Update from TRB: Setting the Stage for CAVs

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I-95 Corridor Coalition: CAV Conference
June 21, 2016
NCHRP Overview

- National Cooperative Highway Research Program
- Funded voluntarily by state DOTs
- “AASHTO’s Research Program” for over 50 years
- $40M annual budget
- Focused on applied research addressing state DOT issues
- Managed by the Transportation Research Board
NCHRP Legal Digest 69

A Look at the Legal Environment for Driverless Vehicles

- Civil liability for personal injury
- Criminal law and procedure
- Evolving insurance matrix
- Privacy and security laws
- Legislative and regulatory issues
- Sustainability issues: land use, environment, infrastructure
NCHRP 20-102

Impacts of CVs and AVs on State and Local Transportation Agencies

• Project approved in December 2014
• $3.5M authorized to date; likely additional $ in future years
• Panel decides which tasks to pursue
  • Principally from a research roadmap developed in NCHRP Project 20-24(98)
• Contractors selected through limited closed competition
NCHRP 20-102: Active Tasks (1)

- Implications of automation for motor vehicle codes ($350k)
- Providing support to the introduction of CV/AV impacts into regional transportation planning and modeling tools ($300k)
- Dedicating lanes for priority or exclusive use by CVs and AVs ($350k)
- Road markings for machine vision ($200k)
- Evaluation Guidance for AV Pilot and Demonstration Projects ($70k)
NCHRP 20-102: Active Tasks (2)

- Policy and planning actions to internalize societal impacts of CV and AV systems into market decisions ($400k)
- Impacts of regulations and policies on CV and AV technology introduction in transit operations ($150k)
- Challenges to CV and AV applications in truck freight operations ($150k)
- Strategic communications plan for NCHRP 20-102 ($100k)
Automated Vehicles Symposium

- July 19-21, 2016 in San Francisco
- 1,000 attendees expected
- Sessions and breakouts include:
  - Policy Making for Automated Vehicles: A Proactive Approach for Government
  - Law & Policy as Infrastructure
  - Ethical and Social Implications
  - “AV-Ready Cities” or “City-Ready AVs?”
AVS 2015 Takeaways (1)

• Private sector is moving ahead, with or without public agencies – investing billions in R&D

• Conventional public agency approaches to research may need to be reexamined.
  • Timeframes do not match transformational technologies
  • Historically looking backwards for guidance vs. looking forward for scenario planning
AVS 2015 Takeaways (2)

• Research is needed to inform policy makers and public agencies based on fact, not sensationalism or extremes

• Mechanisms needed to coordinate and share research

• How safe is safe enough? Society is not likely accept even a small number of deaths caused by CAVs, even if net deaths decrease
Research Partners Symposium

- October 31 – November 1, 2016 in Detroit
- Partnerships to enable research and innovation for public agencies
- Topics include:
  - CAVs
  - Shared use systems
  - Unmanned aerial systems
  - NextGen
  - Big data
  - Cybersecurity
  - Smart cities
  - Internet of things
  - Alternative vehicle fuels
2015/2016 TRB CAV activities

• Automated Vehicle Symposia
  • July 20-24, 2015: Ann Arbor, MI
  • July 18-22, 2016: San Francisco, CA


• University Transportation Centers Symposium on Connected/Automated Vehicles, November 4-5, 2015: Washington, DC
2015/2016 TRB CAV activities

- Impacts of Automated Vehicles on State and Local Transportation Agencies (NCHRP 20-102)
- Review of USDOT Report on Connected Vehicle Initiative Communications Systems Deployment
- Urban Mobility Systems: TRB Policy Study (December 2015)
- Online community for TRB standing committees
- www.trb.org/main/transtech.aspx
What should you do?

• Attend Research Partners Symposium in Detroit
• Participate in TRB committees
• Submit research papers for TRB Annual Meeting (deadline August 1)
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