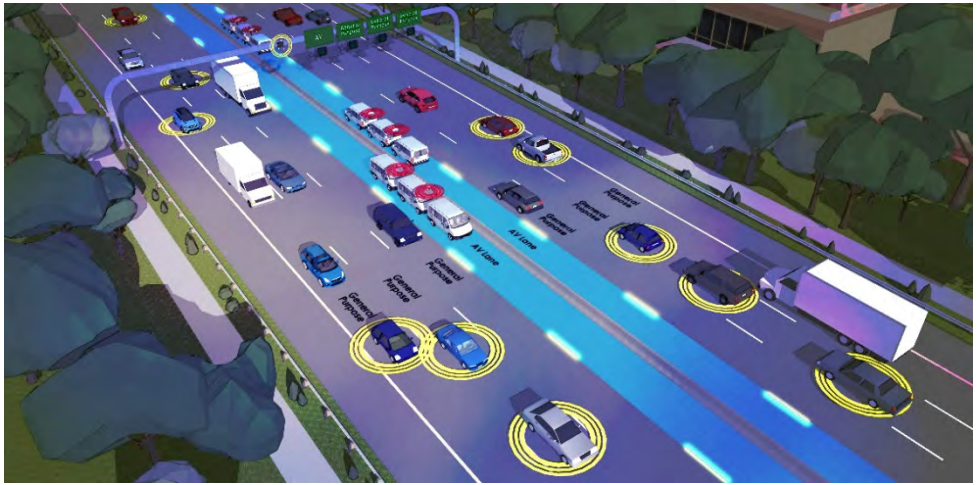
Activity #2

Agenda:

- 01 Overview
- 02 Progress To Date
- 03 2020 Work Plan
- 04 Criteria Scorecards

Overview

- Develop project selection criteria and discuss potential funding approaches to enable the selection of near-term pilot deployment proposals and projects.



Action Items

- Evaluate and build upon the Pilot Evaluation scorecard criteria developed by others
- Evaluate grant criteria from existing Federal, State and WSDOT grant programs
- Incorporate recommendations from Activity #1
- Assess the feasibility of the new criteria against deployment scenario priorities identified by the subcommittee

Progress

- Compiled a "comprehensive" list of funding sources.
  - » WSDOT – 24 grant programs
  - » Federal – 11 grant programs
  - » Department of Energy – 1 program
  - » Department of Commerce – 1 program
- Individual Funding Breakdown
  - » **ATCMTD Grant**

Funding Source Data
Source
Funding Mechanism (Name)
Short Description
Criteria
Awardee Type
Funding Match
Match %
Max Award
Criteria

Advanced Transportation and Congestion Management Technologies Deployment Grant - Fact Sheets

The program authorizes $60 M for 2020
The funding size stays the same as 2016

Eligible Applicants

- State or local government or political subdivision thereof,
- Transit agency,
- Metropolitan planning organization (MPO) representing a population of more than 200,000,
- Multijurisdictional group made up of the above eligible applicants, with a signed agreement to implement the initiative across jurisdictional boundaries, and
- Consortium of research or academic institutions. [23 U.S.C. 503(c)(4)(N)]

Focus Areas for ATCMTD

- Multimodal Integrated Corridor Management (ICM)
- Installation of connected vehicle technologies at intersections, pedestrian crossing locations, and other conflict areas
- Unified fare collection and payment systems across transportation modes and jurisdictions,
- Freight Community System
- Technologies to support connected communities
- Infrastructure Maintenance, Monitoring, and Condition Assessment
- Rural technology deployments

20% x 60= $12M

Federal share **UP** to **50**% of the cost of the project. The secretary may **NOT** award **more than 20**% of program funding for a fiscal year to a single grant recipient

NOFO Posted Date: Jun 6, 2019
Last Closing Date for Applications: Aug 18, 2019

ATCMTD FY 2016 TOP 5 Grant Awards

WASHINGTON STATE AUTONOMOUS VEHICLE WORK GROUP

City of San Francisco
Advanced Transportation and Congestion Management Technologies Deployment Initiative
($10,990,760 awarded)

- Improve intersections safer and more accessible for pedestrians and cyclists by deploying smart connected signals
- Encourage ridesharing and carpooling through the creation of dynamic pickup curbs and a regional carpool lane system.

Denver Smart City Program
($6,000,007 awarded)

- Connected Traffic Management Center (TMC) and Connected Fleets
- Travel Time Reliability as a City Service for Connected Freight
- Safer Pedestrian Crossings for Connected Citizens

A Connected Region: Moving Technological Innovations Forwards in the NITTEC Region
($7,813,256 awarded)

- Improve border crossing performance and travel time and commercial vehicle operations and safety
- Expand Smart Mobility to major highways in the region to improve incident management and promote operational integration

Smart PGH
($10,899,318 awarded)

- Deploy "Smart Spine" corridors in Pittsburgh that layer environmental, communications, energy, and transportation infrastructure technologies to improve connections
- Real-time adaptive signal controllers that will provide optimized transit operations by completing LED smart streetlight converstaion

ConnectSmart: Connecting TSMO and Active Demand Management
($8,939,062 awarded)

- Deploy an advanced technology platform that integrates transportation operations and active demand management with a multi-modal approach
- Integrate various mobility technologies for carpooling, ridesharing and shared electric bicycles to provide reliable multi-modal travel time information.

Source: https://www.grants.gov/web/grants/view-opportunity.html?oppId=316761
https://ops.fhwa.dot.gov/fastact/atcmtd/fy16awards/index.htm

ATCMTD FY 2017 TOP 5 Grant Awards

WASHINGTON STATE AUTONOMOUS VEHICLE WORK GROUP

Global Opportunities at the Port of Oakland Freight Intelligent Transportation System
($9,720,000 awarded)

- Deploy the nation's first integration of Freight Community System and advanced ITS technology that will include a new port-specific TMC, traffic sensors, advanced traveler information, traffic messaging, trucking information for mobile apps, rail grade warning and terminal queue information.

Loop 101 Mobility Project
($6,000,000 awarded)

- Improve safety and existing arterial capacity in the Loop 101 corridor by deploying technology and systems to support ICM, public transportation, SMARTDriveSM and other connected traffic management and other real-time information technologies.

The Texas Connected Freight Corridors Project
($6,090,221 awarded)

- Deploy connected vehicle technologies in over 1,000 trucks and agency fleet vehicles that will be able to transmit data and receive warnings from 12 CV applications..

Connecting Cleveland Project
($5,850,000 awarded)

- Improve communications infrastructure, enhance rider and passenger safety and reduce rider travel time
- Enhance the overall efficiency of the transportation system while contributing to community revitalization.

Connecting the East Orlando Communities
($11,946,279 awarded)

- Advance numerous ITS technologies as part of PedSafe, GreenWay, SmartCommunity and SunStore.

ATCMTD FY 2018 TOP 5 Grant Awards

WASHINGTON STATE AUTONOMOUS VEHICLE WORK GROUP

Oregon Smart Mobility Network
($12,000,000 awarded)

- Use smart technologies statewide in both urban and rural regions to ease the impacts of rapid growth, guide infrastructure investments, and promote optimal mobility for all modes.

Bay Area Mobility-On-Demand
($8,000,000 awarded)

- Enhance Bay Area MOD applications to reduce traffic congestion on the I-680 Corridor and surrounding communities.

I-10 Corridor Coalition Truck Parking Avaliability System (I-10 Corridor Coalition TPAS)
($6,850,000 awarded)

- Implement a truck parking availability detection and information dissemination system at 37 public truck parking locations along I-10 from California to Texas.

Artificial Intelligence Enhanced Integrated Transportation Management System (AIITMS) Deployment Program
($4,996,949 awarded)

- AIITMS is a multi-modal AI transportation management and control system that collects and analyzes high-resolution data collected from freeways, traffic signals, and connected and autonomous vehicles.

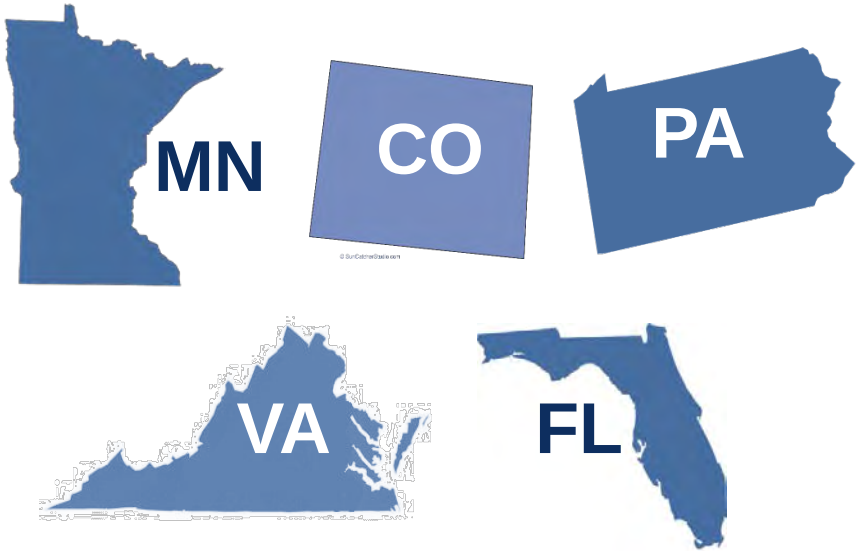
Advanced Connected Transportation Infrastructure & Operations Network (ACTION)
($8,034,000 awarded)

- Deploy advanced technologies – including camera, communications, sensor, and data-collection technologies — on roadways in and around Tuscaloosa.

Source: https://ops.fhwa.dot.gov/fastact/atcmtd/2017/awards/index.htm
https://ops.fhwa.dot.gov/fastact/atcmtd/2018/awards/index.htm

PROGRESS

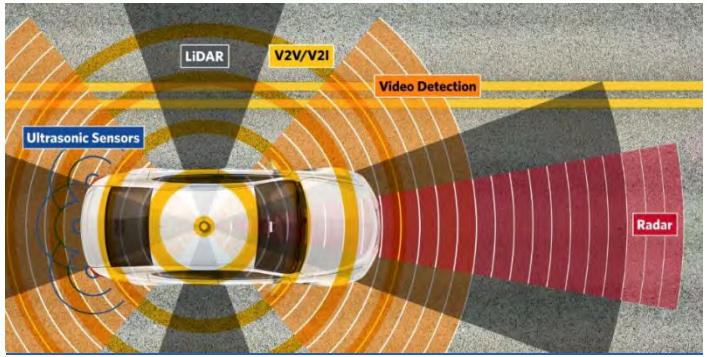
REVIEWED INVESTMENT GUIDELINES FROM THESE 5 STATES



21 INVESTMENT CATEGORIES INVENTORIED

1. Accelerate the CAV Program
2. Safety
3. Mobility
4. Efficiency and Reliability
5. Feasibility
6. Funds
7. Benefit/Cost
8. Data and Security
9. Operations and Maintenance
10. Project Evaluation
11. Reduced Infrastructure Investments
12. Enhanced Traveler Information
13. Capital Investments
14. Research and Development
15. Partnerships
16. Regulation and Policy Strategic
17. Staffing & Prepared Workforce
18. Communications
19. Long Range Planning
20. Economic Competitiveness
21. Emissions

2020 Work Plan



Action	Deliverable
1. Continue efforts to update master grant funding tracker and communicate grant opportunities	periodically
2. Participate in Activity 1 Workshop	March 2020
3. Gap Analysis of Activity 1 Strategies' and Actions' Eligibility Compared to Criteria of Existing Grant Sources	April-May 2020
4. Identify Impacts from introducing CAT Strategies to Existing Grant Programs	May 2020
5. Identify gaps in eligibility for funding, develop recommendations for funding approaches	July 2020

Scorecard

- Adding Performance Metrics to identified Goals

What are you working towards?	What are you measuring?	What does success look like?		How does it compare?
Goal area	**Performance metric**	**Intended directionality**	**Target for this pilot**	**Baseline (avg. for jurisdiction)**
Safety	**Number of serious incidents (deaths or serious injuries)** Total and per 1000 service miles	Zero		
	Number of minor incidents Total and per 1000 service miles	Low		
	Conflicts between vehicles and other road users Observed rate per 100 loads/unloads	Low		
	Perceived safety/security Average user rating out of 5	High		
Mobility	**Reliability of service** Percentage of trips completed within 5 minutes of time estimate	High		
	Trip request fulfillment time [Minutes]	Low		
	Average travel time [Minutes]	Low		
	First/last-mile connectivity Percentage of trips provided to/from transit stations	High		
	Average distance to pick-up/drop-off point [Feet]	Moderately low		

Seattle Department of Transportation

Score	Quantitative Performance	Qualitative Performance	Focus Population Performance
🟢	At (±1%) or beyond target	Advancing	Same as general population (±5%)
🟡	1-10% short of target	Little or no progress	
🔴	>10% short of target	Negative impact	>5% worse than general population
⚪	Not applicable	Not applicable	
✕	No data, or data not reported due to insufficient sample size to ensure respondent privacy		

Scorecard

- Develop scoring criteria and scale from 1 to 10

Categories	Criteria	Self-Score
Accelerate the CAV Program	Does this project accelerate the deployment and implementation of CAV technologies in Florida?	
Safety	Does this project directly reduce or have the potential to reduce fatal, serious injury and/or secondary crashes?	
Mobility	From a mobility perspective, does this project directly benefit all modes including pedestrians, bicyclists, disabled, economically disadvantaged, and aging road users?	
Efficiency and Reliability	Does this project directly benefit (or have potential to impact) efficiency and/or reliability for all travelers, freight, transit riders, aging road users, pedestrians, and bicyclists?	
Feasibility	Is this project implementable (technology-ready), scalable, and portable for statewide deployment?	
	Do proposed technologies comply with or have the potential to comply with relevant state and federal safety law?	
	Is the proposed project interoperable and/or does it have the potential to become interoperable with the existing or programmed CAV Projects?	
Funds	Does this project leverage federal, local, and/or private funds? Are there any private organization and/or local agency partners? If yes, what are their match types and roles? Is there an agreement or Memorandum of Understanding (MOU) in place?	
Benefit/Cost	Does this project offer benefits with a high B/C and a good return on investment?	
Data and Security	Does this project collect, disseminate, and use real-time traffic, transit, parking, and other transportation information to improve safety and mobility, and reduce congestion? Explain how the project will safeguard data privacy and deploy a cybersecurity platform.	
Operations and Maintenance	Does this project address staffing, funding, and procedures for operations, maintenance, and replacement of CAV infrastructure, technologies, and applications?	
Project Evaluation	Does this project have pre-defined performance measures? What and how are these outcomes measured?	
	Will there be a before and after analysis performed, and lessons learned documented? If yes, how will this be documented and shared?	
	Is there a systems validation and verification process in place? Explain how this will be performed.	
	Total Score	

FDOT TSM&O
Transportation Systems Management & Operations

Activity 2 Discussion