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The Road to Practical AI in the Transportation Sector: A Report from the Transportation Initiative at Penn Launch Event

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Image by Paul Lichtblau on Unsplash

Summary

The Transportation Initiative at Penn (TRIP) brings together scholars, students, public agencies, and private partners to co-create practical, scalable, and impact-driven solutions to today's most urgent mobility challenges. Founded by Leslie Richards, an internationally recognized leader with experience running both a state department of transportation and one of America's largest transit systems, TRIP is focused on bridging the longstanding gap between research and implementation—turning ideas into action.

On October 17th, 2025, TRIP hosted a launch event focused on practical applications for Artificial Intelligence (AI) in the transportation industry featuring over twenty senior executives from across the public and private sectors. Key topics discussed included:

- How public agencies can create a culture of innovation
- Opportunities to accelerate the adoption of technologies that have tangible impacts on operations, maintenance, and safety
- Bridging research and practice
- Managing transparency and privacy while deploying new technologies
- The role well executed public-private partnerships can play in driving better outcomes in transportation
- AI's potential impacts on the workforce
- How to responsibly deploy AI in public agencies
- Lessons learned on how to lead an organization in a time of rapid technological change

"We all need to be scrappy sometimes, not think about the most elegant solution, and just get something out there"

-Leigh Palmer, Vice President, Google Public Sector

Innovator Spotlight: **SahayAI**

Tejas Agarwal | Founder

Incubated at Penn, SahayAI uses state of the art sensing, machine vision, and AI to provide rail agencies with real time asset monitoring, predictive maintenance, and down detection. Throughout their product development, SahayAI adapted their technologies as both new customer needs were identified and as AI tools evolved. Critically, the company is not focused on eliminating existing jobs in the industry, but unlocking completely new capabilities that can enhance safety, reduce costs, and increase system reliability.

Key Insights

While the conversation was wide ranging, touching on everything from high-level leadership lessons to deep technical challenges, the panelists identified several insights that are applicable both in the transportation sector and for any organization looking to adapt in a rapidly evolving technological environment.

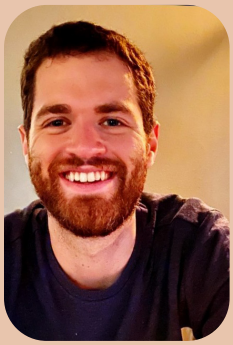
1. Organizations of all sizes need to be "scrappy"
There is not one right way to integrate new technologies into a complex organization, so it is essential to find an entry point that matches organizational needs, ethics, and capabilities and iterate quickly.

2. Leaders need to make dedicated time and space for innovation
Time is a limited resource in all organizations, but particularly in public agencies that are often under-resourced and responsible for safety critical operations which require constant attention. Executives need to create an incentive structure and specifically designated opportunities for their teams to pursue new, innovative, projects.

3. Public agencies NEED to steal the best ideas from each other and be honest about their failures
The success, and failures, of emerging transportation technologies are all too often hidden away within public agencies or fail to jump across siloed sectors. Executives at all levels and in related, but often disconnected, industries like highways, transit, and aviation, need more opportunities to frankly discuss what innovations are, and are not, delivering value to their stakeholders.

"Innovation is the silver lining of well managed failure"

--Mike Carroll, Deputy Managing Director, Philadelphia's Office of Transportation and Infrastructure Systems



Innovator Spotlight: **Jawnt**

Jeff Stade| Co-Founder

Incubated by Jeff Stade while studying Urban Planning at Penn, Jawnt focuses on making the often confusing and time consuming process of accessing transit benefits easy for employers, employees, and transit providers simple. By utilizing AI and machine learning, Jawnt is able to integrate a wide variety of backend systems to create a streamlined process for delivering transit to individuals from New York City to the Bay Area and everywhere in between. Understanding the specific pain points in each link of the chain that delivers commuter benefits allowed them to rapidly expand their partner network.

4. Trust is essential to innovation

Even the best innovations will fail if the public, your board, or staff do not trust the underlying technologies or the way the organization procures, implements, or manages them. Public sector leaders need to be open and honest with all their stakeholders, be prepared to take accountability for failures, and be effective storytellers for non-technical and technical audiences alike.

5. Great research can't just sit on the shelf

Public sector leaders are hungry for technical insights that only the academic community can provide on a wide range of tech and innovation issues. However, the incentive structures for researchers, time demands on executives, and cultural mismatches often slow the process of translating research into practice. More frequent and deeper engagement between the research and practice community is essential to accelerating technology deployment in the transportation sector to ensure the continued development of safer, more efficient, and equitable systems.

Participants

- Tejas Agarwal, Founder, SahayAI
- Eugénie Birch, Co-Director, Penn Institute for Urban Research
- Carlos Braceras, CEO, Utah Department of Transportation
- Michael Carroll, Deputy Managing Director, City of Philadelphia OTIS
- Randy Clarke, CEO, Washington Metropolitan Area Transit Authority
- Mark Compton, CEO, Pennsylvania Turnpike Commission
- Garrett Eucalitto, Secretary, Connecticut Department of Transportation
- Rich Farr, Executive Director, Rabbittransit
- Diane Gutierrez-Scaccetti, National Practice Consultant and Senior Vice President, HNTB
- Shanté Hastings, Secretary, Delaware Department of Transportation
- Debra Johnson, General Manager and CEO, Regional Transportation District
- Nadine Lee, CEO, Dallas Area Rapid Transit
- Leigh Palmer, Vice President, Google Public Sector
- Leslie Richards, Director, Transportation Initiative at Penn
- Megan Ryerson, Chair, Department of City and Regional Planning
- Atif Saeed, CEO, City of Philadelphia Department of Aviation
- Liz Smith, Transit and Surface Transportation Market Lead, Northeast Region, AtkinsRéalis
- Jeff Stade, Co-Founder, Jawnt
- Sabrina Sussman, Chief Program Officer, Metropolitan Government of Nashville & Davidson County
- Marie Therese Dominguez, Commissioner, New York State Department of Transportation
- Susan Wachter, Co-Director, Penn Institute for Urban Research

About The Transportation Initiative at Penn

The Penn Institute for Urban Research (PennIUR), a university-wide body focused on urban decision- making and public policy, serves as an incubator for The Transportation Initiative at Penn (TRIP). The Initiative launched in 2025 under the direction of Leslie Richards, a recognized leader in transportation with prior roles as the CEO of the fifth largest DOT in the U.S., PennDOT, and the sixth largest transit agency — SEPTA. Leslie and the TRIP team look forward to bringing together the best minds across Penn and the globe to problem-solve the most pressing issues and advances in transportation today.

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Get Involved

TRIP actively engages students, faculty, transportation agencies, and private partners in research and pilot projects, including:

- TRIP actively engages students, faculty, transportation agencies, and private partners in research and pilot projects, including:
- Artificial intelligence and predictive analytics for crash prevention, preventative maintenance, and congestion management
- Smart infrastructure that adapts to user behavior in real time
- Mobility data platforms to support smarter decision-making
- Sensor technologies that enhance roadway safety and transit reliability

Join us in shaping the future of transportation. You can follow TRIP's work at:
https://penniur.upenn.edu/initiatives/transportation-initiative-at-penn

For information about sponsorship opportunities contact:
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