

U.S. DEPARTMENT OF
ENERGY

Office of
ENERGY EFFICIENCY &
RENEWABLE ENERGY

2018 Tennessee Sustainable Transportation Forum & Expo

Knoxville, TN

September 17, 2018

Vehicle Technologies Office

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TRANSPORTATION IS FUNDAMENTAL TO **OUR WAY OF LIFE**

**3 Trillion
Vehicle Miles**



**11 Billion
Freight Tons**



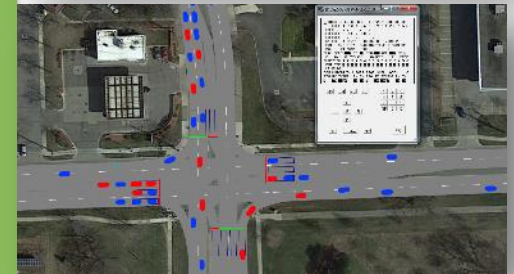
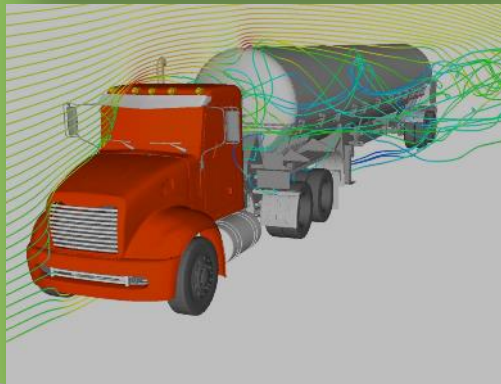
The U.S. population is growing and aging

Population density is increasing—**75% of the population** lives in urban mega-regions

Technologies and fuel choices are expanding

Transportation costs are high—second only to housing expenses

ALL LEVELS

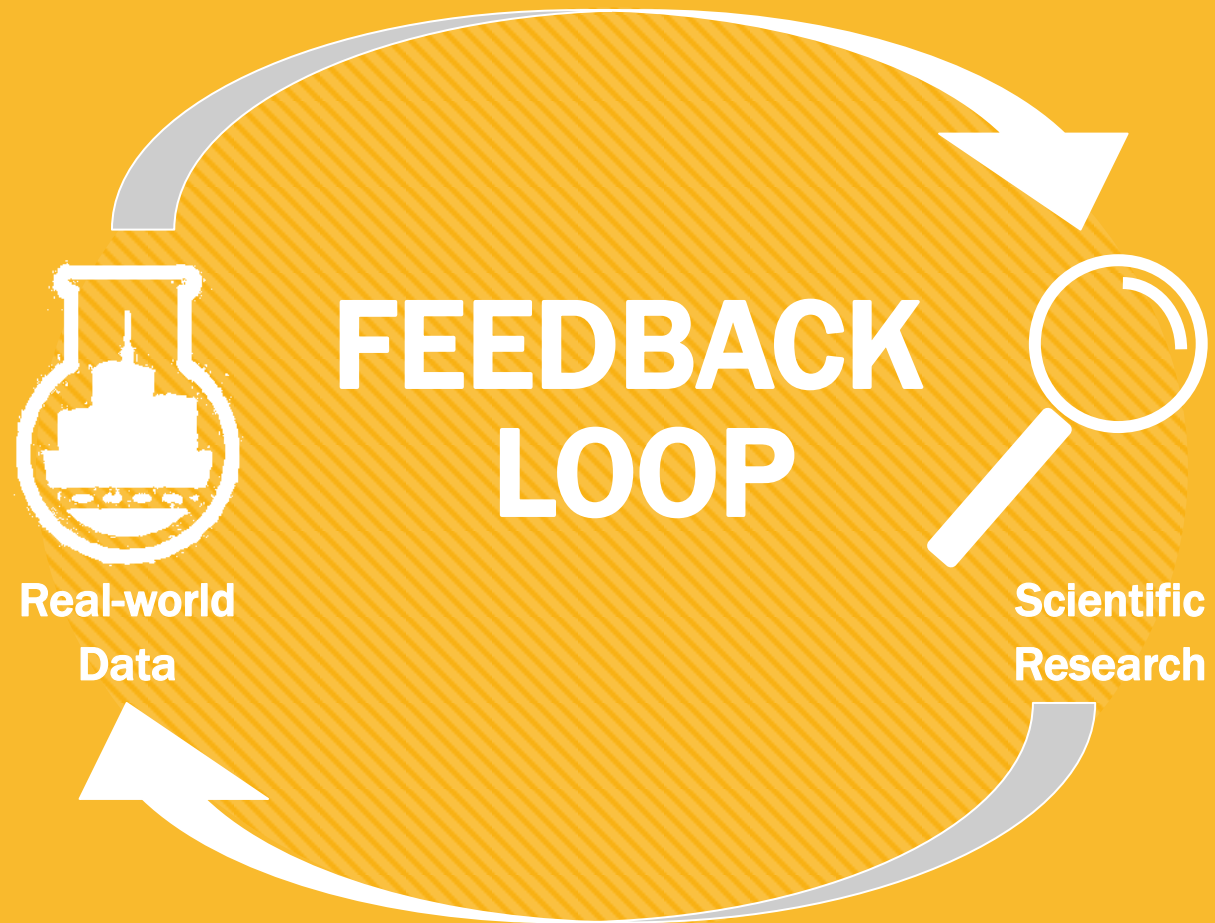


Component

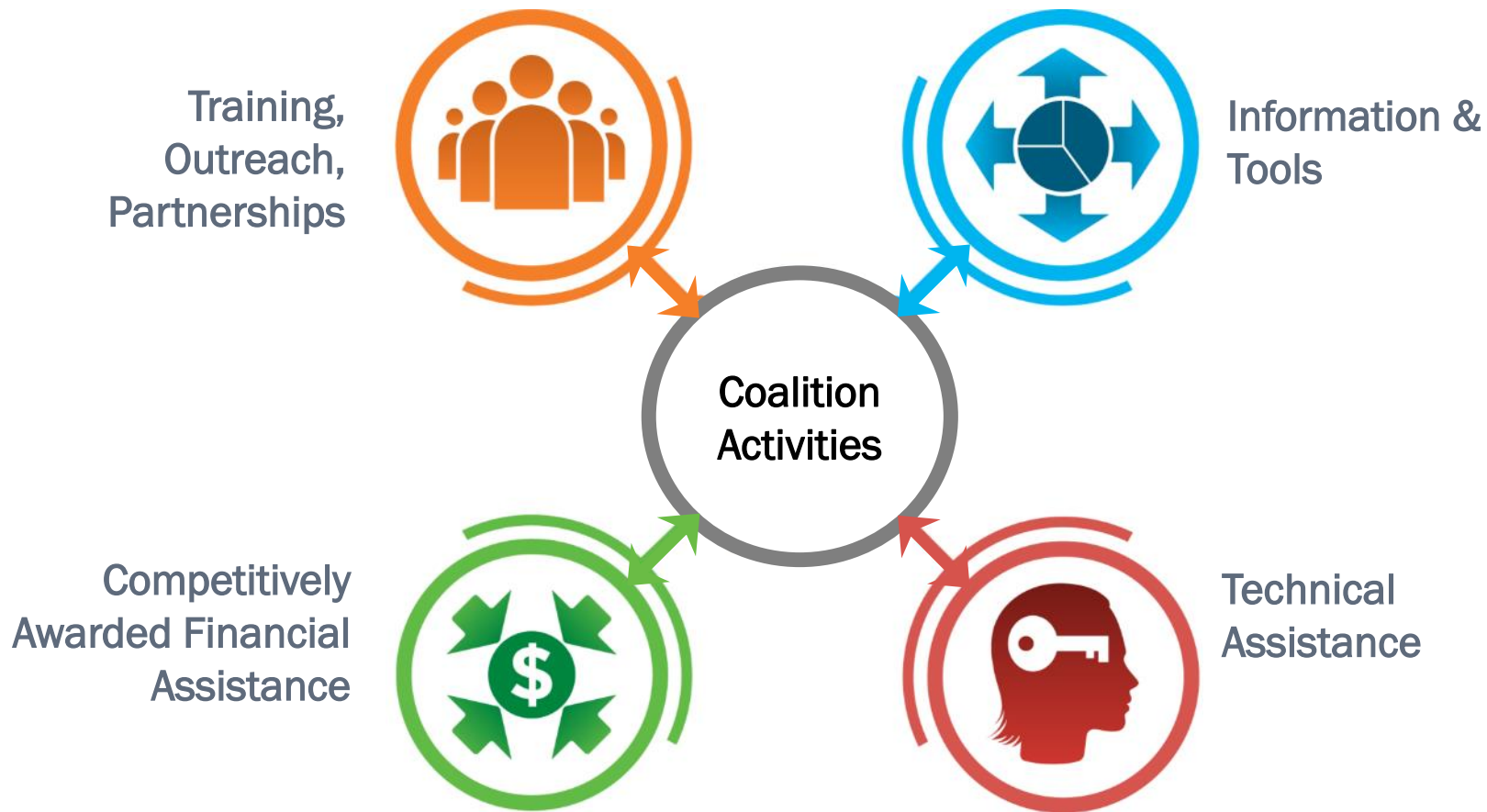
Vehicle

System

TECHNOLOGY INTEGRATION



TI CORE ACTIVITIES

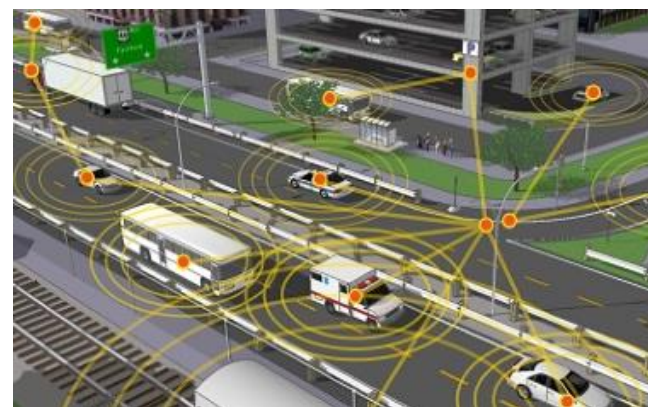


TECHNOLOGY INTEGRATION



Light-, medium-, and heavy-duty vehicles

Alternative Fuel Infrastructure



Energy Efficient
Mobility Systems and Technologies

LOCALLY-BASED PARTNERSHIPS

Clean Cities Coalitions:

- Are comprised of public and private stakeholders who share a common commitment to using alternative fuels
- Facilitate the adoption of new transportation technologies and stimulate local alternative fuel markets
- Leverage public and private funding
- Engage in education and outreach activities



INFORMATION & TOOLS

Clean Cities

Home About Coalitions Partnerships & Projects Technical Assistance News & Events

U.S. DEPARTMENT OF ENERGY Energy Efficiency & Renewable Energy

Office of Transportation & Air Quality U.S. ENVIRONMENTAL PROTECTION AGENCY

www.fueleconomy.gov
the official U.S. government source for fuel economy information

Mobile Español Site Map Links FAQ Videos

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EERE Home | Programs & Offices | Consumer Information

U.S. DEPARTMENT OF ENERGY Energy Efficiency & Renewable Energy

Alternative Fuels Data Center

FUELS & VEHICLES CONSERVE FUEL LOCATE STATIONS LAWS & INCENTIVES

Maps & Data Case Studies Publications Tools About Home

EERE > AFDC

Printable Version Share

Fuels & Vehicles >



Information by State >



Information by Fleet Application >



Maps & Data >

- U.S. Alternative Fueling Stations by Fuel Type
- Alternative Fuel Vehicles in Use
- U.S. Hybrid Electric Vehicle Sales by Model



Find Fleet Information by Application

Get detailed vehicle data, case studies, and resources.

The Information Source for Alternative Fuels and Advanced Vehicles

The Alternative Fuels Data Center (AFDC) provides information, data, and tools to help fleets and other transportation decision makers find ways to reach their energy and economic goals through the use of alternative and renewable fuels, advanced vehicles, and other fuel-saving measures.

Tools >

- Laws & Incentives
- Electricity Sources & Emissions
- Vehicle Cost Calculator
- Vehicle Search

Want to know more about hybrid and electric car options?

We can help.

Save Money



- Gas Mileage Tips
- Fuel Cost Calculator
- Find the Cheapest Gas

Quick Picks

Hybrids & Electrics



- Hybrids
- Plug-in Hybrids
- All-Electric Vehicles

Related Links

afdc.energy.gov

NATIONAL NETWORK

Nearly 100 Clean Cities coalitions with thousands of stakeholders, representing ~80% of U.S. population



cleancities.energy.gov

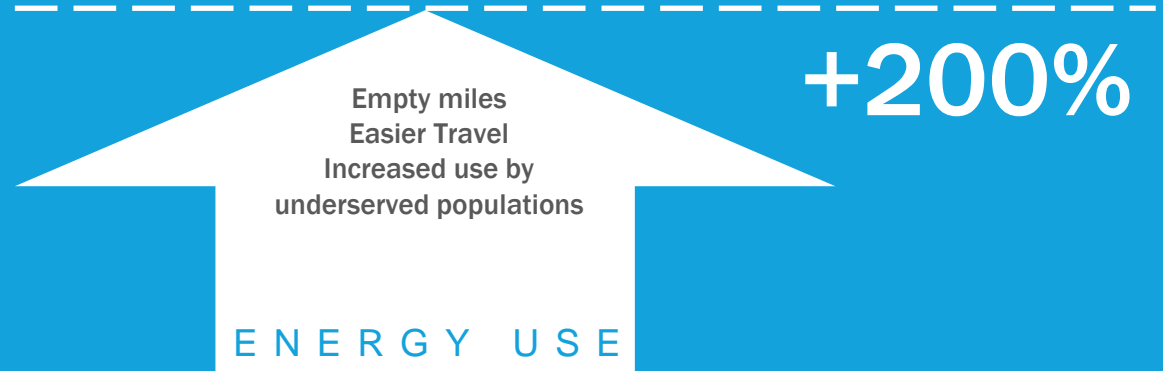
NEW CHALLENGES BRING

NEW OPPORTUNITIES



IN THE ENERGY EFFICIENT MOBILITY SYSTEMS PROGRAM

EEMS PROGRAM



**Shared
Mobility**

**Mobility
On Demand**

**Goods
On Demand**

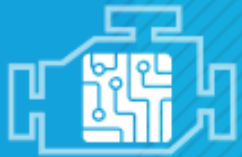
**Connected &
Automated Vehicles**

**Emerging Fuels
& Powertrains**

**New Modes
of Transport**



ACHIEVING GOALS



**Advanced R&D
Projects**



Living Labs

**THROUGH FIVE EEMS
ACTIVITY AREAS**



**Smart Mobility
Lab Consortium**



**HPC4Mobility &
Big Transportation Data Analytics**



**Core Evaluation &
Simulation Tools**

**Advanced
Fueling
Infrastructure**



**Connected &
Automated
Vehicles**



Urban Science



SMART MOBILITY LAB

CONSORTIUM

**7 labs, 30+ projects, 65 researchers,
\$34M* over 3 years.**

**Mobility Decision
Science**



**Multi-Modal
Transport**

*Based on anticipated funding

LIVING LABS

3 Projects, \$4.9M in FY2017

15 Projects, \$27M in FY2018



ELECTRIC SHARED MOBILITY

Seattle, Portland, NYC, Denver
Uber, GM's Maven, BMW's ReachNow



ELECTRIC LAST MILE

Austin
Pecan Street, CapMetro



ENERGY EFFICIENT FREIGHT LOGISTICS

NYC-Albany Corridor
Rensselaer Polytechnic Institute, freight carriers & receivers, urban supply chain

High Performance Computing
for Transportation Hubs



First/Last Mile for
People/Goods Movement



System-Level Data for
Energy Efficient Mobility



Fuel Efficient Platooning



Multi-Unit Dwelling & Curbside
Residential Charging Innovation



Open Topic





LONG-STANDING
INDUSTRY / GOVERNMENT RELATIONSHIP
resulting in TECHNICAL ADVANCEMENT in COMMERCIAL
TRUCKS

INDUSTRY



MERITOR.

PACCAR Inc

DENSO

NAVISTAR®



GOVERNMENT





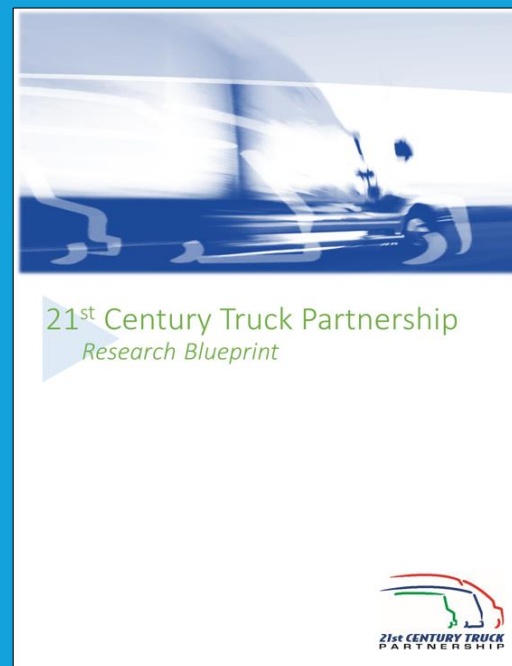
NEW technical **focus areas**

NEW technical **targets**

NEW operational **structure**

NEW high level **goals**

COMING SOON





IC ENGINE POWERTRAINS



ELECTRIFIED POWERTRAINS



FREIGHT OPERATIONAL EFFICIENCY



SAFETY

OUR VISION



ACHIEVING

MOBILITY ENERGY PRODUCTIVITY

more choices

more affordable

when & where it is needed



THANK YOU

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[Energy.gov/eere/vehicles](https://energy.gov/eere/vehicles)