What is TPEC?

➢ Transportation Policy and Economic Competitiveness Program (TPEC) is a research program within...
  ➢ The Humphrey School of Public Affairs
  ➢ The State and Local Policy Program
  ➢ The Center for Transportation Studies

➢ TPEC Research focuses on...
  ◆ Finance
  ◆ Industry Clusters and Freight
  ◆ Technology
TPEC: What Does Our Work Look Like?

- TPEC aims to conduct research, create tools for policymakers, and engage in outreach to increase understanding of the relationships between transportation and economic development.
- Resources for policy makers include:
  - Minnesota Transportation Finance database
  - National Freight Economy Atlas
  - SDV Task Force & Usability Matrix

Why Automated Vehicles?

SAFETY

- **United States**
  - 40,100 in USA in 2016
- **Worldwide**
  - 1.25 Million Deaths in 2013
  - 50+ million Injuries
  - 65+ Million Deaths in 20th Century
  - Approximately WW II causalities
  - Economic Cost > $500 Billion/year

90% percent of accidents caused by driver’s error
The SDV Task Force & The Usability Matrix

- Convened to examine potential impacts of SDV technology on "transportation disadvantaged" populations in MN
- Strategic group of elected officials, policy experts, social advocates, MnDOT and more
- Identified disparities in SDV technology and helped facilitate outreach in Greater Minnesota

➢ A tool developed by the SDV Task Force
➢ A table to analyze current and needed SDV deployment models
➢ SDV Task Force identified
  o A need for for outreach with Greater Minnesota
  o What SDV models can serve rural and suburban transit needs?
Usability Matrix

TPEC Outreach in Greater Minnesota

- SDV Task Force identified a need for SDV outreach in Greater Minnesota
- TPEC is conducting listening and learning sessions in communities around the state.

Objectives:
- Share TPEC & SDV Task Force work and findings.
- Hear stakeholder’s thoughts and opinions on SDV technology, SDV equity issues, and SDV implementation in rural settings
- Better understand current and forecasted transportation needs of the community
How does Self-Driving Technology interest you?

Demographic Data

A. Freight and agriculture background
B. Various implementation models
C. Concerns: infrastructure, cost, or safety
What is your familiarity with the Autonomous Vehicles?

A. Very familiar
B. Somewhat familiar
C. Not very familiar
D. Not at all familiar

What is your opinion about Autonomous Vehicles?

A. Favorable
B. Neutral/Not sure
C. Unfavorable
What is your most pressing transportation problem in the region?

A. Lack of public transportation
B. Poor infrastructure
C. Lack of drivers
D. Lack of accessibility for seniors and transit disadvantaged?
E. Insufficient funding (transit and/or infrastructure)
F. Other

What is your first concern about Autonomous Vehicles?

A. Cost of Implementation
B. Impacts on Existing Infrastructure
C. Impacts on the Economy
D. Concerns about the Emerging Technology
E. Concerns about Safety and Security Implications
What do you see as the greatest benefit that Autonomous Vehicles can offer to your community?

A. More Equitable Transit Opportunities
B. Improved Accessibility
C. Improved Safety
D. Economic Growth

How Can Communities Effectively Prepare for SDV Technologies?

Rural / Small Towns?
- Greater efficiency in low density?
- Last mile complement to existing service?
- Age in place?
- Exactly who?
What Should We Be Doing Right Now?

- No more parking ramps with sloped floors
  - May need to repurpose those buildings
- 5G
  - Figure out how we are going to help all of the drivers (bus, truck, train, cab) that will lose their jobs
- Planning/Land Use regulations
- Answer the VMT question
  - Roadways and bridges

Thank you

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