



**CONNECTING NORTH TEXAS COMMUNITIES
with EMERGING TRANSPORTATION TECHNOLOGIES**

**AV2.1 FINAL REPORT
PROJECT UPDATE**

**Presented by: Clint Hail, Transportation Planner
Transportation Technology & Innovation Program
North Central Texas Council of Governments
Public Meeting, June 2022**

OBJECTIVE

Review and discuss key takeaways from the Automated Vehicle (2.1) Project

AGENDA

What is this project about?

Why is it important?

What information is available for residents, educators, and local agencies?

What are the next steps?

How else are we preparing?

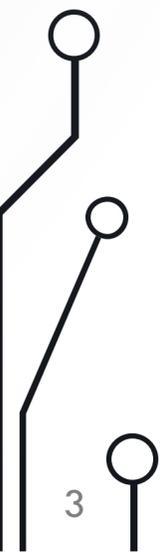
How can you stay connected?

WHAT IS THIS PROJECT ABOUT?



CONNECTING **NORTH TEXAS** COMMUNITIES WITH EMERGING TRANSPORTATION TECHNOLOGIES

- Three-phase Automated Vehicle 2.0 (AV2.0) program
 - **AV2.1 – Planning**
 - AV2.2 – Partnerships
 - AV2.3 – Investments
- Helping North Texas communities plan for the arrival of emerging transportation technologies



WHY IS AV2.1 IMPORTANT?



What is the need?

- Transportation technology is evolving
- Our planning process must evolve to keep up

What is the purpose?

- Understand the region's mobility challenges
- Identify ways transportation automation and related techs can address those challenges
- Recommend policies and best practices to achieve positive results for the region

WHAT EMERGING TECHNOLOGIES ARE WE PLANNING FOR?



- A. Automated cars and trucks (partly or fully self-driving)
- B. Connected cars (cars that can communicate with other cars)
- C. Ride sharing services (e.g., Uber, Lyft) or car sharing services (hourly or daily car rental)
- D. Automated (self-driving) shuttles
- E. Mobility as a Service (a single service that lets users plan and pay for travel across modes)
- F. Automated delivery robots
- G. High-speed trains
- H. Drone delivery
- I. Sidewalk robot delivery

AV2.1 BY THE NUMBERS...

\$1 MILLION

To support planning for emerging technologies

18 MONTHS

To assess the impacts of and prepare the region for emerging technologies

483

People engaged through an online survey

83

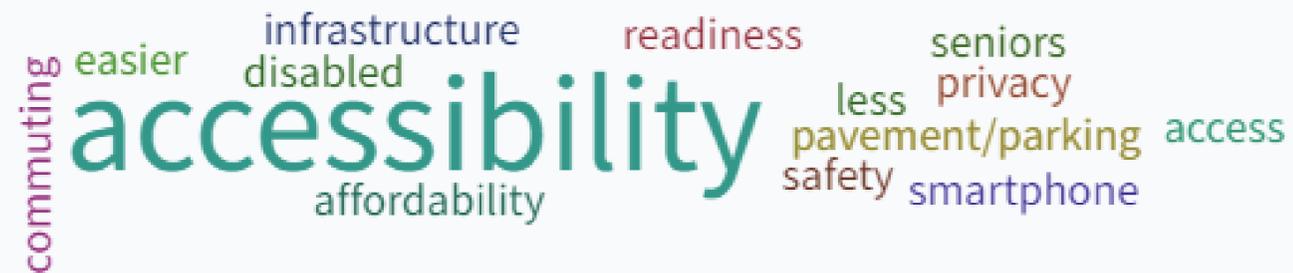
Residents engaged through focus groups

107

People attended two public meetings

WHAT MATTERS TO RESIDENTS?

What issues or opportunities for AV do you believe to be most compelling for people living in your jurisdiction? (up to 3)



Visit the project website www.ConnectNTxFutures.org to learn more:

- [AV2.1 Engagement Phase 1 Summary Report](#)
- [Focus Group Report](#)
- [What We Heard From Residents](#)

WHAT IS AVAILABLE FOR EDUCATORS?

- K-12 lesson plan on automation



Multidiscipline

Preparing for Emerging Transportation Technologies



English

Same Message, Different Audience



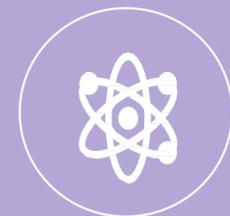
Social Studies

Reviewing Transportation Policy



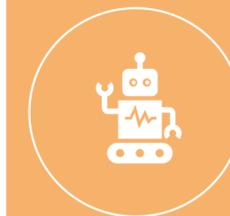
Math

Avoid the crash!



Science

Pavement Markings and the Science of Retroreflectivity



FIRST LEGO League

Blind Spot Monitoring with WeDo 2.0

- Education and workforce development public meeting panel recording discussing needs to prepare for emerging technologies.

Preparing for Emerging Transportation Technologies

A Panel Discussion on Education and Workforce Development

Connecting North Texas Communities with Emerging Transportation Technologies

Meet the Panel

 <p>Ernest Huffman Aviation Planning and Education Program Manager North Central Texas Council of Governments</p>	 <p>LaKeshia Raynor Director, Workforce Development and Apprenticeships Relationship Management Dallas College, Cedar Valley Campus</p>
 <p>Kentrel Phillips, Ed.D. Chief Academic Officer Everman ISD</p>	 <p>Janille Smith-Colin, Ph.D. Assistant Professor Southern Methodist University</p>

WHAT IS AVAILABLE FOR LOCAL AGENCIES, PLANNERS, AND POLICY MAKERS?



Existing Conditions. Many transportation challenges and technology deployments are underway. We have lots to learn as technology and deployments mature



Market Analysis. Use cases and adoption timelines vary for different technologies. Technology is changing, so we must start the planning process and adapt



Future Scenario Development. AVs alone will not solve the region's future congestion problems. Plan additional demand management or other strategies to meet transportation needs



Financial Impacts. Emerging technologies threaten traditional revenue streams. Assess and identify strategies to fill gaps in transportation revenues



AV Deployment Best Practices. The region can be an active player in advancing technology to solve transportation challenges. Proactive policies, partnerships, infrastructure improvements, and workforce education lay the groundwork for success

All technical reports to be posted on ConnectNTxFutures.org

NEXT STEPS FOR LOCAL AGENCIES

PREPARE. Become familiar with AV technologies and agency regulatory powers, develop the agency's vision for technology, and set technology-related goals

SELF-ASSESS. Review the agency's staffing, resources, capabilities, organization, policies, and plans. Identify needs and courses of action

TAKE ACTION. Address the policy and resource gaps identified in the self-assessment. Train staff, build partnerships, and pursue funding to test technology and agency readiness through pilot deployments

MONITOR AND ADJUST. Monitor progress toward achieving the agency's technology-related goals and adjust programs, plans, and actions as necessary to meet the goals

NCTCOG IS HERE TO HELP

PURSUE FUNDING OPPORTUNITIES. The region can be an active player for federal, state, or local funding to deploy or support new technologies

DISSEMINATE KEY FINDINGS. Share key findings from this project to accelerate adoption of best practices among local agencies

CONTINUE TO MONITOR TRENDS. Monitor industry trends and the impacts on the North Central Texas region to adapt as the AV market evolves

DEVELOP TOOLS TO EVALUATE PILOT PROJECTS. Plan for and conduct evaluations of pilot deployment programs to identify success stories and challenges. They can also inform public agencies on how to structure pilot programs and select projects to pursue moving forward

HOW ELSE IS NCTCOG PREPARING?



Collaborating on TxDOT's [Connected Freight Corridors Project](#)



Leading [Freight Optimization Project](#) to improve flow of freight



Standardizing work zone reporting using the [Work Zone Data Exchange](#) Specification



Utilizing [connected vehicle data](#)—especially video—to improve maintenance, operations, and safety



[Advancing electrification](#) to support automated vehicles



Calming traffic, [creating safer streets for all people](#), including for bicyclists and pedestrians will improve operational environment for automated vehicles



Testing [Uncrewed Aircraft System \(UAS\)](#) technologies

WANT TO LEARN MORE?



AV2.1 Project Final Report Executive Summary – **AVAILABLE NOW!**



AV2.1 Project Website & Technical Reports – **[CONNECTNTXFUTURES.ORG](https://connectntxfutures.org)**



Emerging Transportation Technologies – **[K-12 LESSON PLANS](#)**



North Central Texas Council of Governments (NCTCOG) – **[NCTCOG.ORG](https://nctcog.org)**

Thank you!

NCTCOG

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