

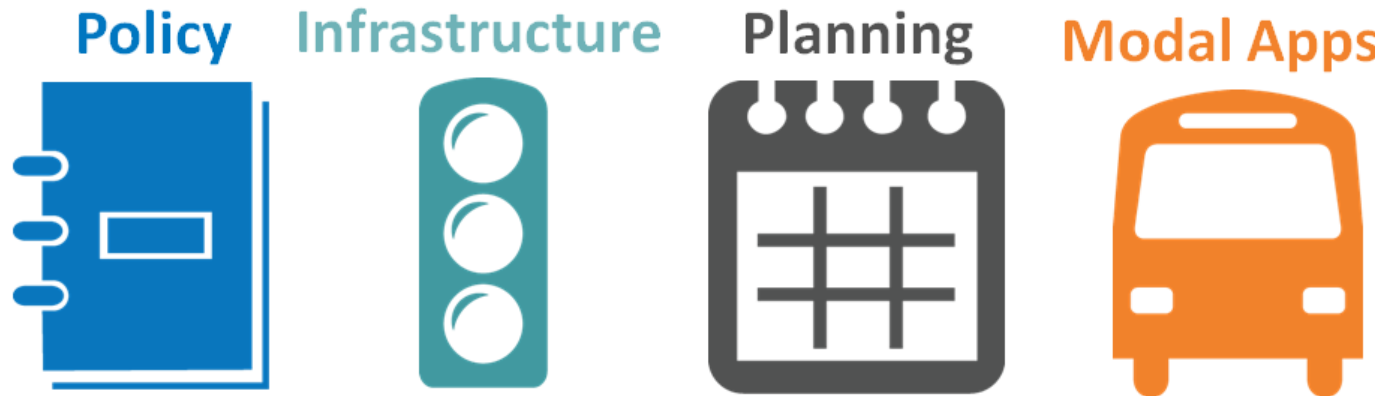


Impacts of CVs and AVs on State and Local Transportation Agencies

Ray Derr

NCHRP CV/AV Research Roadmap

- Over 100 issues facing state and local agencies identified and prioritized
- 23 problem statements developed (\$15M)
- Roadmap available at <http://trb.org>
(Projects/Find a Project/{Project Number}20-102)



TRANSPORTATION RESEARCH BOARD

Impacts of CVs and AVs on State and Local Transportation Agencies [NCHRP 20-102]

- NCHRP Project 20-102 approved in Dec 2014
- \$3.5M authorized to-date; additional funds expected in future years
- Panel decides which tasks to pursue, principally from the research roadmap



TRANSPORTATION RESEARCH BOARD

NCHRP 20-102 Panel

Kazem Farhoumand, RI DOT (ret.)

Shailen Bhatt, CO DOT

Giovanni Circella, GA Tech

David Huft, SD DOT

Ed Hutchinson, FL DOT

Sherif Ishak, LSU

Melissa Lance, VA DOT

Greg Larson, CA DOT

Jerome Lutin, Consultant

Siva Narla, ITE

Tom Schaffnit, VII Consort.

Michael Shulman, Ford

Matt Smith, MI DOT

Paul Trombino, IA DOT

Emil Wolanin, Montgomery Co.
(MD)

Volker Fessmann, FHWA

Kevin Dopart, U.S. DOT

Anita Kim, Volpe

Patrick Son, ITS America

Gummada Murthy, AASHTO

Mark Norman, TRB



TRANSPORTATION RESEARCH BOARD

NCHRP 20-102 Tasks

#	Title	FY 2016	FY 2017	Status
01	Policy & Planning Strategies	\$400k		Underway
02	Transit Operations	\$150k		Underway
03	Freight Operations	\$150k		Underway
04	Evaluation Guidance	\$75k		On Hold
05	Communications Plan	\$100k		On Hold
06	Markings for Machine Vision	\$200k		Underway
07	Motor Vehicle Codes		\$350k	Negotiation
08	Dedicated Lanes		\$350k	Negotiation
09	Regional Planning & Models		\$300k	Negotiation



TRANSPORTATION RESEARCH BOARD

Policy and Planning Actions (Task 01)

- Interim Report on Project Webpage
 - Outlines governmental/agency strategies to improve impacts of private-sector decisions on crashes, congestion, pollution, land development, & mobility
- 12 strategies being more fully developed



TRANSPORTATION RESEARCH BOARD

Policy & Planning Strategies

- Apply road and parking pricing to minimize VMT growth
- Accelerate CV market penetration through subsidies (OEM & retrofit)
- Subsidize shared-vehicle services to minimize VMT growth, increase vehicle occupancy, and support ridesharing and transit services, including paratransit
- Create economic incentives to support market penetration of shared AVs near transit nodes, urban centers, and commercial centers
- Establish CV and AV operator/owner/passenger requirements
- Restructure liability, including insurance, to accelerate market penetration
- Implement land use regulations and parking requirements to support shared AVs
- Enact legislation to stimulate CV or AV testing
- Invest in CV infrastructure in collaboration with the private sector
- Grant AVs and CVs privileged access or services
- Increase public awareness through education, training, communication, and outreach to stimulate consumer action and supportive public investment
- Implement new contractual mechanisms with private service providers, including shared data



TRANSPORTATION RESEARCH BOARD

Road Markings for Machine Vision(Task 06)

- Supporting Joint AASHTO/SAE Task Force
- Kick-Off Meeting held on June 1
- Objective: develop information on the performance characteristics of pavement markings that affect the ability of machine vision systems to recognize them
- Panel includes Tim Crouch & Mark Bott



TRANSPORTATION RESEARCH BOARD

Upcoming Activities

Jul 19-21--Automated Vehicle Symposium,
San Francisco

Jul 22--NCHRP 20-102 Panel selects
\$1.5M worth of new tasks, mostly based
on the research roadmap

Oct/Nov--TRB Symposium on
Transformational Technologies Affecting
Transportation



TRANSPORTATION RESEARCH BOARD