lives better, and Congress and the U.S. Department of Transportation can support localized piloting in a new effort to build up strong federal safety guidelines. We need to move forward on piloting this technology, particularly for shared uses and in areas of the country that feel left behind, and USDOT has the authority to act on this today.



2. Invest in Ensuring a Skilled, Trained Workforce

Investment in America's workforce needs to happen at scale and today. In cities, towns, and villages across America, we know that we cannot carry out today's road, bridge, water and broadband projects funded through the bipartisan infrastructure law without trained, skilled workers – to say nothing of the future demand for new skills sparked by new technologies such as autonomous vehicles. If we do nothing to improve labor market outcomes for infrastructure-related jobs, NLC's latest study anticipates that the U.S. will struggle to fill at least 4.5 million jobs nationally.



3. Raise Planning and Technology Sharing in Regions

America's transportation foundations shifted underneath our feet during COVID – including travel patterns, land use, freight movement, and more. Anticipating, adapting, and accommodating transportation for these trends is the basis of good transportation planning from our metropolitan planning organizations remains underappreciated in federal programming. Investing in foundational transportation planning, logistics, and technology at the metropolitan and regional levels will serve us in more sustainable and practical ways.





The National League of Cities launched a new **"Safety First Challenge"** to build a coalition of 100+ cities and towns in 100 days who want to join the safety movement by taking steps in their communities to bring forward solutions.

Focusing on safer streets will save lives, particularly those disproportionately impacted by traffic crashes, and improve safety for everyone on our streets and sidewalks.



Seven Challenge Actions for the "Safety First Challenge"

- Host a transportation safety roundtable with safety stakeholders from all corners of the community emergency response, healthcare, transit, policymakers, real estate, non-profit groups, and community members, and others – to better understand and address safety needs.
- 2. Gather data related to traffic safety in your communities, with an emphasis on addressing safety risks among disproportionately affected communities, including people walking and biking, seniors, children, people of color, and people in low-income communities.
- **3. Engage** in community neighborhood outreach on traffic safety problems and solutions, with an emphasis on the Safe System approach and disproportionately affected communities.
- 4. Begin to utilize NLC and the U.S. Department of Transportation (USDOT) traffic safety resources to formulate and implement a Local Road Safety Plan, conduct and implement a Safety Audit, or initiate participation in the U.N.'s Decade of Action for Road Safety.
- **5. Show** what's possible in the community by piloting a safety demonstration or safety intervention project, while gathering community input and analyzing safety impact.
- 6. Prepare to utilize the "Safe Streets for All" program from USDOT by establishing a plan, partnerships, or community strategy.
- 7. Pass a local resolution, Local Road Safety plan, or other purpose-driven safety commitment that advances additional actions based on the Safe System approach.



To join the "Safety First Challenge," local leaders from cities and towns will:

- 1. Share their intention to join in the Safety First Challenge using the application form below.
- 2. Make a brief statement of purpose on their road safety goals.
- **3. Commit to take at least one of the seven Challenge Actions.**





Participants in the NLC "Safety First Challenge" will benefit from:

- Intentionally taking steps to save lives and prevent traffic fatalities in your community.
- Engaging in partnerships with safety experts as well as federal, state, regional and nonprofit safety efforts.
- Showing local leadership road safety goals both nationally and internationally as the <u>U.N.'s</u> <u>Road Safety Decade of Action begins.</u>
- Preparing your community to leverage federal resources for local road safety such as the USDOT "Safe Street for All" program and Transportation Alternatives funding.
- Using data to better understand and hone road safety plans and inform state and regional efforts.
- Being highlighted nationally for your road safety efforts and learning from peer communities as NLC highlights city actions on road safety across the country.
- Joining national road safety conversations with federal transportation experts, traffic safety leaders, leading cities, and international leaders in road safety.



NLC and FHWA Road Safety Mini-Series:

Complete Streets for Cities <u>VIEW THE EVENT</u> Get to Know the Mentoring MATCH and Safety Circuit Rider Programs VIEW THE EVENT Get to Know the Safe System Approach VIEW THE EVENT Making a Local Road Safety Plan with "Vision Zero" Goals VIEW THE EVENT Using Proven Safety Countermeasures VIEW THE **EVENT**

Questions? Comments? Ideas?

Brittney Kohler Legislative Director Transportation & Infrastructure Federal Advocacy <u>kohler@nlc.org</u> 202.626.3164 (o) Twitter: @bdkohler



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CITIES STRONG TOGETHER



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ADVANCED TECHNOLOGIES PROJECT & OPPORTUNITIES DISCUSSION

March 2022 ATC Meeting Charge

- Explore opportunities to deploy advanced technologies this year
- Focus on freight, mobility, or safety
- Pursue discretionary grants



ADVANCED TECHNOLOGY PROJECT BRAINSTORMING

Infrastructure Readiness (IR)

- Slow-speed roadway maintenance operations
- Technology solutions to collect or validate transportation data
- Driver behavior in work zones
- Statewide Traveler Information and Work Zones/Operations real-time data
- Pavement Markings
 - Statewide inventory & expansion of 4" to 6" markings to support ADAS and ADS
- Smart City technology partnership opportunities

Economic Development (EcDev)

- Labor & Workforce
 - Develop courses, training, and/or certificate programs for future AT workers
 - Develop outreach material for K-12 students to engage them in an AT related career
- Freight pilot deployment

Public Safety & Enforcement (PS&E)

- Law Enforcement & First Responder Training/Curriculum
- Public Understanding Survey Emerging Technology and appropriate use of ADAS
- Address Vulnerable Road User (VRU) Safety

Policy & Legislation (P&L)

- Automated Transit or Shuttle Demonstration
- Community Readiness associated Smart City
 technology idea for the IR subcommittee

ADVANCED TECHNOLOGY PROJECT FUNDING STREAMS

Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) Program

- <u>Description</u>: Program for the development of model deployment sites for large scale installation and operation of advanced transportation technologies to improve safety, efficiency, system performance, and infrastructure ROI
- <u>Sponsor Agency:</u> US DOT FHWA
- Funding: TBD
- <u>Timeline</u>: TBD

INFRA Grants Program

- <u>Description</u>: Program for multimodal freight and highway projects of national or regional significance to improve the safety, efficiency, and reliability of the movement of freight and people in and across rural and urban areas
- <u>Sponsor Agency:</u> US DOT
- Funding: \$7,250,000,000 (total available FY22-FY26)
- <u>Timeline:</u> May 23, 2022

Small Business Innovation Research Program

- <u>Description</u>: Program awarding contracts to domestic small businesses to pursue research on and develop innovative solutions to our nation's transportation challenges
- Sponsor Agency: US DOT
- <u>Funding:</u> TBD
- <u>Timeline:</u> March 7, 2022; TBD for future years

Smart and Connected Communities (S&CC)

- <u>Description</u>: Program to accelerate the creation of the scientific and engineering foundations that will enable smart & connected communities to bring about new levels of economic opportunity & growth, safety & security, health & wellness, accessibility & inclusivity, and overall quality of life
- <u>Sponsor Agency:</u> National Science Foundation
- <u>Funding:</u> \$26 million total; available until expended
- Timeline: April 1, 2024

ADVANCED TECHNOLOGY PROJECT BRAINSTORMING

Economic Development (EcDev)

- Labor & Workforce
 - Develop courses, training, and/or certificate programs for future AT workers
 - Develop outreach material for K-12 students to engage them in an AT related career
- Freight pilot deployment to address safety, traffic bottlenecks, and workforce challenges
 - Address hours of service requirements and driver shortages
 - Assess truck parking sufficiency between public and private capacity along with occupancy rates
 - Determine opportunities for freight automation interactions between freight modes such as inter-modal facilities
 - Iowa DOT & Iowa Economic Development Authority engagement with industry partners to determine opportunities and made connections

ADVANCED TECHNOLOGY PROJECT BRAINSTORMING

Infrastructure Readiness (IR)

- <u>Slow-speed roadway maintenance operations</u>
 - Audible warning automation (Iowa DOT/ISU research deployment in progress)
 - Automated Truck Mounted Attenuator (ATMA) (Iowa DOT to determine feasibility)
 - Sharing maintenance truck information (e.g., location) to mobile map developers (e.g., Waze)
- <u>Technology solutions to collect or validate transportation data</u>
 - Partnership with a technology company (e.g., PrePass, DriveWyze) or use of an automated research vehicle to ingest work zone data (WZDx) or Iowa DOT Roadway Asset Management System (RAMS) data to support automated driving systems (ADS) operations on Iowa public roads
 - Vehicle Manufacturers
- Driver behavior in work zones
 - Conduct research to better understand driver behavior and use of advanced driver assistance systems (ADAS) in work zones associated idea in the Public Safety & Enforcement list
 - Conduct research using connected vehicle data to monitor work zone safety in terms of hard braking.
- <u>Statewide Traveler Information and Work Zones/Operations real-time data</u>
 - Explore opportunities to combine statewide primary and county 511 systems data for use by ADS developers
 - Opportunity for Iowa Local Technical Assistance Program (LTAP) outreach
- <u>Pavement Markings</u>
 - Statewide inventory & expansion of 4" to 6" markings to support ADAS and ADS
- Smart City technology partnership opportunities
 - Local or DOT technology deployment demonstrations that support safety and operations for all roads users (e.g., lidar)

OPEN DISCUSSION



INFORMATION AND KEY MEETING DATES

Policy & Legislation Subcommittee Meeting – Tuesday, May 17 from 1-2 pm

 Mobility Justice in AV Planning and Community Readiness – Dr. Laura Sandt, Senior Research Associate, University of North Carolina Safety Research Center

Public Safety & Enforcement Subcommittee Meeting – Wednesday, June 29 from 1-2 pm

• *Keynote presentation – Dr. Dan McGehee, Director, National Advanced Driving Simulator at the University of Iowa*

AT Council Meeting – Wednesday, October 5 from 10 am -12 pm

• Presentations – Paul Steier, Director Vehicle Programs; Robert Heilman, Director at the Highly Automated Systems Safety Center of Excellence, US DOT; Neal Hawkins, Associate Director InTrans Iowa State Univ

