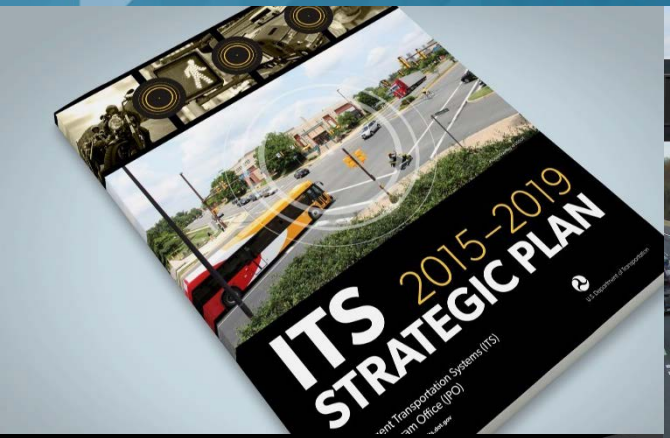
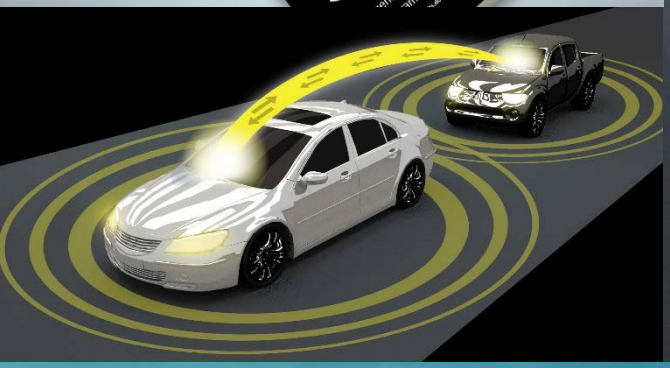
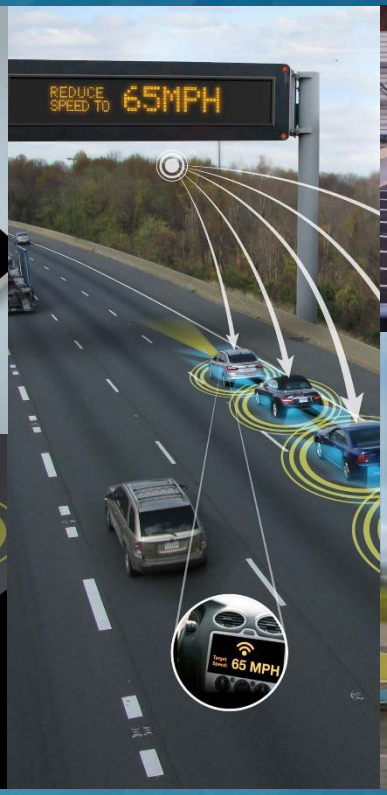
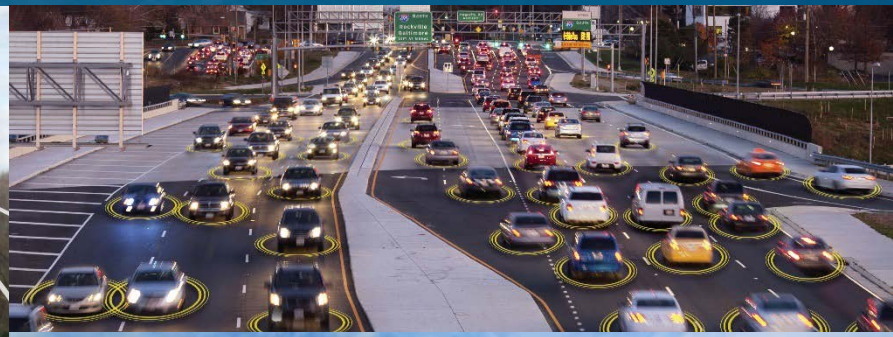
U.S. Department of Transportation









2017 ITS WORLD CONGRESS
ES07: ITS DEPLOYMENT POLICIES

Ken Leonard
ITS Joint Program Office
U.S. Department of Transportation

Montreal, Canada
Wednesday, November 1, 2017

THE SCALE OF THE PROBLEM IN THE U.S.

Safety

- 37,461 highway deaths in 2016
- 6.29 million crashes in 2015
- Leading cause of death for ages 11, 16-24

Mobility

- 6.9 billion hours of travel delay
- $160 billion cost of urban congestion

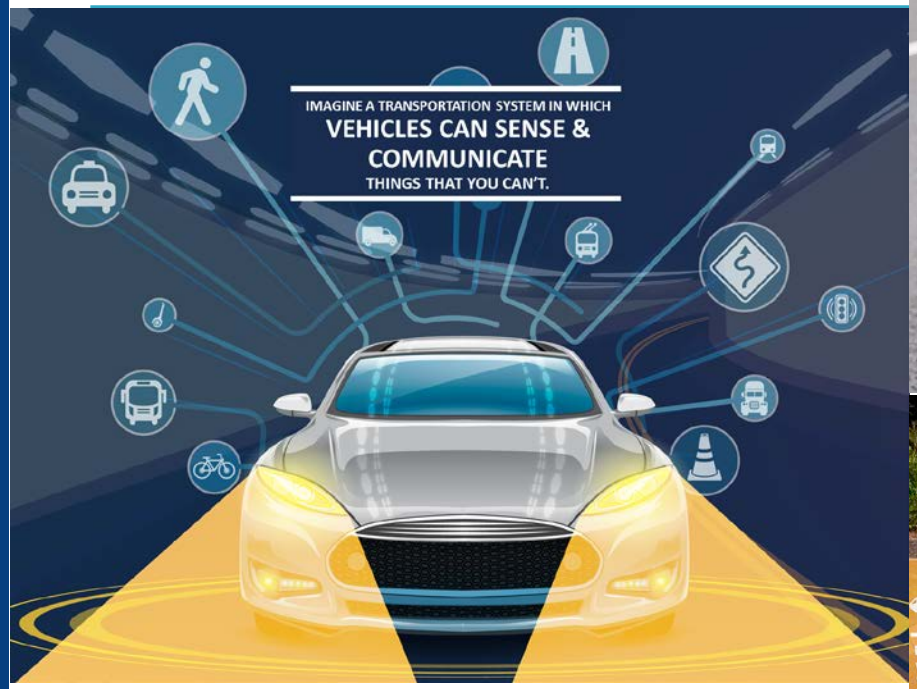
Environment

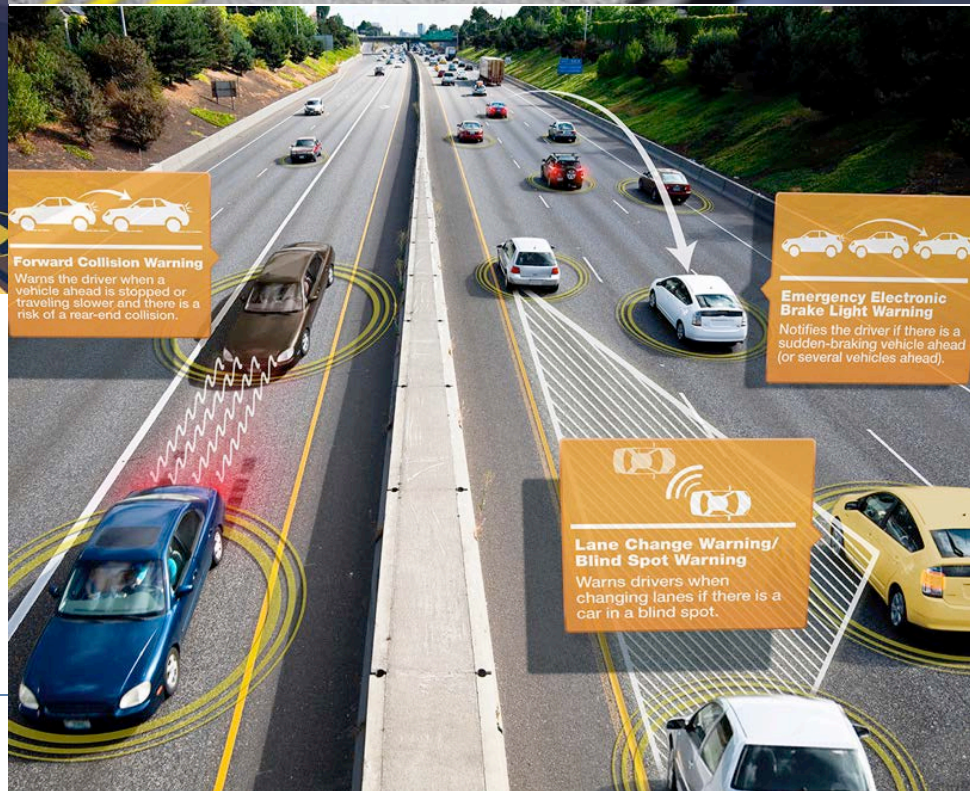
- 3.1 billion gallons of wasted fuel
- 56 billion lbs of additional CO_2

Data Sources:

Quick Facts: 2016 Data, National Highway Traffic Safety Administration (October, 2017); 2015 Annual Urban Mobility Report, Texas Transportation Institute (Aug 2015); Centers for Disease Control

THE OPPORTUNITY…





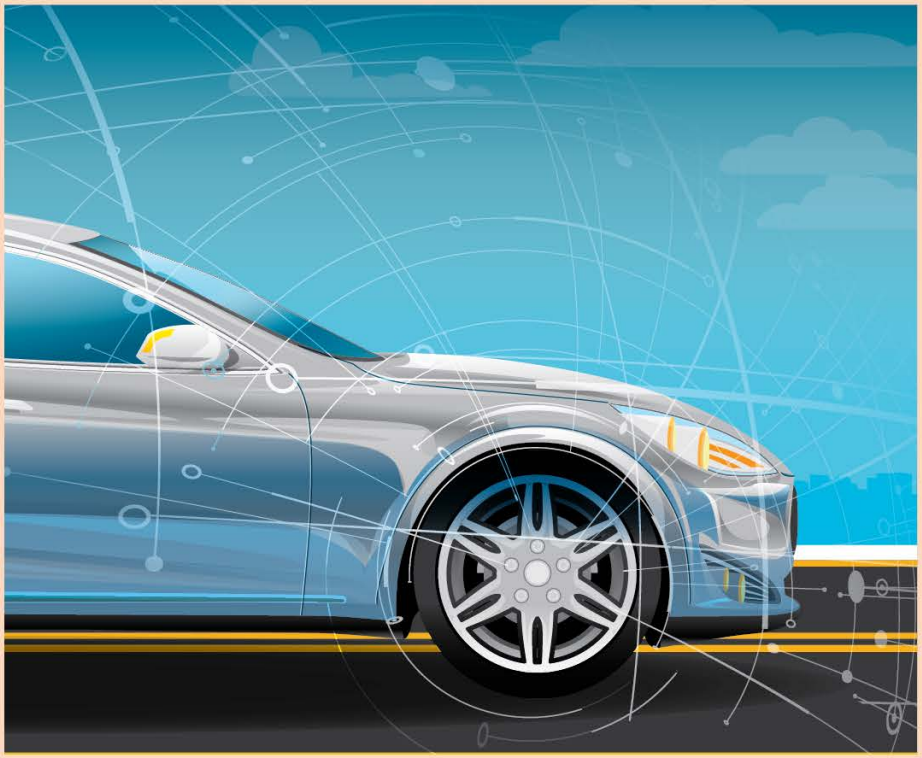
CONNECTED VEHICLES

- Save lives by significantly reducing traffic accidents
- Make travel easier, more efficient, and more enjoyable
- Reduce fuel consumption

BEYOND CONNECTED TO AUTOMATED

Connected-Automated Vehicles

Self-driving cars will need connected vehicle technology

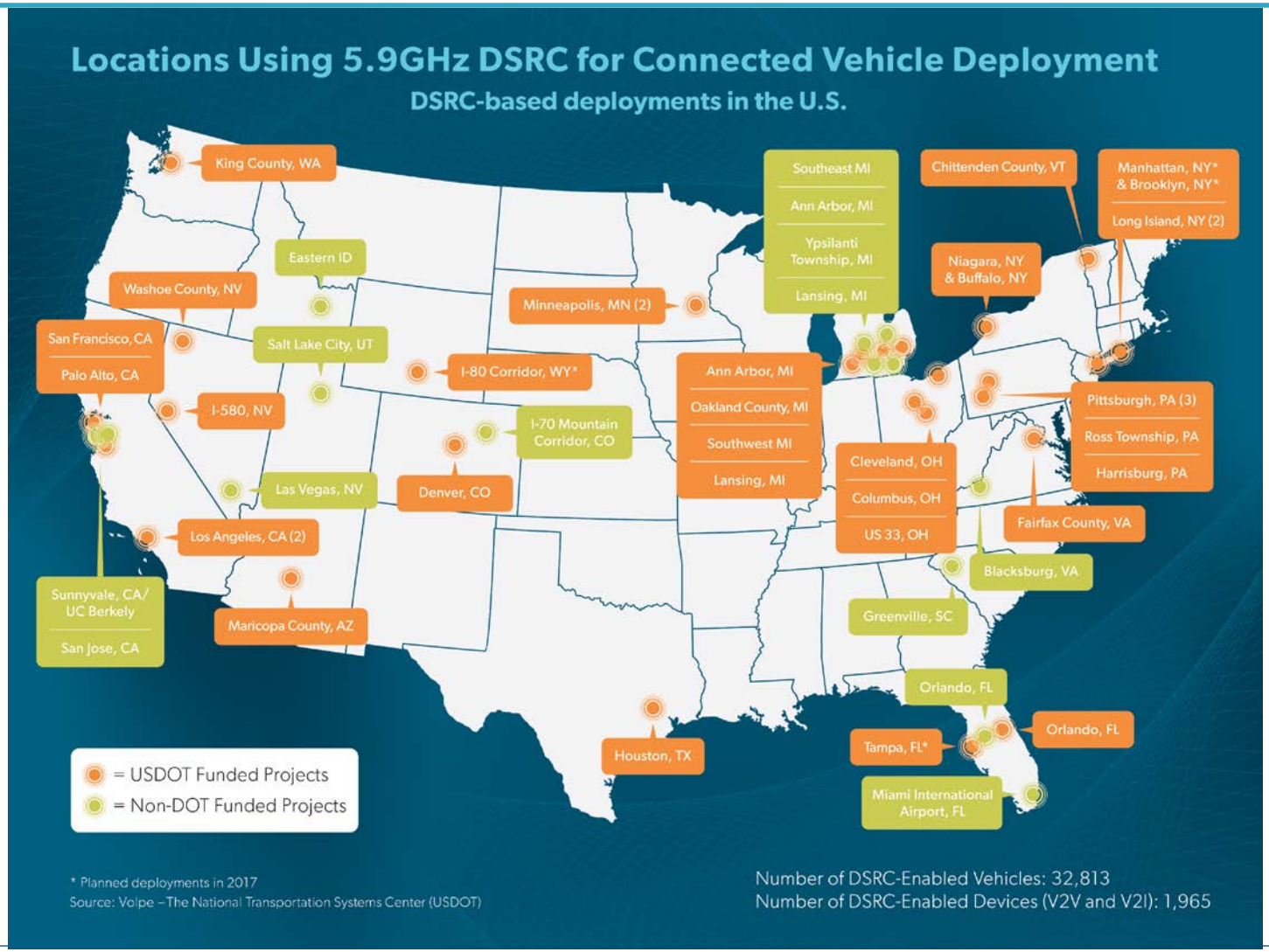


- Connectivity
- Situational Awareness
- Multi-Sensor Integration
- Cybersecurity
- Interoperability

AUTOMATION IS A TANGIBLE REALITY…

COORDINATING THE ITS ENVIRONMENT

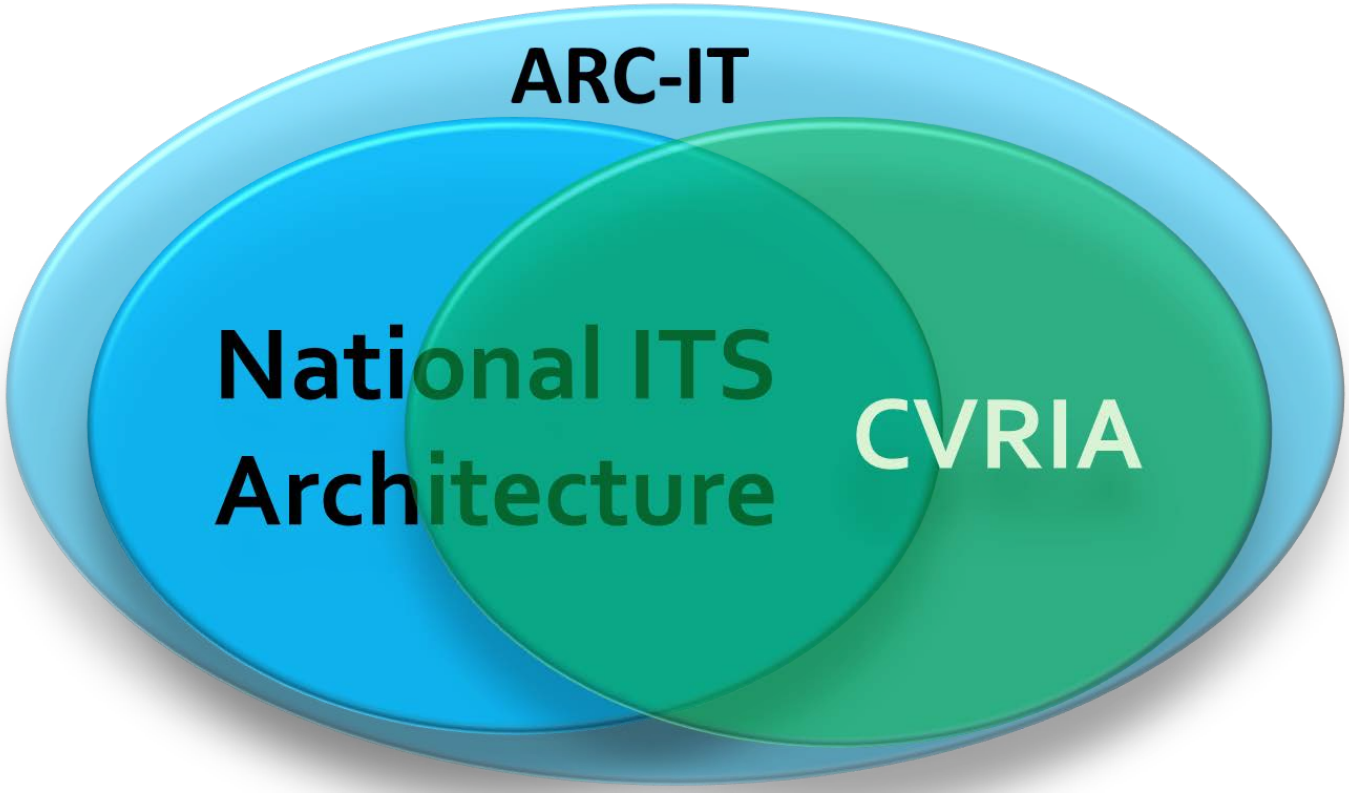
ACCELERATING DEPLOYMENTS OF CONNECTED VEHICLE TECHNOLOGY



PROVIDING A COMMON FRAMEWORK FOR PLANNING, DEFINING, AND INTEGRATING ITS

ARC-IT Version 8.0

Including the National ITS Architecture and CVRIA



SECURING THE COMMUNICATIONS SYSTEM

SCMS will provide security credentials for trusted DSRC communications for:

- Connected Vehicle Pilots
- Smart communities
- ATCMCD grantees
- Other early deployers of connected and automated vehicle technologies

PROVIDING A VISION FOR SAFE AUTOMATION…

Source: USDOT NHTSA *Automated Driving Systems 2.0: A Vision For Safety*

FUNDING OTHER ITS DEPLOYMENTS

Advanced Transportation and Congestion Management Deployment (ATCMTD) Program

TRAINING THE ITS WORKFORCE OF THE FUTURE

ITS Professional Capacity Building Program

- Build and sustain a capable and technically proficient ITS workforce
- Provide comprehensive, accessible, flexible ITS learning for the transportation industry
- Focus on current and future transportation professionals—developing their knowledge, skills, and abilities while furthering career paths

PROVIDING TECHNICAL ASSISTANCE TO PREPARE THE INFRASTRUCTURE

- Resources include guidelines, white papers, and practitioner tools
- Assists in planning for future investments and deployment of V2I systems
- Does not impose any new requirements on local governments
- Work will be harmonized with related efforts by other USDOT modal agencies
- Subsequent updates to resources will also incorporate ITS research findings

OFFERING FREE RESOURCES TO ASSIST IN DEPLOYMENT

- Research Data Exchange
- Connected Vehicle Test Bed
- Professional Capacity Building ITS Training
- Connected Vehicle Test Beds
- Connected Vehicle Basics Microsite
- Research Fact Sheets
- National Transportation Library
- Connected Vehicle Help Desk
- Connected Vehicle Pilots

Free Connected Vehicle Resources

from the U.S. Department of Transportation (USDOT)

Connected Vehicle Basics
Find out what you need to know about connected vehicles
www.its.dot.gov/cv_basics/index.htm

Connected Vehicle e-Primer
Take an online class on connected vehicles
www.pcb.its.dot.gov/eprimer/module13.aspx

Connected Vehicle Pilots
See how three very different communities are deploying connected vehicle technology
www.its.dot.gov/pilots/

Smart Cities
Learn about the USDOT's Smart City Challenge
www.transportation.gov/smartcity/

Research Data Exchange
Get data from connected vehicle and other intelligent transportation system (ITS) deployments
www.its-rde.net/

Open Source Data Applications Portal
Collaborate with others or download connected vehicle or other ITS-related applications
www.itsforge.net/about

Connected Vehicle Help Desk
Get technical assistance with connected vehicle devices and applications
cvcs.samanage.com/login

Vehicle-to-Infrastructure Guidance
Learn how your community can prepare for connected vehicles (coming soon)
www.its.dot.gov/V2I

Connected Vehicle Reference Implementation Architecture
Learn about the standards and systems requirements that allow connected vehicles to operate nationwide
www.iteris.com/cvria/

Professional Capacity Building
Take advantage of webinars and blended and classroom training
www.pcb.its.dot.gov/courses.aspx

Fact Sheets
Read more detailed descriptions of the USDOT's connected vehicle research programs
www.its.dot.gov/its_program/its_factsheets.htm

National Transportation Library
Review thousands of free research reports on a searchable database
ntl.bts.gov/

Affiliated Test Beds
Join a national organization that promotes collaboration among connected vehicle device makers, operators, installations, and application developers
www.its.dot.gov/testbed/testbed_affiliated.htm

U.S. Department of Transportation
www.its.dot.gov/

Stay Connected
Sign up for free email alerts from the USDOT
www.its.dot.gov/its_newsletter.htm

QUESTIONS?

STAY CONNECTED

For more information, contact…

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