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AGENCY OF TRANSPORTATION
RESEARCH PROGRAM

2025 Transportation Research Board Annual Meeting

January 5-9, 2025

Washington, D.C.

All 10 of us made it to the group photo!

AOT at TRB 2025

- 10 people from AOT attended the 2025 TRB Annual Meeting
  - Emily Parkany – Research Manager
  - Jayna Morse, Finance and Administration Division Director
  - Ashley Atkins, District Maintenance and Fleet Deputy Division Director
  - Zoe Neaderland – Systems Planning Coordinator
  - Dan Currier – Public Transit Program Coordinator
  - Ari Lattanzi – Climate Programs Administrator
  - Nick Van Den Berg – Materials and Certification Manager
  - Faith Dall – Planning Coordinator
  - Todd Eaton – Vermont Local Roads Director
  - Rachel Wassel – Continuous Improvement Program Manager

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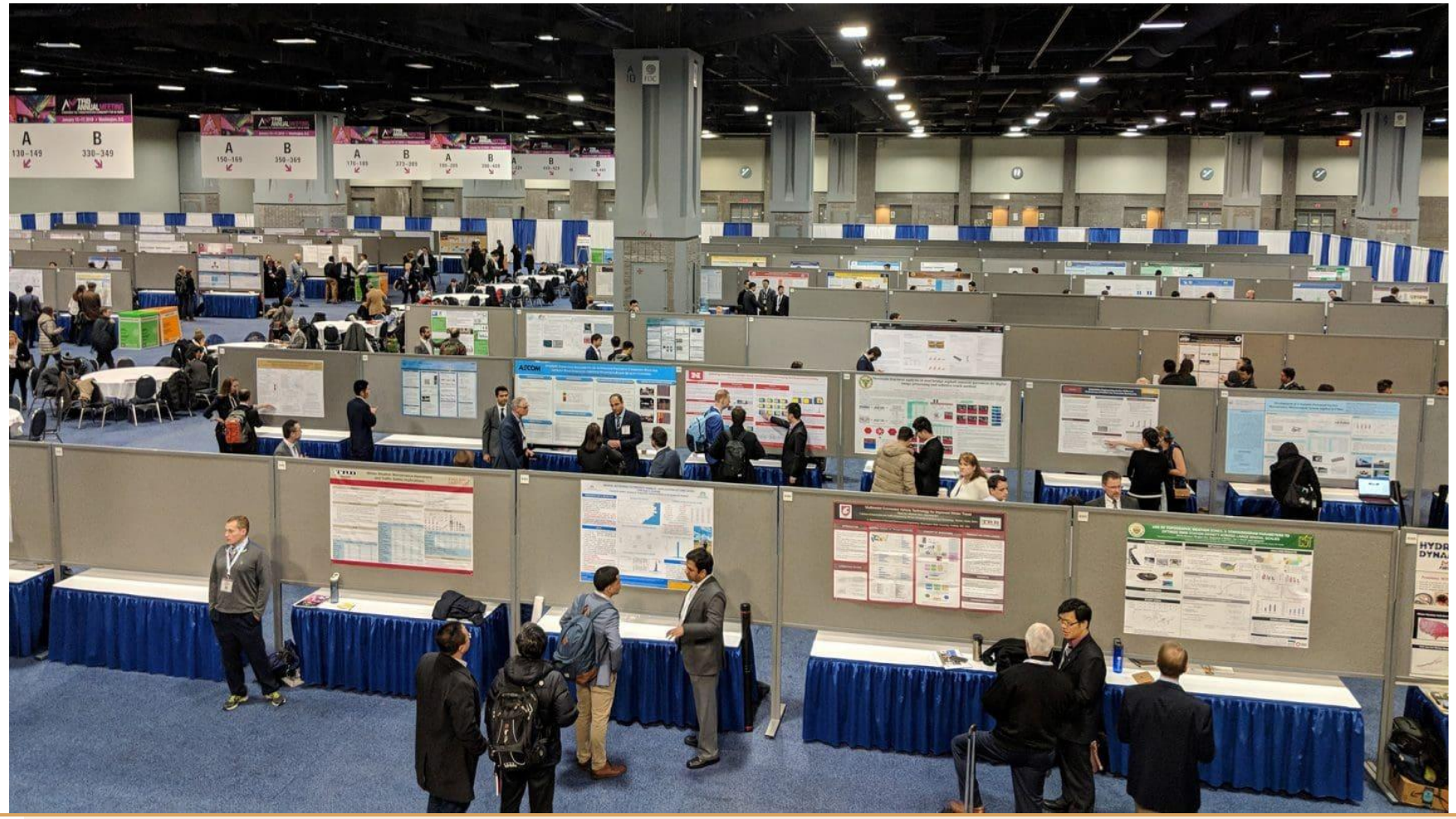
What Happens at TRB

Signage Needed!
Workshops, Sessions, Posters, Exhibits, Committee Meetings, etc.

Many Posters All Week!



Workshops and Lectern Sessions

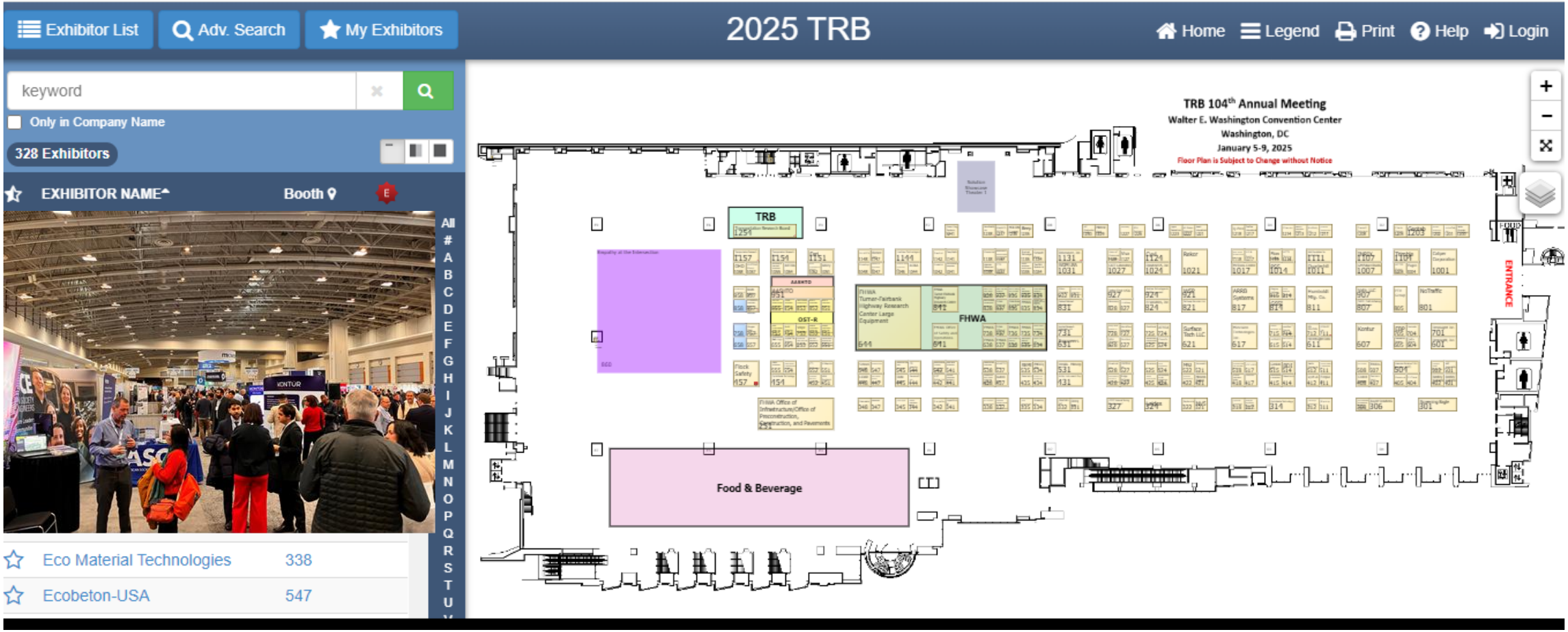
Workshops

- More interactive, engaging attendees in some form of creative activity
- Participant training, development of a research agenda around a specific topic, or some other product or deliverable, etc.
- Typically outcome driven where the conversation leads to a product or defined content

Lectern Sessions

- Presenting papers that went through peer review process and were accepted by committee
- Speakers invited to presentation on a topic for which they are an expert without needing to prepare a paper for review
- Papers and speakers are organized around a common theme

Exhibit Hall



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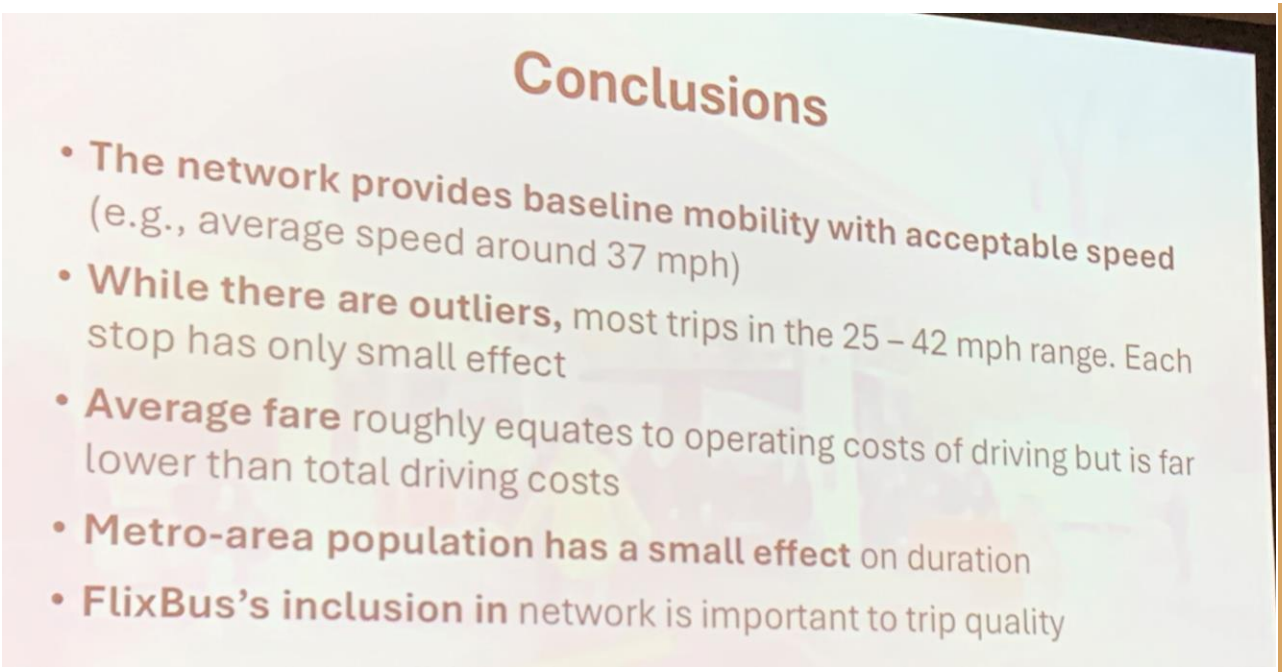
Takeaways and Highlights

Dan Currier Public Transit Section

Takeaway 1 – Intercity Bus Research



- Vermont Context
  - Interlining to other intercity routes is important
  - Transfers cause delays on trips
  - Flix bus operations are an improvement

Takeaway 2 – Access in Appalachia Pilot Study

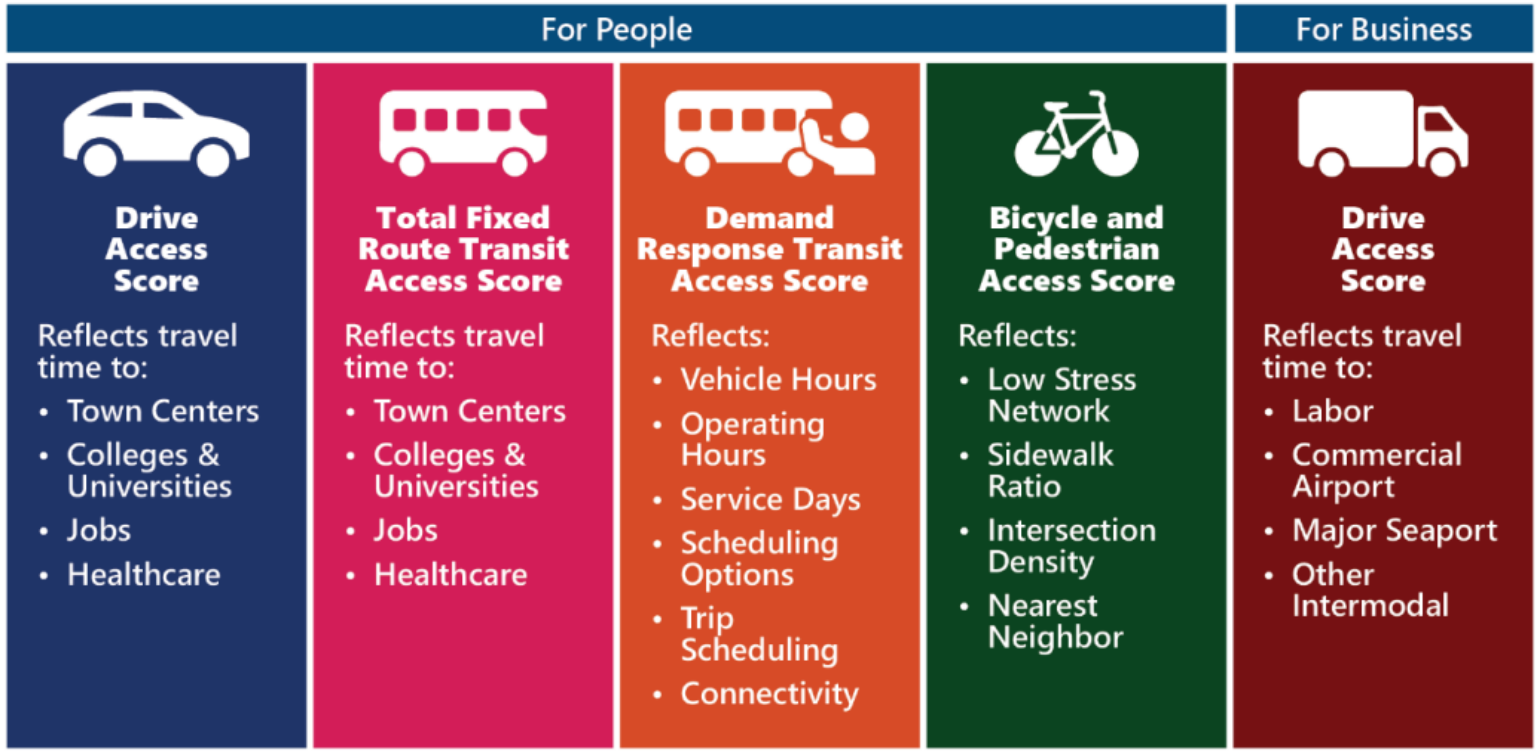
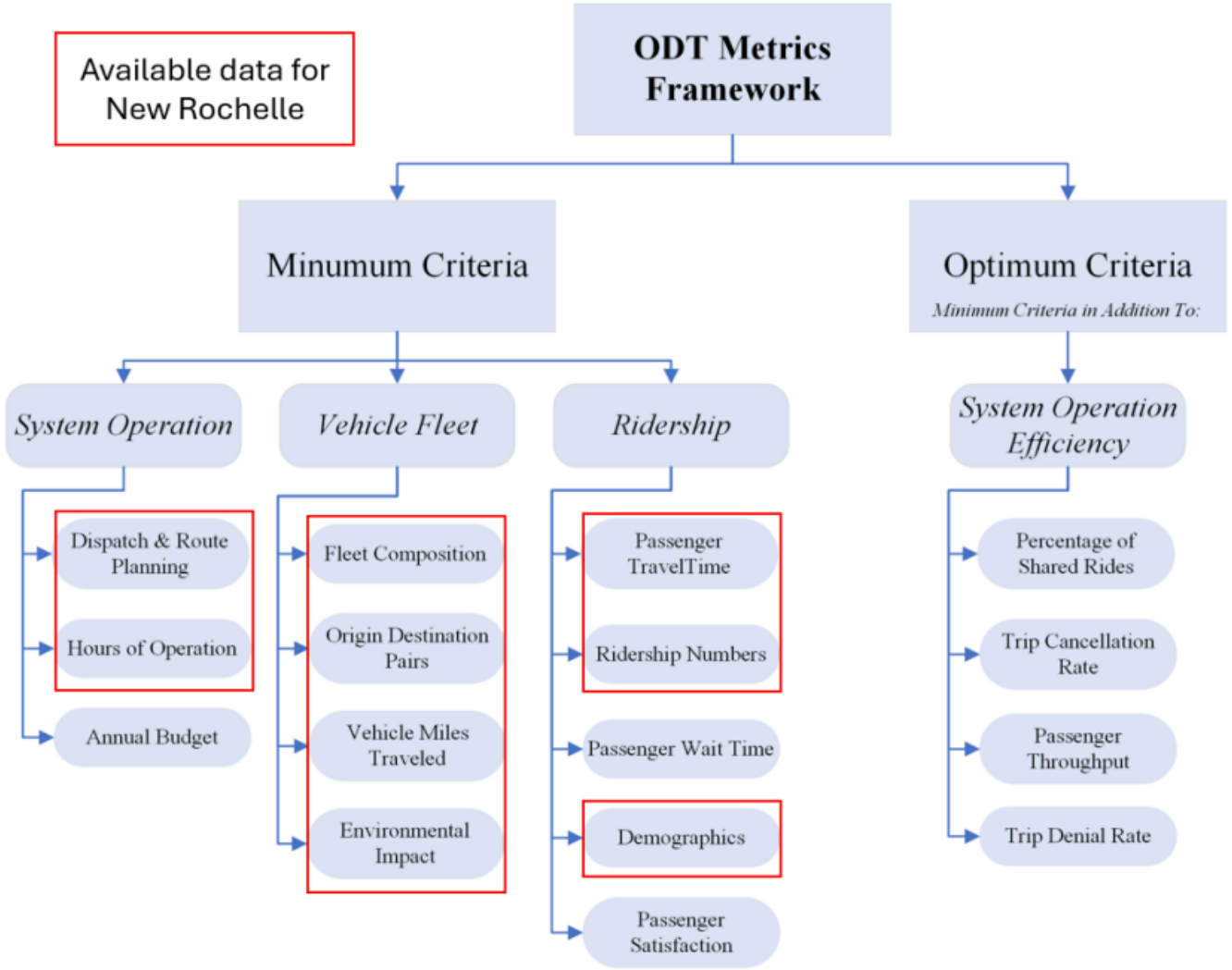


Figure E1. Access for People and Business in North Carolina

- Vermont Context
  - Connect measures of access to indicators of relative need to identify locations with the greatest opportunity for improvement through targeted transportation investments.

https://www.arc.gov/report/access-in-appalachia-north-carolina-dot-pilot-study/

Takeaway 3 – On-Demand EV Transit Study

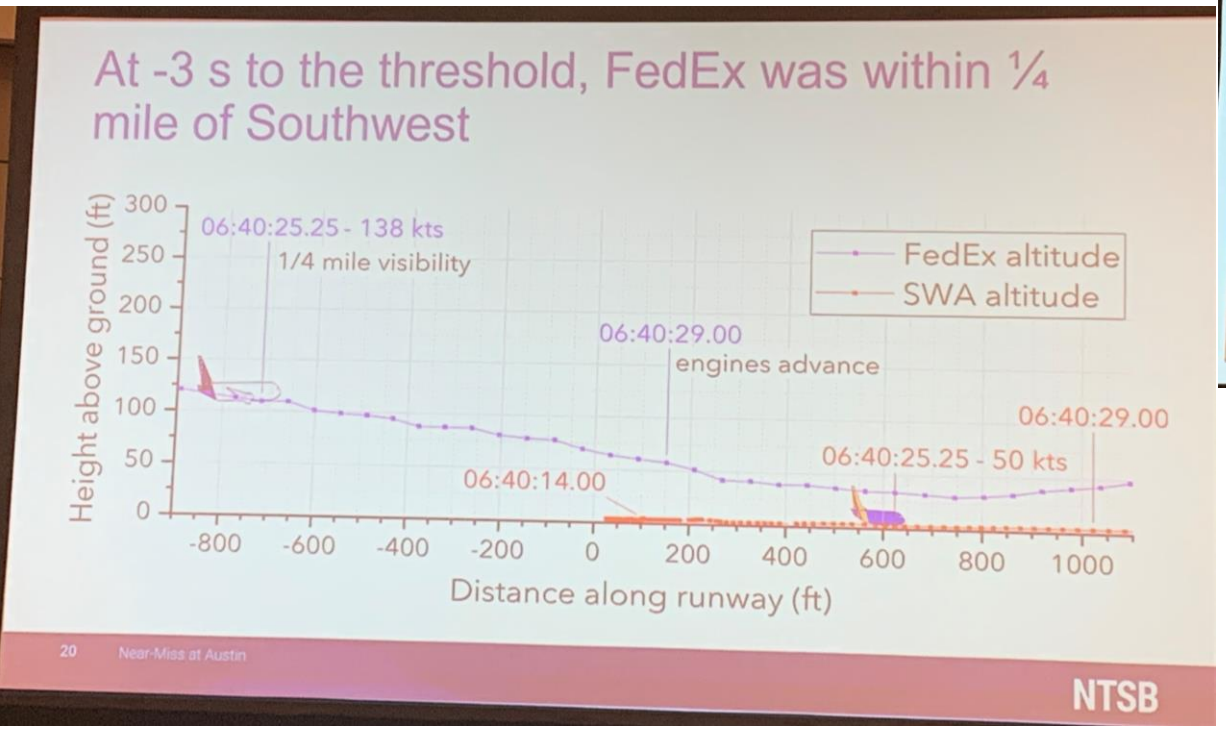


- Vermont Context
  - Assess VT's 6 On-Demand Transit services to determine service performance

https://www.nrel.gov/docs/fy25osti/92497.pdf

Highlights

NTSB Investigations – Near miss in Austin



NYC Congestion Pricing

Snow

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Takeaways and Highlights

Faith Dall, Planning Coordinator

Takeaway – Importance of Signage & Wayfinding

- Metro Silver line expansion to reach Dulles International Airport was a 6-Billion-dollar investment
- Lack of signage in Airport for the inter-modal connection deters users from completing their trip on the Metro

Takeaway – TDM as Construction Mitigation

Alaskan Way Viaduct in Seattle

Total Trip Reduction Need: 11,130 weekday peak period round trips
TDM / Transit Target: 4,130 of these trips
TDM / Transit Performance: 13,379 trips

Some TDM Strategies Employed:

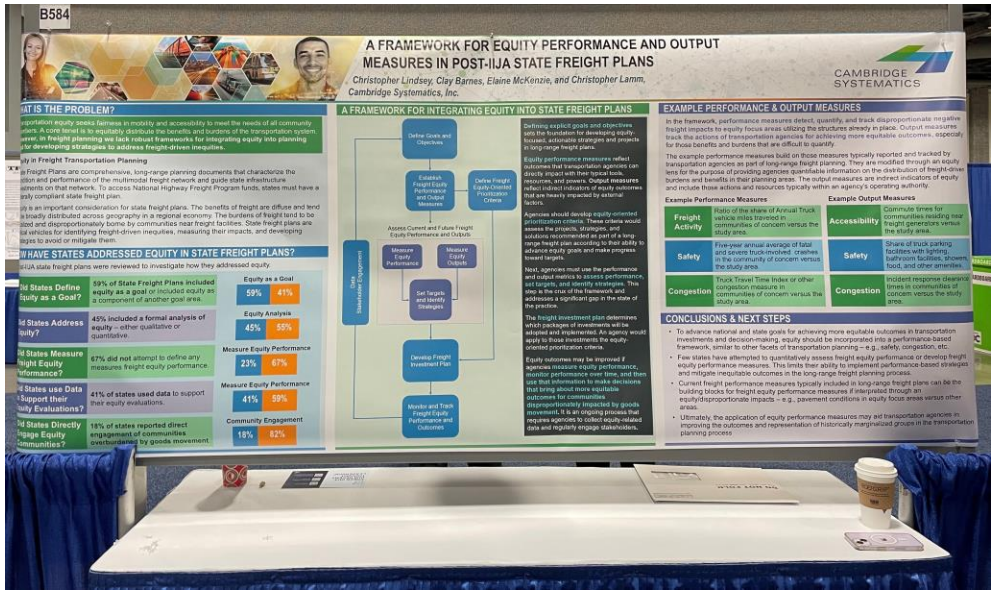
- Encouraging Remote work during construction window (pre-COVID times)
- Working with employers to shift starting hours/ employ flex time policies to reduce congestion during peak time
- Increase bus service during construction window

Takeaway – Freight Transportation Planning

- Planning for shock events
  - Movement of goods to communities impacted
  - Ability to continue exportation of goods out of impacted area

- Research on measuring impacts to communities adjacent to freight transportation through State Freight Plans

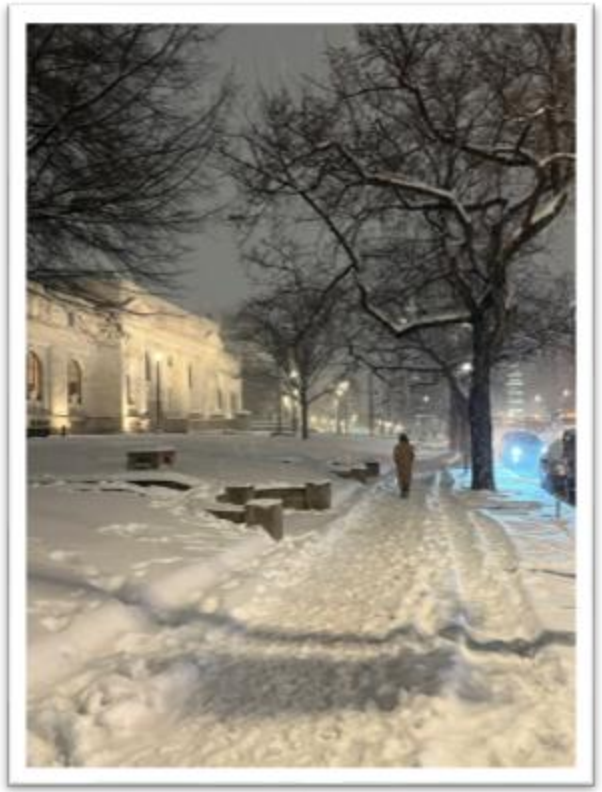
- TRB Freight Transportation and Planning Logistics Committee created a Primer on Freight Planning for different audiences https://freightplanning.org/freight-modeling-primer/

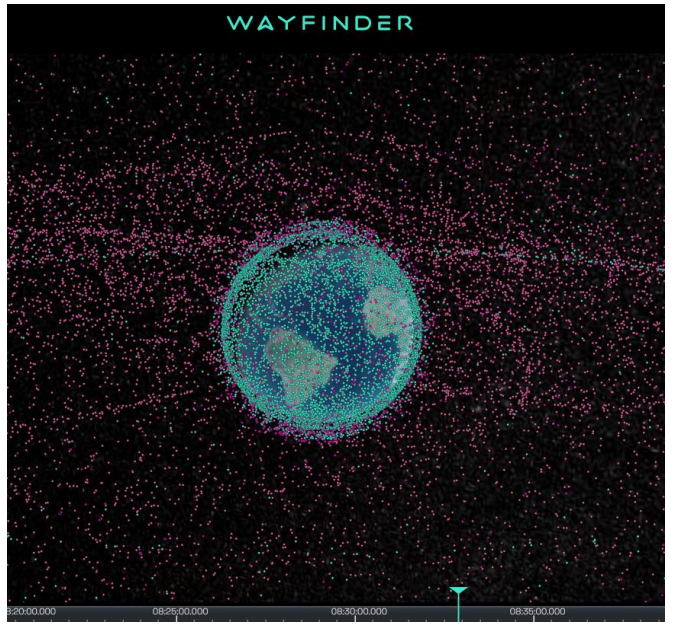


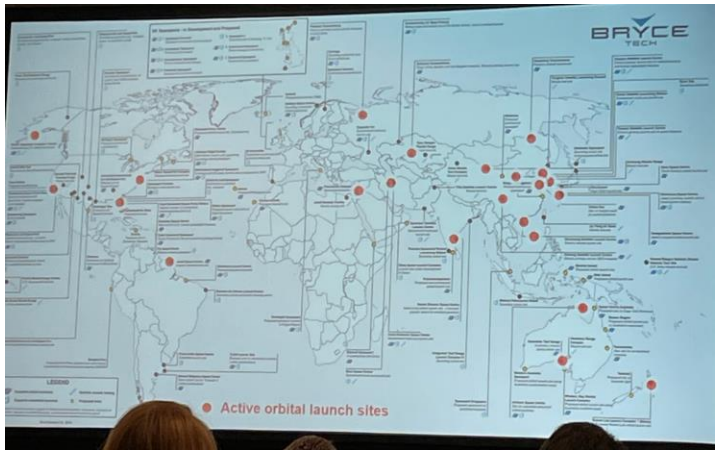
Picture from https://youvegotfreight.nl/en/

Highlights

- **USDOT Intercity Rail Planning for Major Events:** Presentation from Deputy Assistant Secretary for Transportation Policy Felicia Alexander at Passenger Rail Committee
  - At least 7 Major Events in 10 years:
    - FIFA Club World Cup ('25)
    - Concacafa Gold Cup ('25)
    - WC26 FIFA Men's World Cup ('26)
    - LA25 Summer Olympics ('28)
    - Paraolympics ('28)
    - Men's Rugby World Cup ('31)
    - Women's Ruby World Cup ('31)
    - Salt Lake Winter Games ('34)
    - Bonus: 250th Anniversary
- **DC in the snow**
- **Responsibilities in shared air space**







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Takeaways and Highlights

Todd Eaton, Vermont Local Roads

Vermont Local Roads (VLR) is Vermont's Local Technical Assistance Program (LTAP) sponsored by the Federal Highway Administration (FHWA)and the Vermont Agency of Transportation (AOT).

Low Volume Roads, What is it really?

- Low Volume Roads Committee
- Participating in the conversation on tightening the definition of low-volume roads
- Help generate funding opportunities for smaller agencies and communities and to focus research

Professional Development and Workforce

- Impacted by the research around internships as a pathway for success in construction management
- Sparked my exploring the opportunities if offering internship and mentoring services through the VLR program

Roadway Resilience

- Still an emerging focus of research
- Metrics are still in their infancy
- Motivated me further in our Vermont-based research in this area

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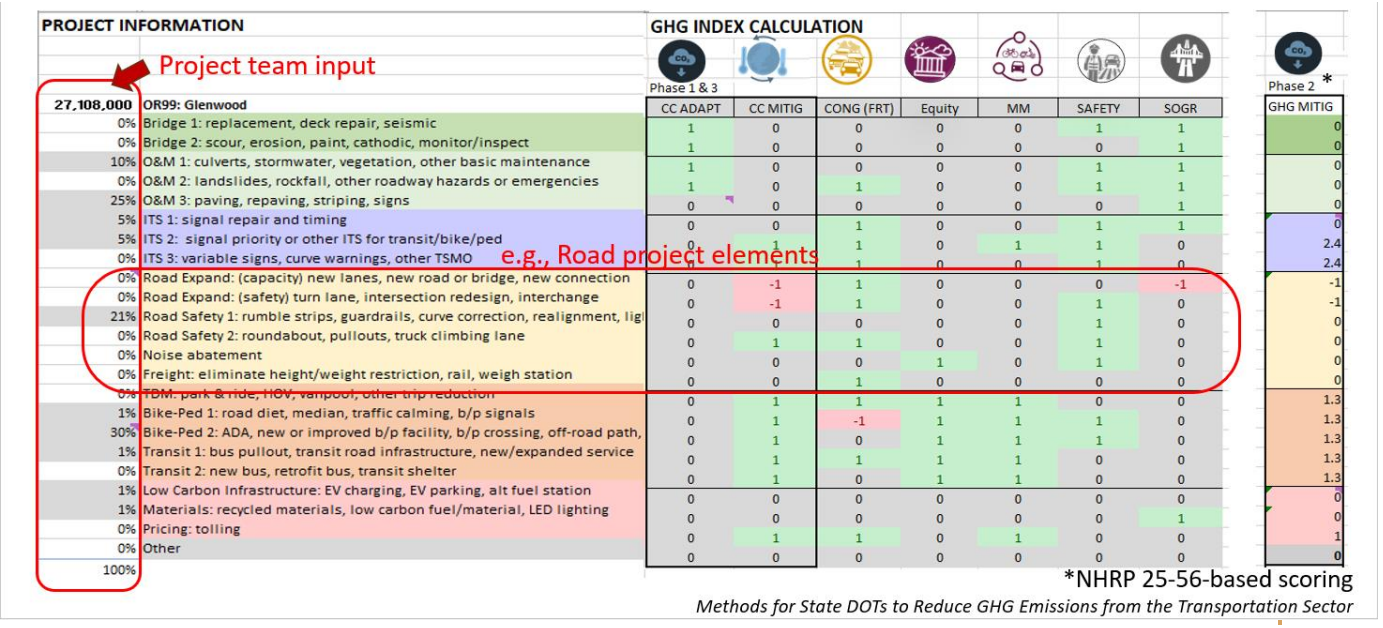
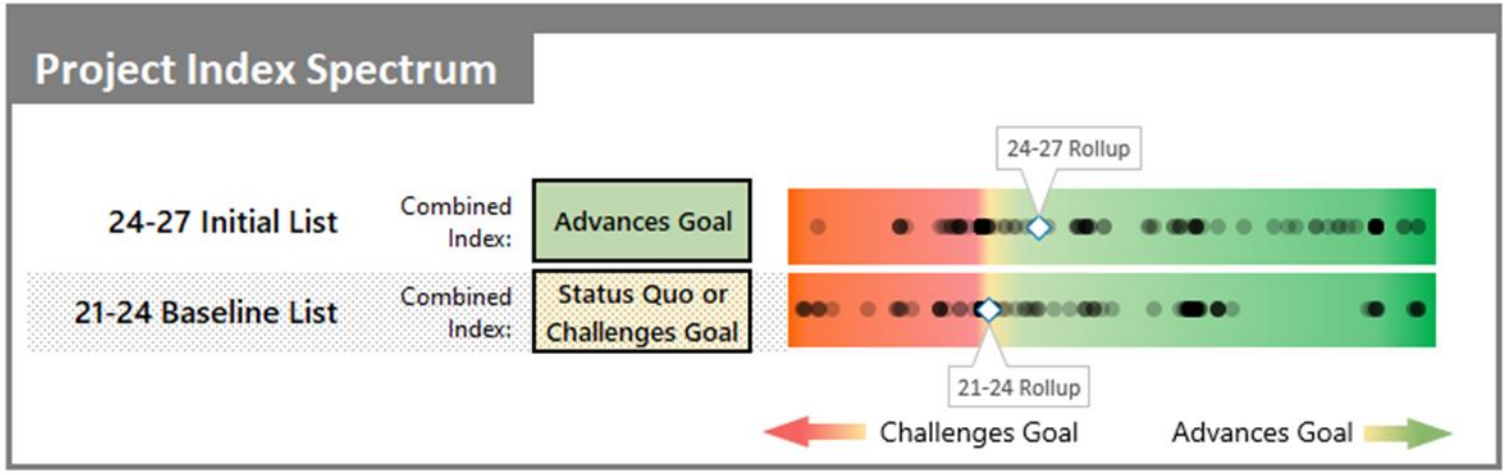
Takeaways and Highlights

Ari Lattanzi, Environmental Policy and Sustainability

Takeaway 1 – Quantify Funding Outcomes



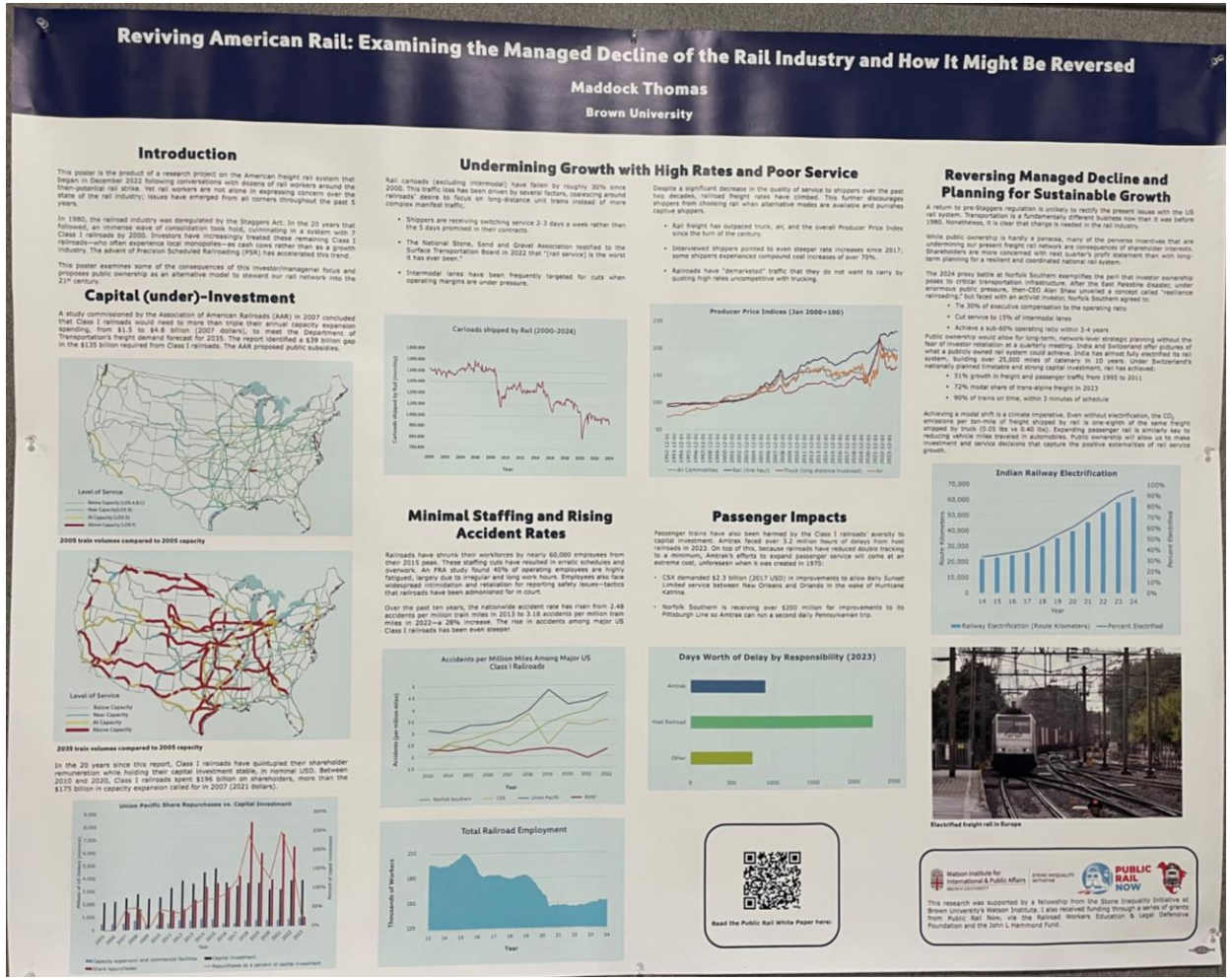
- Vermont Context
  - Quantify the impact of all transportation dollars
  - Simple overall analysis of advancing or challenging goals
  - Could be applied to STIP or part of VPSP2



Takeaway 2 – Measuring Resilience

- Vermont Context
  - Standardize metrics
  - Streamline data collection
  - Enable simplified reporting
  - Harmonize between state and local road reporting
  - Prioritize investment based on findings
  - One place to find all relevant resilience data for transportation infrastructure

Takeaway 3 – Decline of Rail Industry

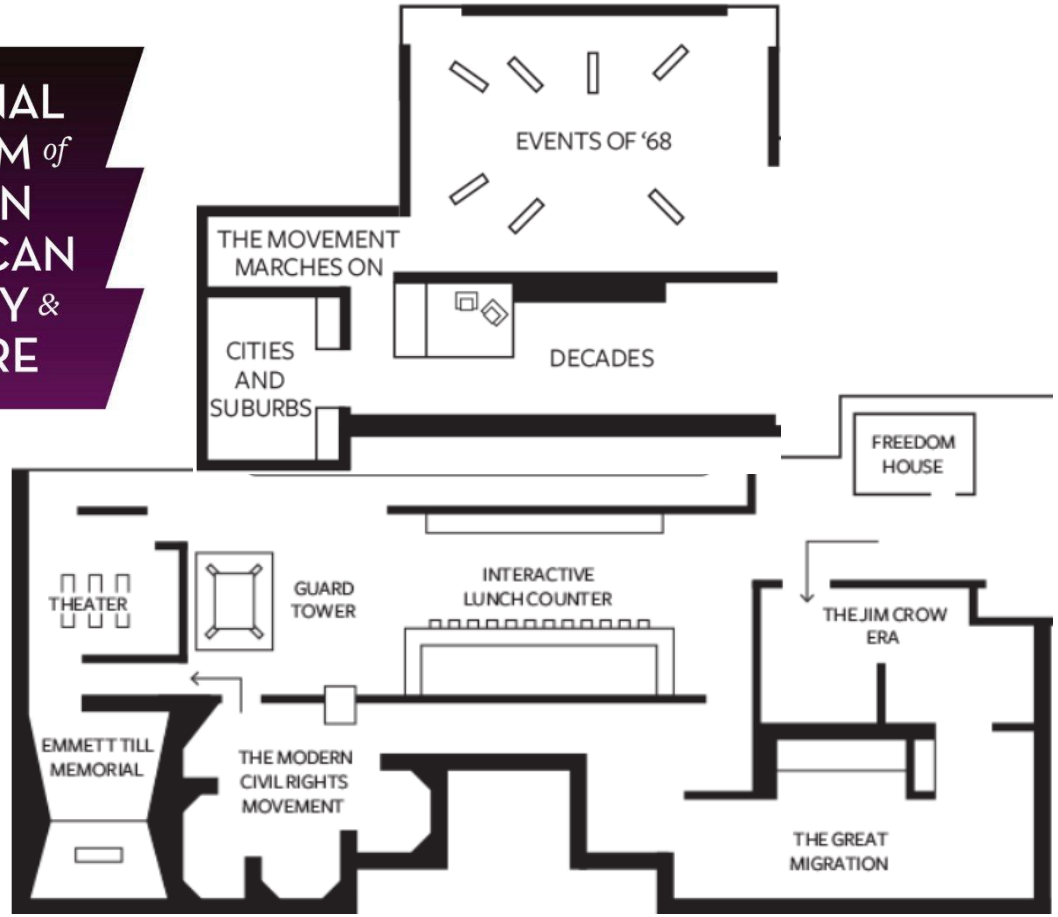


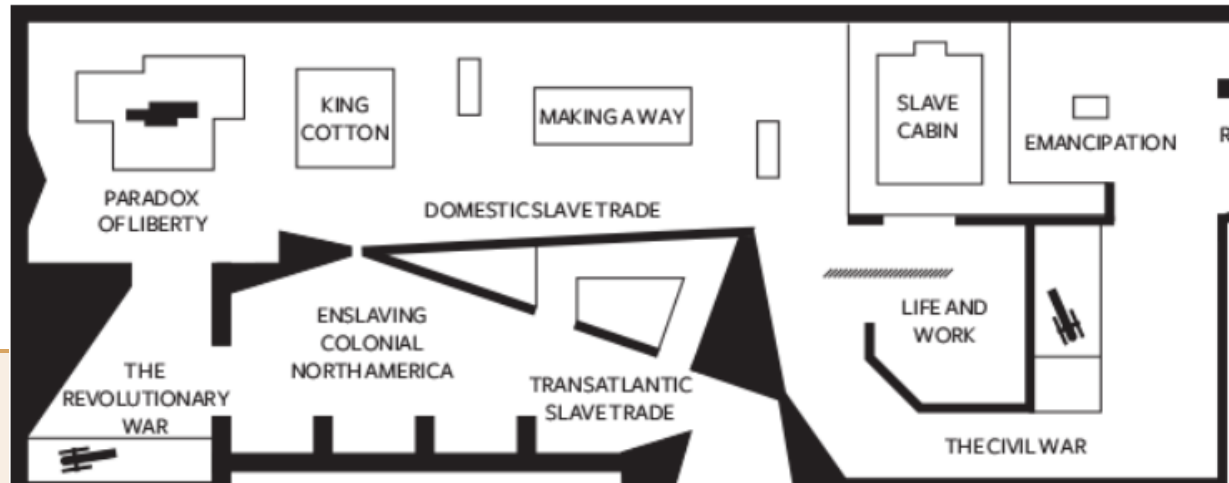
- Vermont Context
  - Freight rail might be more expensive than trucking for producers
  - Potential for derailments
  - Delays to passenger rail service
  - Increased cost to expand passenger rail service

Highlights

Martin E. Red Bear (Oglala/Sicangu Lakota, b. 1947). *Red Bear's Winter Count*, 2004

NATIONAL MUSEUM of AFRICAN AMERICAN HISTORY & CULTURE





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Takeaways and Highlights

Jayna Morse, Finance and Administration Director

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Takeaways and Highlights

Zoe Neaderland, Planning and Policy Coordinator

Take-Away #1: Exciting Subcommittee (yes, really)

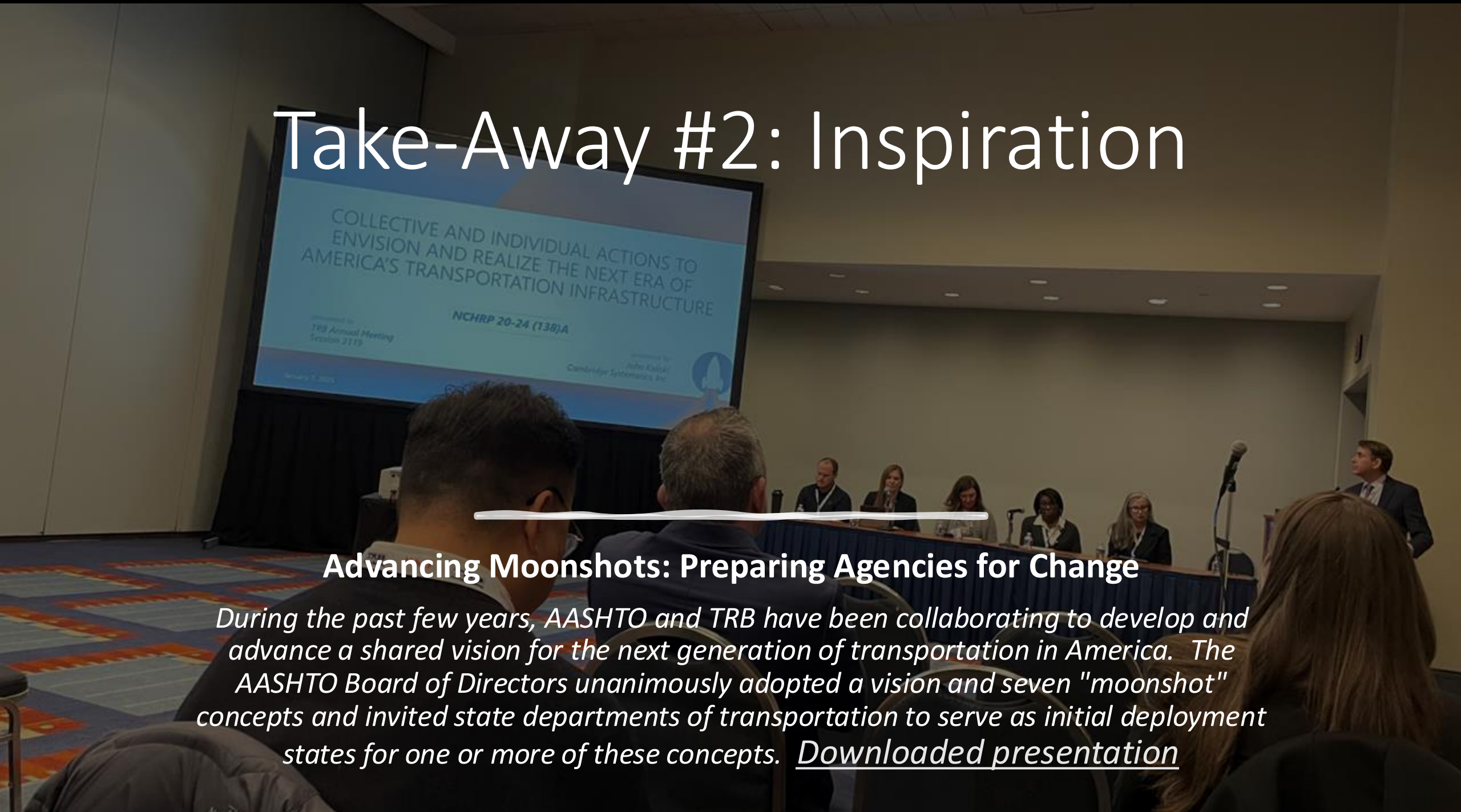
Approximately 15 smart, diverse people discussed matters spot-on to my work; I'll continue as a 'friend": Standing Committee on Visualization in Transportation (AED80) - Subcommittee on Data and Systems Performance

NCHRP 08-167 Guide for Creating Effective Transportation Visualizations –

Who wants to participate in a survey for it?

Do we want to participate in a one-hour interview?

Take-Away #2: Inspiration



Advancing Moonshots: Preparing Agencies for Change

During the past few years, AASHTO and TRB have been collaborating to develop and advance a shared vision for the next generation of transportation in America. The AASHTO Board of Directors unanimously adopted a vision and seven "moonshot" concepts and invited state departments of transportation to serve as initial deployment states for one or more of these concepts. *Downloaded presentation*

Take-Away #3: Big Data Community

Decades of building knowledge and connections through The Eastern Transportation Coalition feels like it has worked.

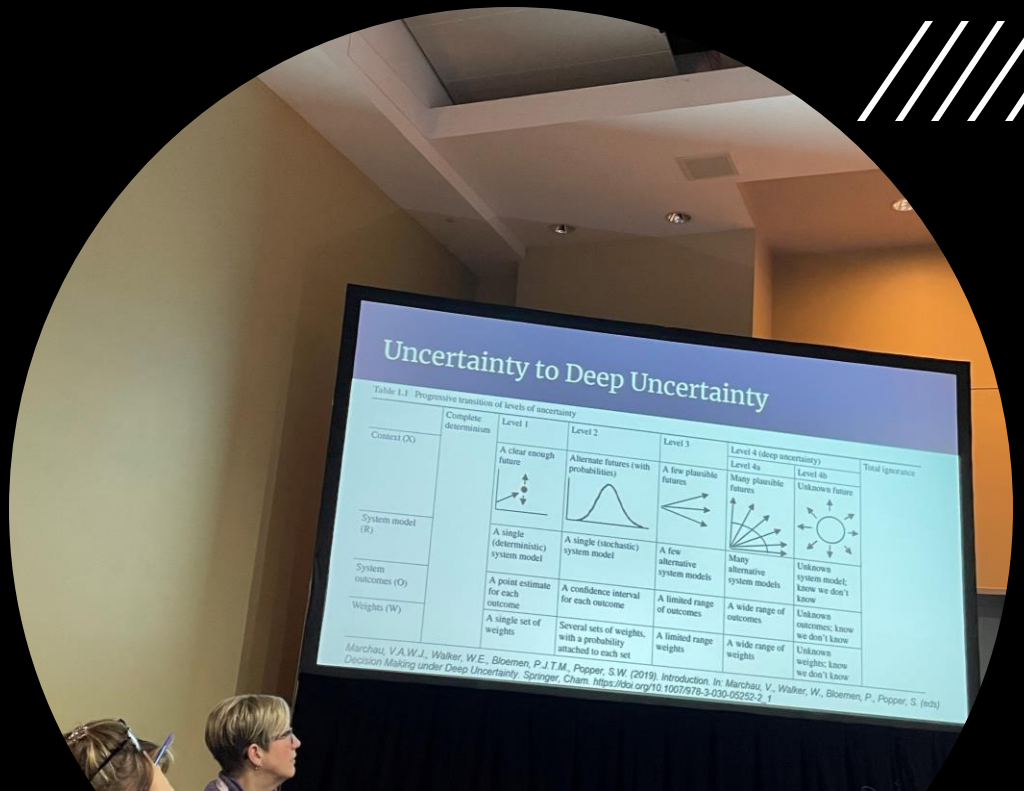
Diverse, successful uses…and need to continue to communicate – Freight big data analysis helped Nebraska receive their only IIJA award.

Spending time with Replica staff felt like meeting the next generation.

Two Highlights

Sheer diversity of subjects and participants, brainpower, and good will

Standing in a hallway reflecting with people I esteem and hadn't seen in years



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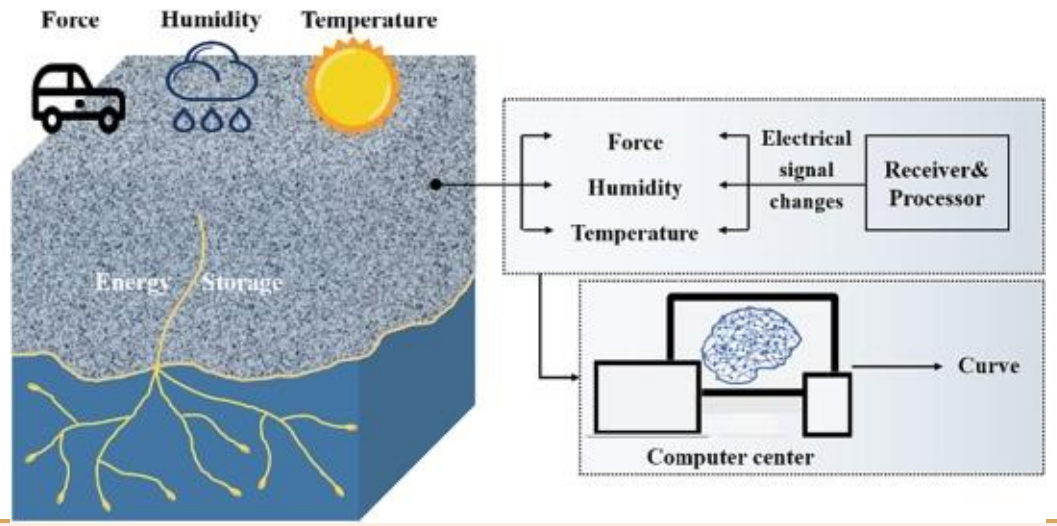
Takeaways and Highlights

Emily Parkany, Research Manager

AJE35 RIIM Implementation Sessions

- Emily is Chair of TRB's AJE35 Research Innovation Implementation Management (RIIM) Committee
- RIIM Organized two Implementation Sessions in 2025
  - Concrete Materials Papers
    - "Electrically Conductive Concrete: Properties and Applications"
  - Artificial Intelligence Papers

"TitanBot: Customizing LLMs for Enhanced Infrastructure Performance Analytics and Visualization in Transportation Agencies"



Sessions/Workshops I Was Not Responsible For

- Workshop: Integrating Non-Destructive Evaluation Techniques for Structural Health Monitoring
- NSF Workshop: Advanced Sensing and Artificial Intelligence for Civil Infrastructure Monitoring
- Session: Creative Applications of Recycled Aggregates in Pavement Design

Unexpected Encounters

- Two sidewalk interactions (everyone bundled against snow and cold)
  - I was complaining about cold and a random woman said “but you’re from Vermont”. She mentioned Ohio and I figured out who she was.
  - Two guys were going in opposite direction. One called out “Hey Emily who we see at TRB.” He provided his name and the other guy’s name.
- “TRB wouldn’t be the same without running into you” Roderick Diaz, Director of Planning and Development at Metrolink
- “It’s because of you that I have this job” Sarah Hernandez, University of Arkansas→ Keep mentoring

Wednesday Night

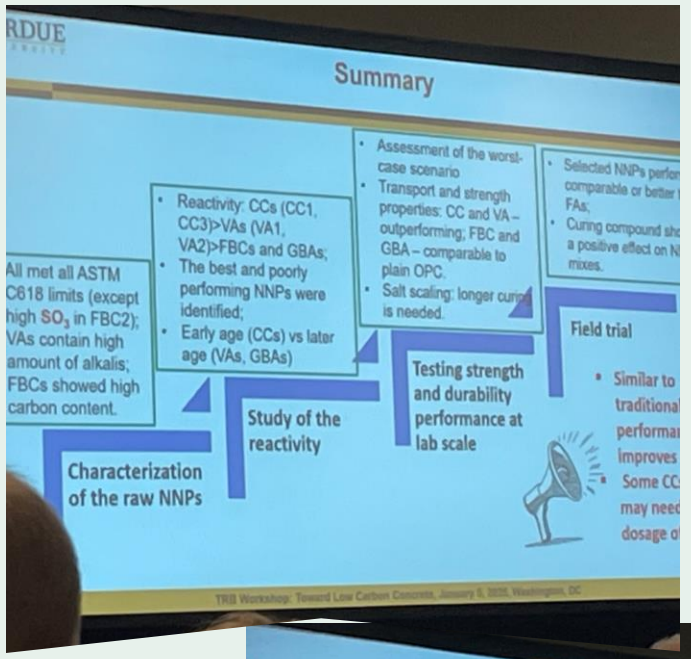
Highlights and Takeaways

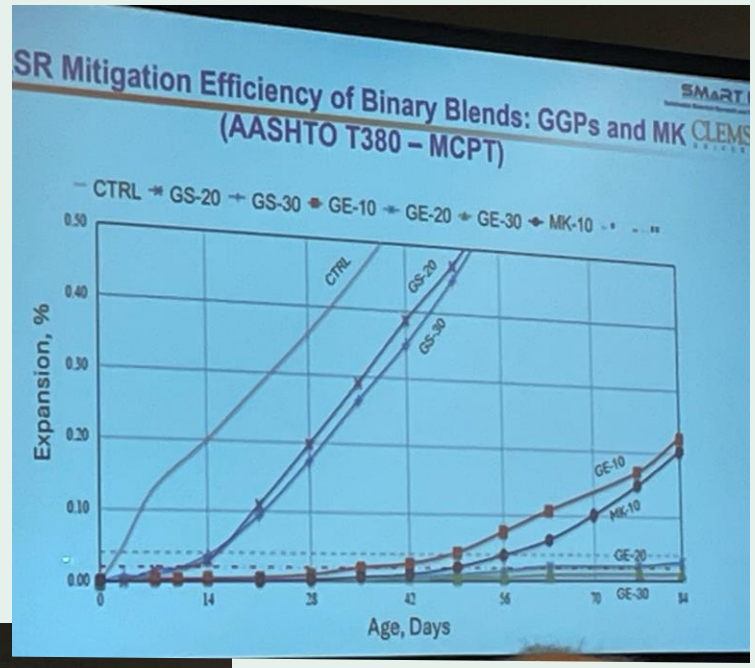
Nick Van Den Berg,
Materials Manager

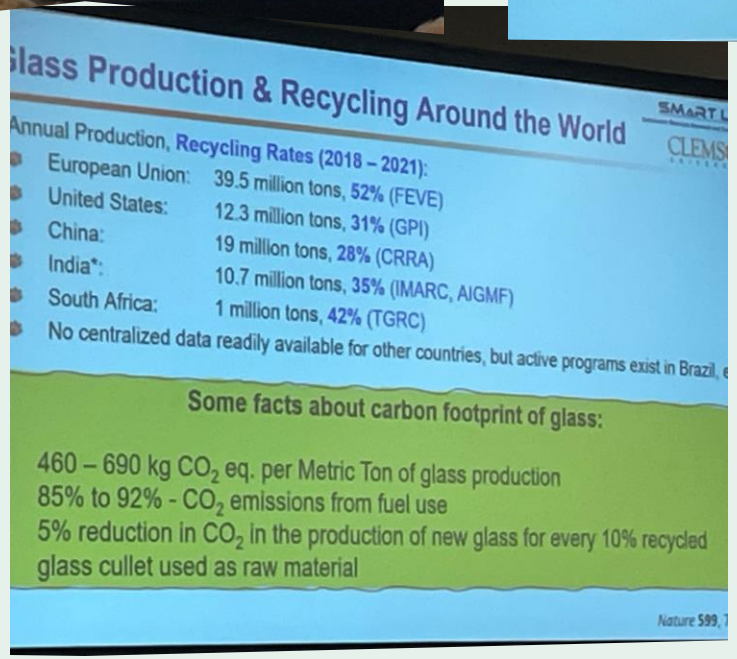
Highlights and Takeaways

1018/1050 – Toward Low-Carbon Concrete, Part 1 & 2

> "It's getting complicated on the playground"

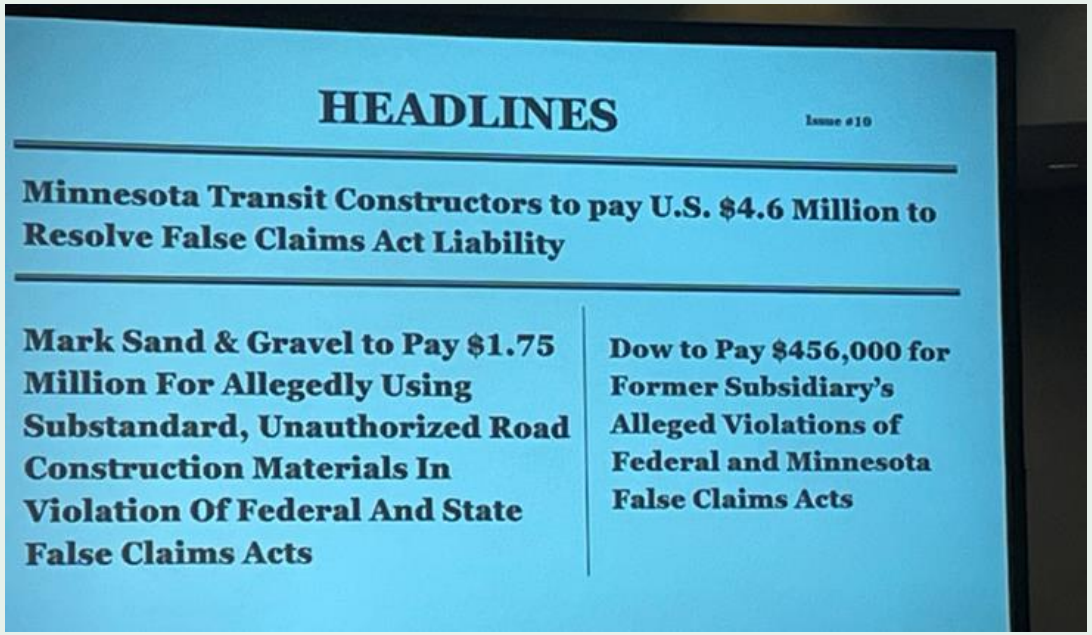






Highlights and Takeaways

2010 – False Claims Act



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Highlights and Takeaways

2181 – SO YOU WANT TO BE AN EXPERT WITNESS?

AKG90 – STABILIZATION OF GEOMATERIALS AND RECYCLED MATERIALS COMMITTEE

4003 – NTSB INVESTIGATIONS

4086 – RECYCLING AGENTS: STATE OF THE PRACTICE AND WHERE THE RESEARCH IS TAKING US

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Takeaways and Highlights

Rachel Wassel, Continuous Improvement, BUILD

THE ESSENCE OF DATA GOVERNANCE

Data governance establishes the policies, procedures, and accountabilities for managing an organization's data assets, ensuring data quality, security, and compliance.

SUPPORTING KNOWLEDGE MANAGEMENT

Effective data governance enables organizations to effectively manage and leverage their knowledge assets, facilitating informed decision-making and enabling employees to access and utilize relevant data.

ENABLING AI-DRIVEN INSIGHTS

With robust data governance in place, organizations can leverage the power of AI and machine learning to derive valuable insights from their data, driving innovation and improving business outcomes.

Presented by Lorri Economy, Utah Department of Transportation
From Workshop 1011: The Convergence of Data Governance, Knowledge Management, and Information Management

Data governance and knowledge management are critical infrastructure.

Rachel Wassel Additional Takeaways

- Innovation is imperative. Failure is not something to fear **IF** we learn from it.
  - Innovation starts in the day-to-day work.
  - Develop a systems thinking perspective to help folks think about how their work is connected to bigger things.
  - Innovation can be working across silos and connecting with new parts of the agency or State Government
- AI is coming (*hint* its already here) and we have exciting opportunities. AI won't replace human decision making but can aggregate data and sense patterns at a grand scale.
  - What might you do with extra time? "Hours repurposed for higher value".