

Innovation & Emerging Technologies

Infrastructure Readiness for Connected Vehicles & Traffic Signal Performance Measure Applications

*Midwest TSMO Peer Exchange – Milwaukee, WI
September 13th & 14th, 2016*

Topics to Consider

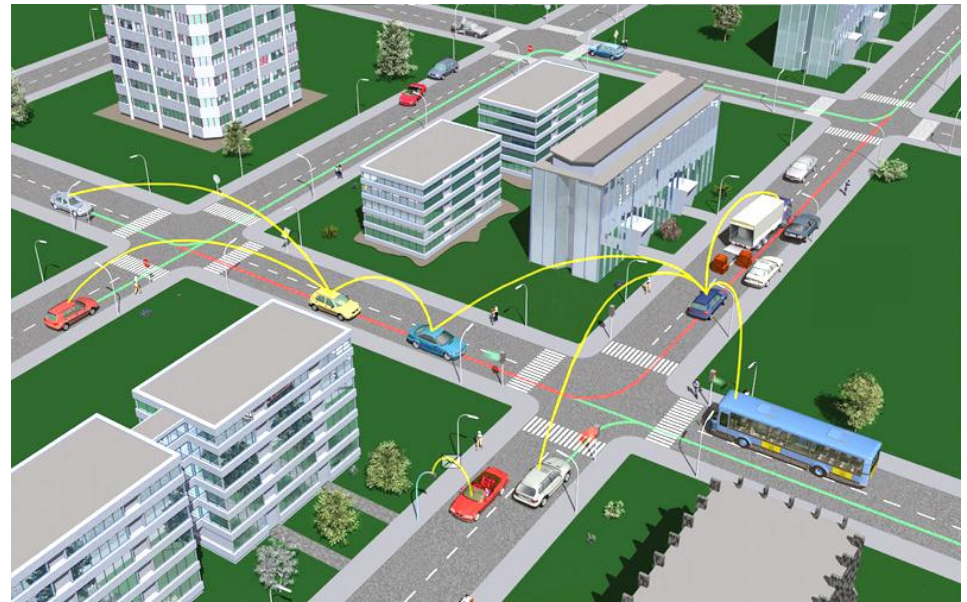
i.e., What are we talking about today?

- Technology to support connected vehicle communications
- Needs for autonomous vehicle support
- Hardware needs for performance measures
- Institutional/policy practices & challenges

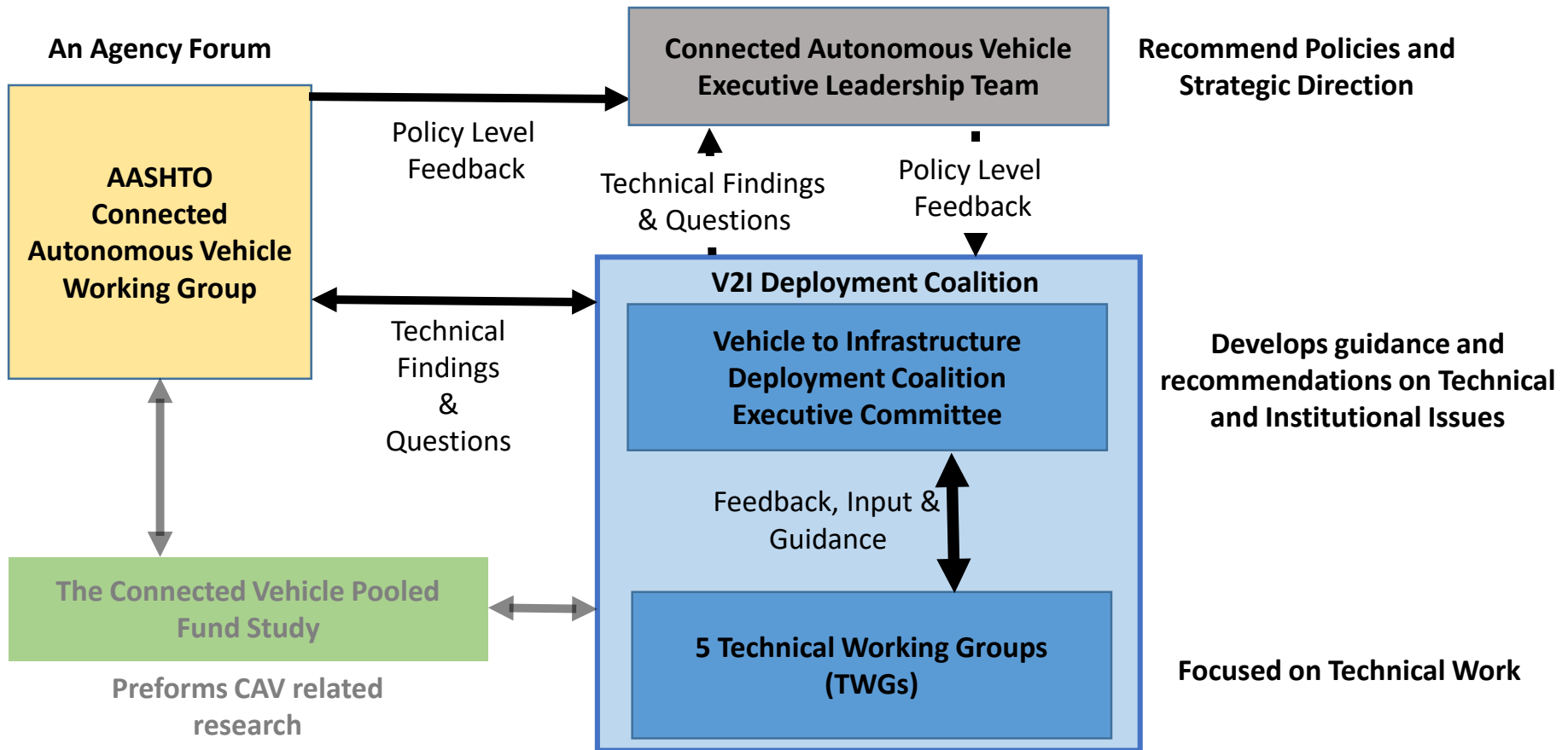
The Connected/Autonomous Vehicle (CV/AV) Effort

Key Players

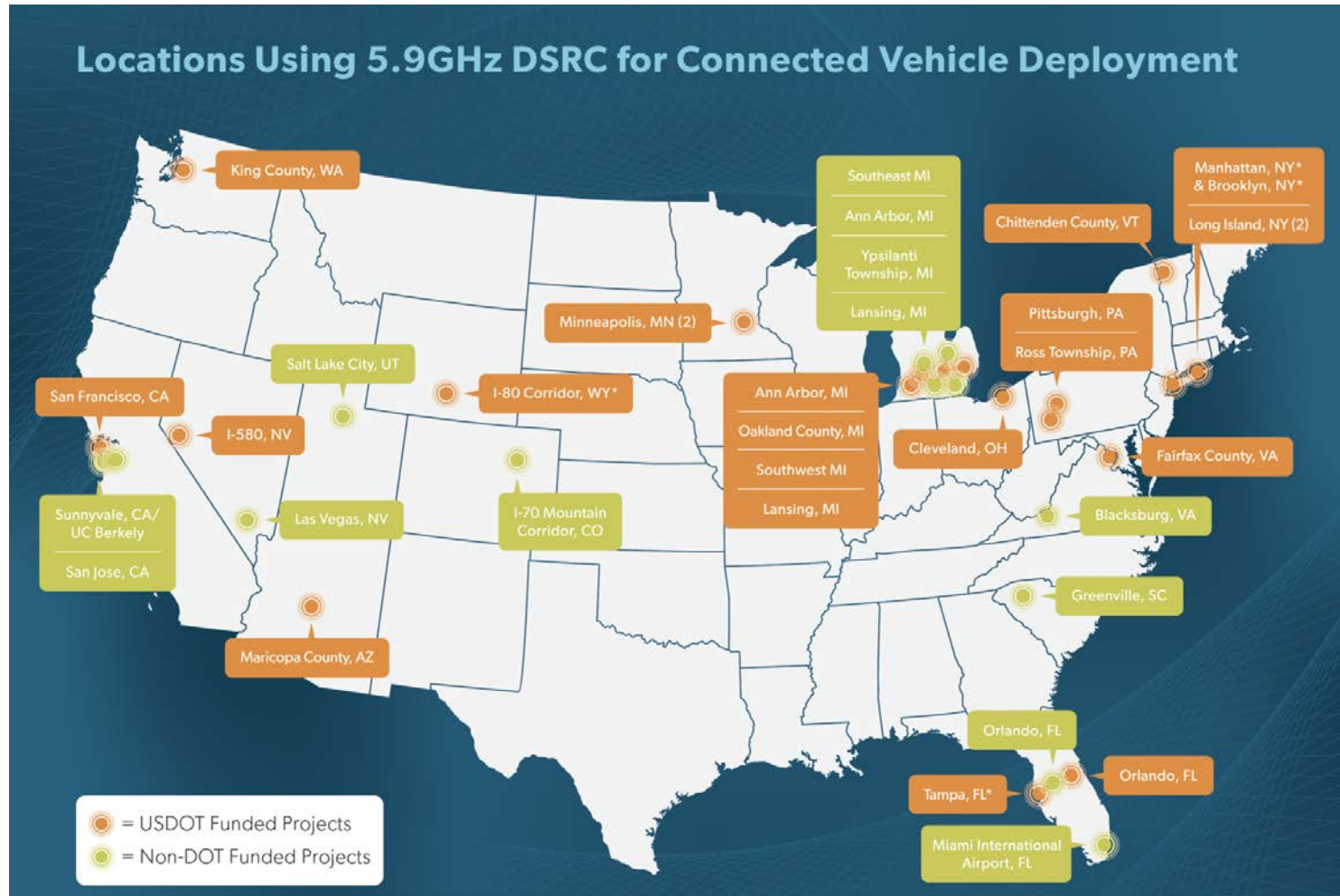
- *Connected Vehicle Executive Leadership Team (ELT)*
- *V2I Deployment Coalition*
- *AASHTO Connected Autonomous Vehicle Working Group*
- *The Connected Vehicle Pooled Fund*



Who is Doing What: The CV/AV Entities



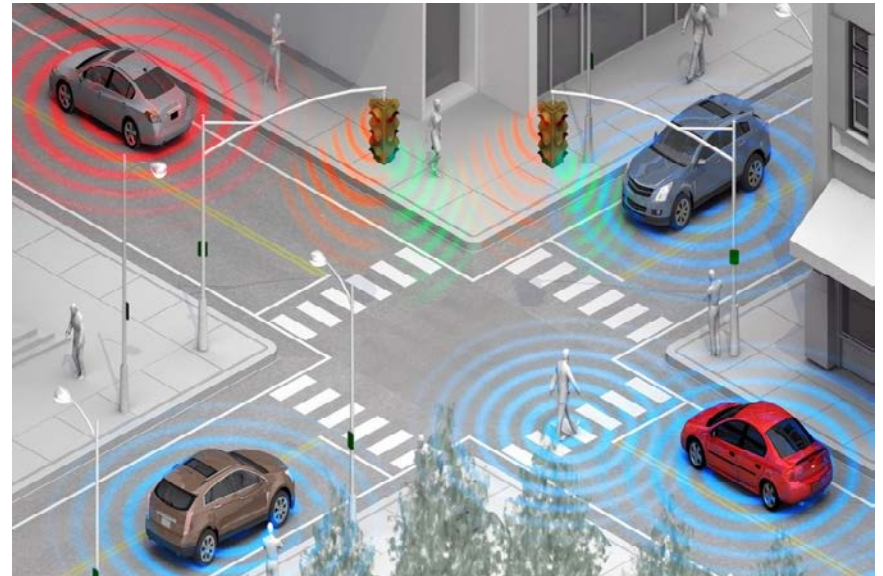
Who is Doing What: Agencies & Research



National Connected Vehicle Deployment Challenge *aka, the “SPaT Challenge”*

So, what is SPaT?

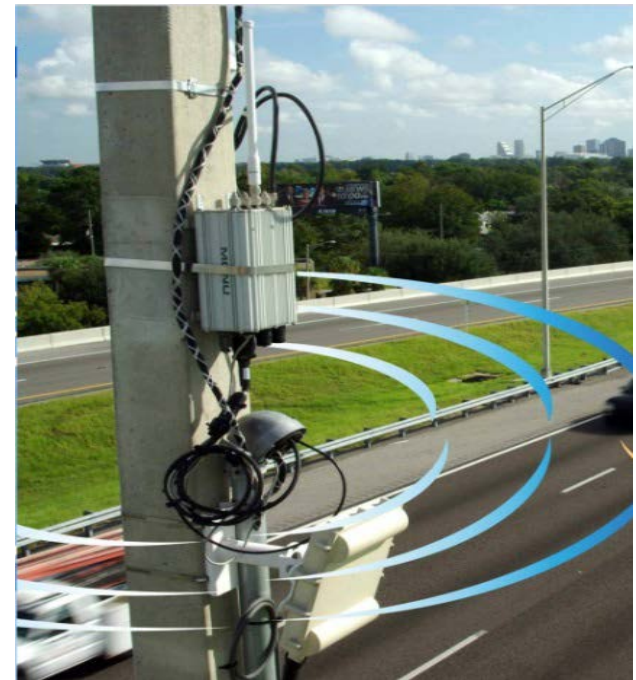
- Signal Phase and Timing (SPaT) messages define current intersection signal phases.
- Current state of all lanes at the intersection is provided, along with active pre-emption or priority.



National Connected Vehicle Deployment Challenge

The Challenge:

- To get infrastructure owner-operators (IOOs) to deploy DSRC infrastructure with SPaT broadcasts in at least one corridor (approximately 20 signalized intersections) per state by 2020.



National Connected Vehicle Deployment Challenge

Why this Challenge?

- Provide IOOs with an entry into DSRC-based V2I deployment
- Lay the groundwork for more advanced V2I deployments
- Show a commitment to OEMs and developers



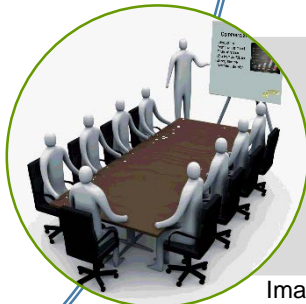
NOCoE's Role in Advancing Innovation



Website



Knowledge Center



Technical Services

Image courtesy- ourkittery.com

WELCOME TO THE NATIONAL OPERATIONS CENTER OF EXCELLENCE

CALIFORNIA DOT VIDEO SHOWS HOW AGENCY GOT READY FOR SUPER BOWL 50



In this [News Flash](#), Caltrans District 4 Public Affairs Chief Myeast McCauley explains how Caltrans' preparations and close cooperation with their partners kept Bay Area traffic moving smoothly in February on Super Bowl Sunday.

[Previous](#)

[Next](#)

DISCUSSION FORUM

[View all Forum Categories](#)

Latest Topics

Do you need an account? [Register Today](#) | [Login](#)

HEADLINE NEWS

[View All](#)

[USDOT Updates the Connected Vehicle Reference Implementation Architecture and the Systems Engineering Tool for Intelligent Transportation](#)

May 06, 2016

[PennDot Looking at Challenges of Self-Driving Technology](#)

May 05, 2016

[New Connected Vehicle Data Environments from the Following Projects are Now Available in the Research Data Exchange](#)

May 05, 2016

Headline News

Industry Developments

Upcoming Events

Center News

Most Recent Post

REGIONAL OPERATIONS FORUMS

Regional Operations Forums (ROFs), developed by the second Strategic Highway Research Program (SHRP2) and the Transportation Research Board (TRB), provide practitioners with new and innovative approaches for managing and operating the highway system, drawing from the cutting edge work being carried out under the SHRP2 program and

WELCOME TO THE NATIONAL OPERATIONS CENTER OF EXCELLENCE

CALIFORNIA DOT VIDEO SHOWS HOW AGENCY GOT READY FOR SUPER BOWL 50



In this [News Flash](#), Caltrans District 4 Public Affairs Chief Myeast McCauley explains how Caltrans' preparations and close cooperation with their partners kept Bay Area traffic moving smoothly in February on Super Bowl Sunday.

[Previous](#)

[Next](#)

DISCUSSION FORUM

[View all Forum Categories](#)

Latest Topics

[Do you need an account? Register Today](#) | [Login](#)

April 22nd Webinar: Performance

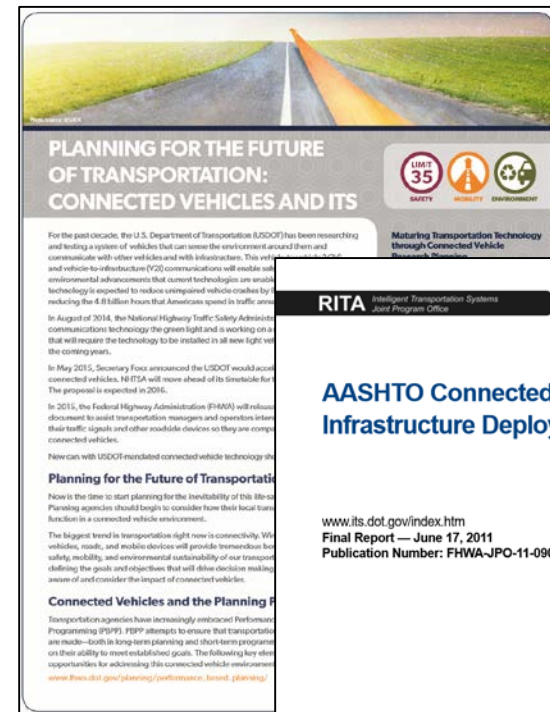
NOCoE Website

- Knowledge Center
- Discussion Forum
- Events Calendar
- TSMO Resources
- Why TSMO?
- News & Blog

with new and innovative approaches for managing and operating the highway system, drawing from the cutting edge work being carried out under the SHRP2 program and other national programs. Participation in an ROF provides the strategies, technologies and practices needed to advance

Knowledge Center

- Over 1,200 on-demand technical resources
- Archive of V2I Deployment Coalition Webinars
- ITS-JPO ePrimer Modules
- Emerging policy & performance measures for CV/AV applications
- Agency case studies & best practices



Technical Services

- Peer Exchanges
 - TODAY!!!
 - Automated Traffic Signal Performance Measures
- National Summit
 - June 2016: Workforce Development
- Webinars
 - June 2016: FCC Reallocation of 5.9 GHz spectrum



**Peer
Exchanges
in Action!**

Technical Services

- Peer Exchanges
 - TODAY!!!
 - Automated Traffic Signal Performance Measures
- National Summit
 - June 2016: Workforce Development
- Webinars
 - June 2016: FCC Reallocation of 5.9 GHz spectrum



**Peer
Exchanges
in Action!**

Our ask of you!

- Register for the webinars/forums/newsletter
- Continue to partner on technical events
- Share your own knowledge resources
- Add the NOCoE logo/link to website
- Provide feedback on technical services

Get Involved with NOCoE!



www.transportationops.org



@NOCoEOp1



National Operations Center of Excellence



pson@transportationops.org