CONNECTED VEHICLE PILOT DEPLOYMENT PROGRAM

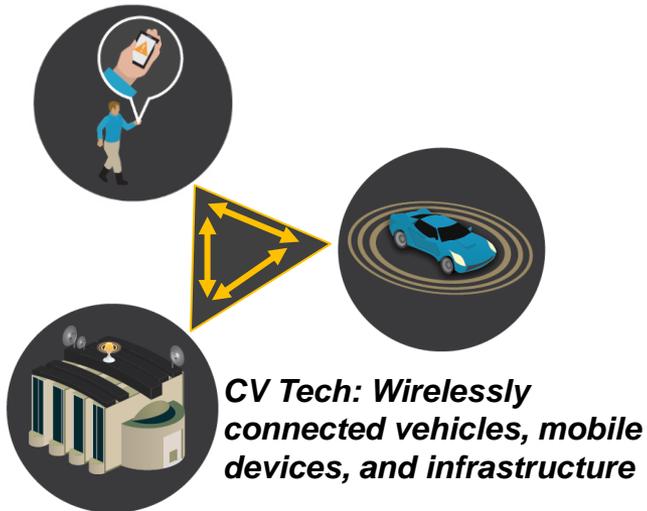**ITS Joint Program Office**

PROGRAM GOALS

| Spur Early CV Tech Deployment | ➕ | Measure Deployment Benefits | ➕ | Resolve Deployment Issues |

CV Tech: Wirelessly connected vehicles, mobile devices, and infrastructure

Safety, Mobility, and Environment

Technical, Institutional, Financial

LIMIT 35

PILOT DEPLOYMENT PROCESS

- **Pilot Deployment Concept Development Process**

  - Identify Local Needs

  - Set Performance Goals

  - Select CV Applications That Work Together Meet Those Goals

- **USDOT Sample Pilot Concepts from Hypothetical Locations**

  - Hypothetical, but realistic examples of localities applying the pilot deployment concept development process

SAMPLE DEPLOYMENT CONCEPT – Downtown Sunnyside
~ Improving Congestion in an Urban Arterial Network ~
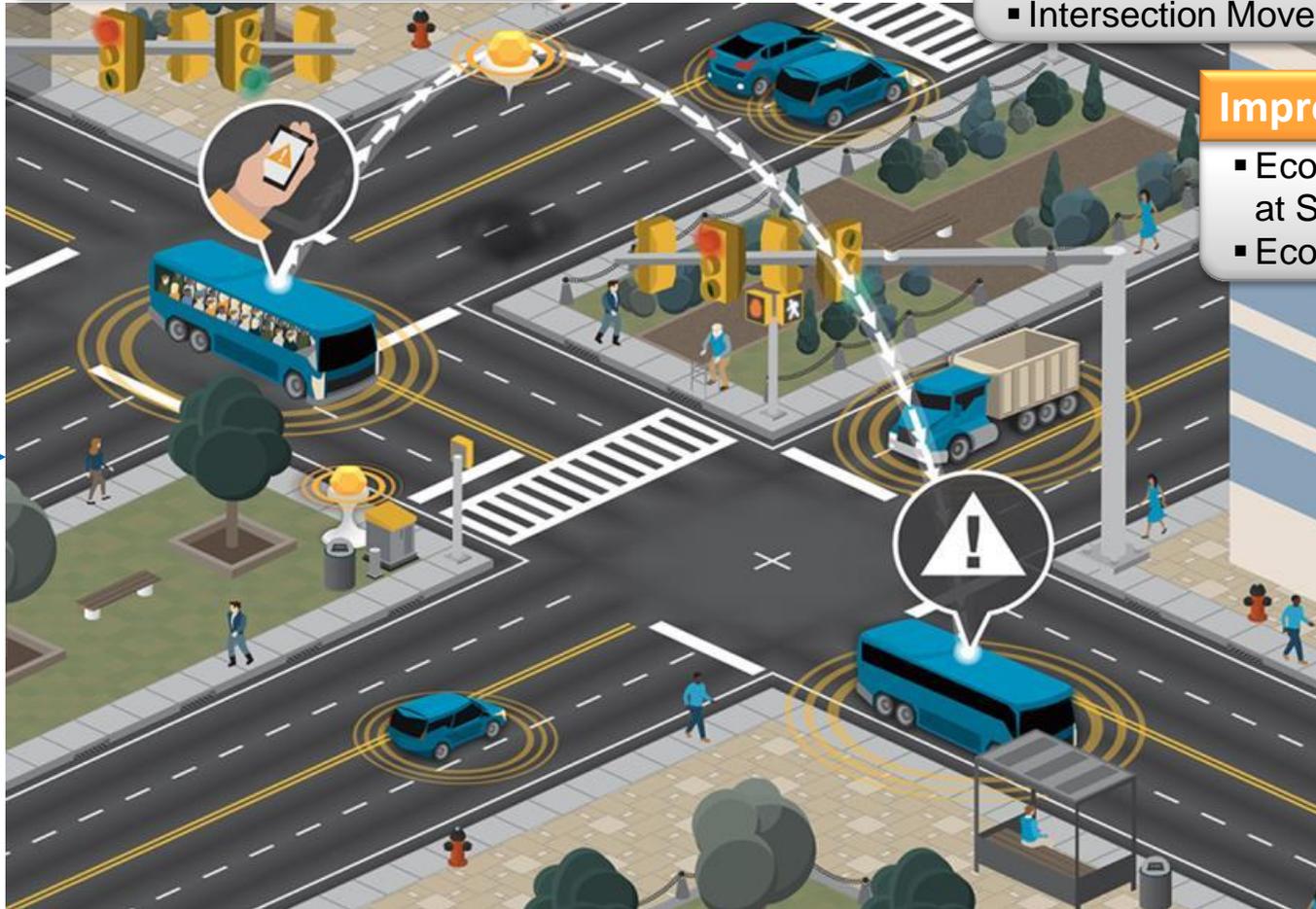
Improve Transit Reliability
- Connection Protection
- Transit Signal Priority

Improve Pedestrian Safety
- Mobile Accessible Pedestrian Signal System
- Pedestrian in Signalized Crosswalk Warning
- Intersection Movement Assist

Improve Air Quality
- Eco-Approach and Departure at Signalized Intersections
- Eco-Traffic Signal Timing

Synergies among applications increase benefits and reduce costs

SAMPLE DEPLOYMENT CONCEPT – Halleck Expressway
~ Improving Travel Time Reliability on an Urban Expressway~

Reduce Incident Delay

- Incident Scene Pre-Arrival Staging Guidance for Emergency Responders
- Incident Scene Work Zone Alerts for Drivers and Workers

Improve Bottleneck Throughput

- Speed Harmonization and Queue Warning
- Emergency Electronic Brake Lights and Forward Collision Warning

Manage Diversions Better

- EnableATIS
- Intelligent Signal Control

Synergies among applications increase benefits and reduce costs

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SAMPLE DEPLOYMENT CONCEPTS – Greypool County
~ Improving Safety and Mobility in a Rural Area ~

Increase Accessibility

- Dynamic Transit Operations

Improve Safety

- Red Light Violation Warning
- Stop Sign Gap Assist
- Left Turn Assist

Informing Drivers During Bad Weather

- Weather Response Traffic Information

Synergies among applications increase benefits and reduce costs

Sample Deployment Concept – I-876 Corridor
~ Improving Freight Movement in an Inter-State Corridor ~

Improve Freight Productivity

- Freight Advanced Traveler Information System
- Drayage Optimization
- Freight Signal Priority

Improve Truck Safety

- Curve Speed Warning
- Do Not Pass Warning/Lane Change Warning

Synergies among applications increase benefits and reduce costs

CV PILOTS DEPLOYMENT SCHEDULE AND RESOURCES

- Proposed CV Pilots Deployment Schedule

Schedule Item	Date
Request for Information (RFI) Issued	March 12, 2014
CV Pilot Program Stakeholder Workshop	April 30, 2014
Regional Pre-Deployment Workshop/Webinar Series	Summer-Fall 2014
Solicitation for Wave 1 Pilot Deployment Concepts	Early 2015
Wave 1 Pilot Deployments Award(s)	September 2015
Solicitation for Wave 2 Pilot Deployment Concepts	Early 2017
Wave 2 Pilot Deployments Award(s)	September 2017
Pilot Deployments Complete	September 2020

- Resources
  - ITS JPO Website: http://www.its.dot.gov/
  - CV Pilots Program Website: http://www.its.dot.gov/pilots

Connected Vehicle
Pilot Deployment Program

Wyoming

New York City

Tampa, Florida

Three Pilots Awarded Phase 1 Contracts

Connected Vehicle Pilot Deployment (up to 50 months)

PHASE 1 (up to 12 months)		PHASE 2 (up to 20 months)		PHASE 3 (minimum 18 months)	Routine Operations (ongoing)
Concept Dev.		Design/Deploy/Test		Maintain/Operate Pilot	Post-Pilot Operations
	Progress Gate		*Progress Gate*		*Transition*

In Progress   **Follow-On Cooperative Agreement**
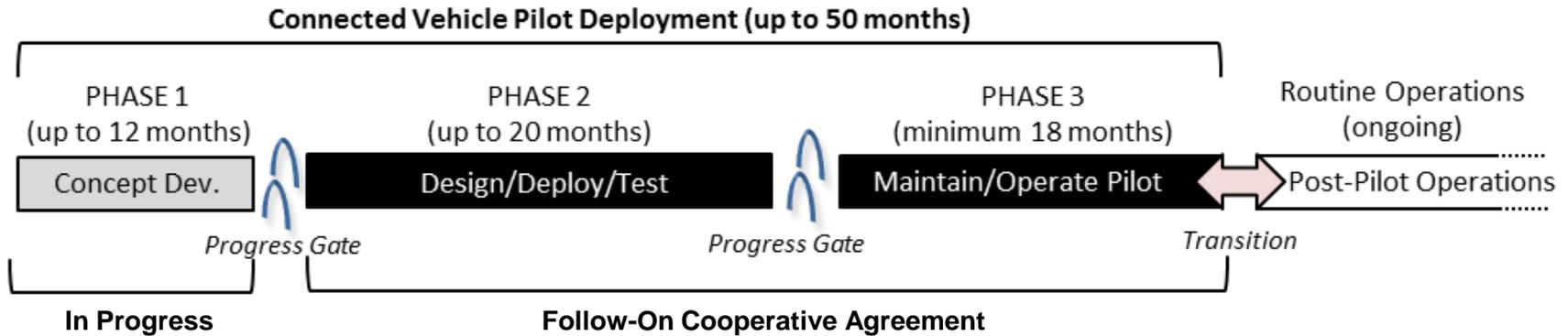
Connected Vehicle Pilot Locations
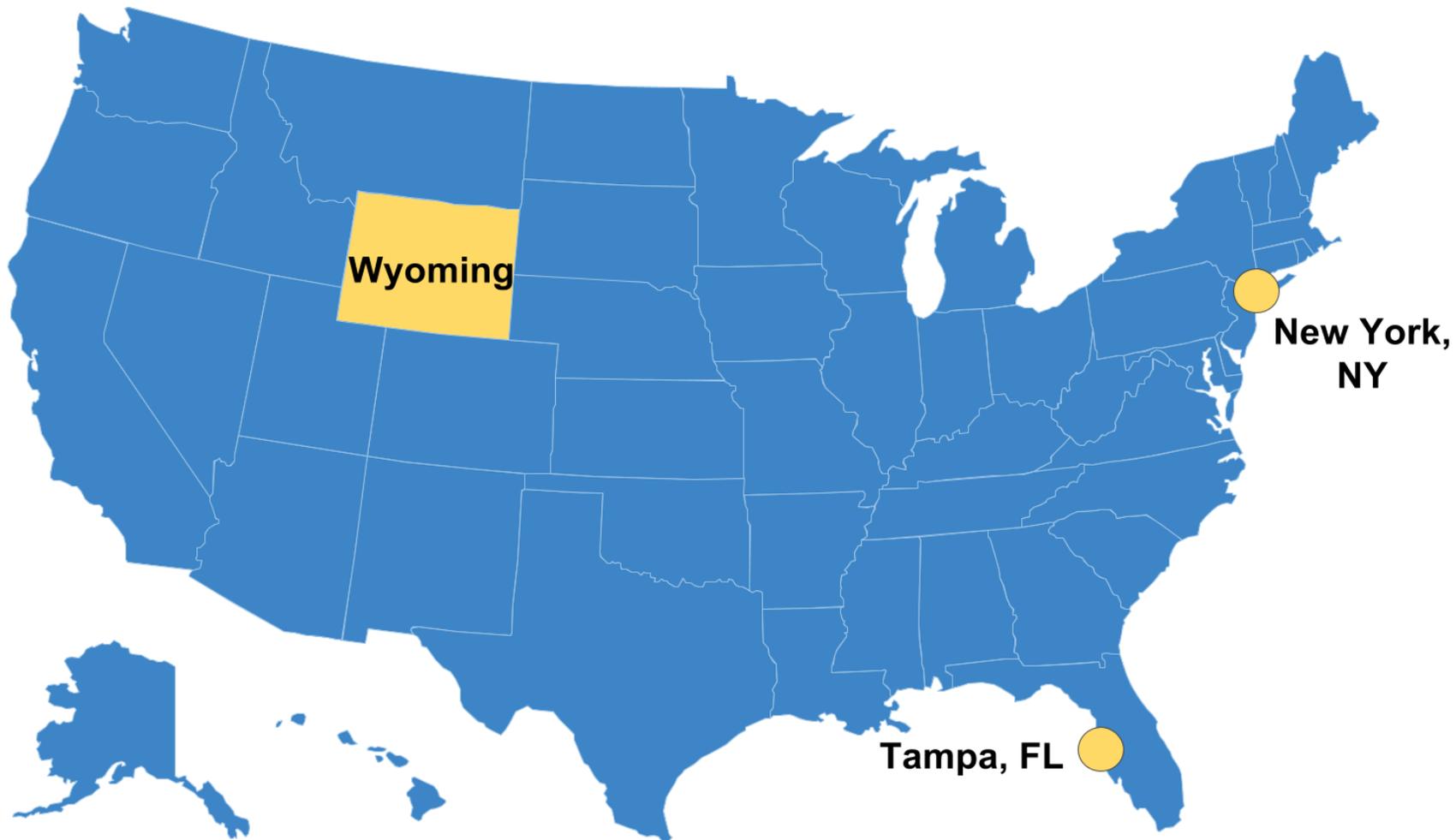
Tampa, Florida

- Tampa Hillsborough Expressway Authority, City of Tampa,

- Hillsborough Regional Transit Authority, Florida DOT

- What
  - Expressway and downtown streets
  - Peak-hour congestion mitigation
  - Pedestrian/bicycle safety
  - Emissions reduction

New York City

- New York City DOT

- What
  - 10,000 city-owned and commercial vehicles
  - Speed harmonization, intersection safety, pedestrian safety, work zone safety
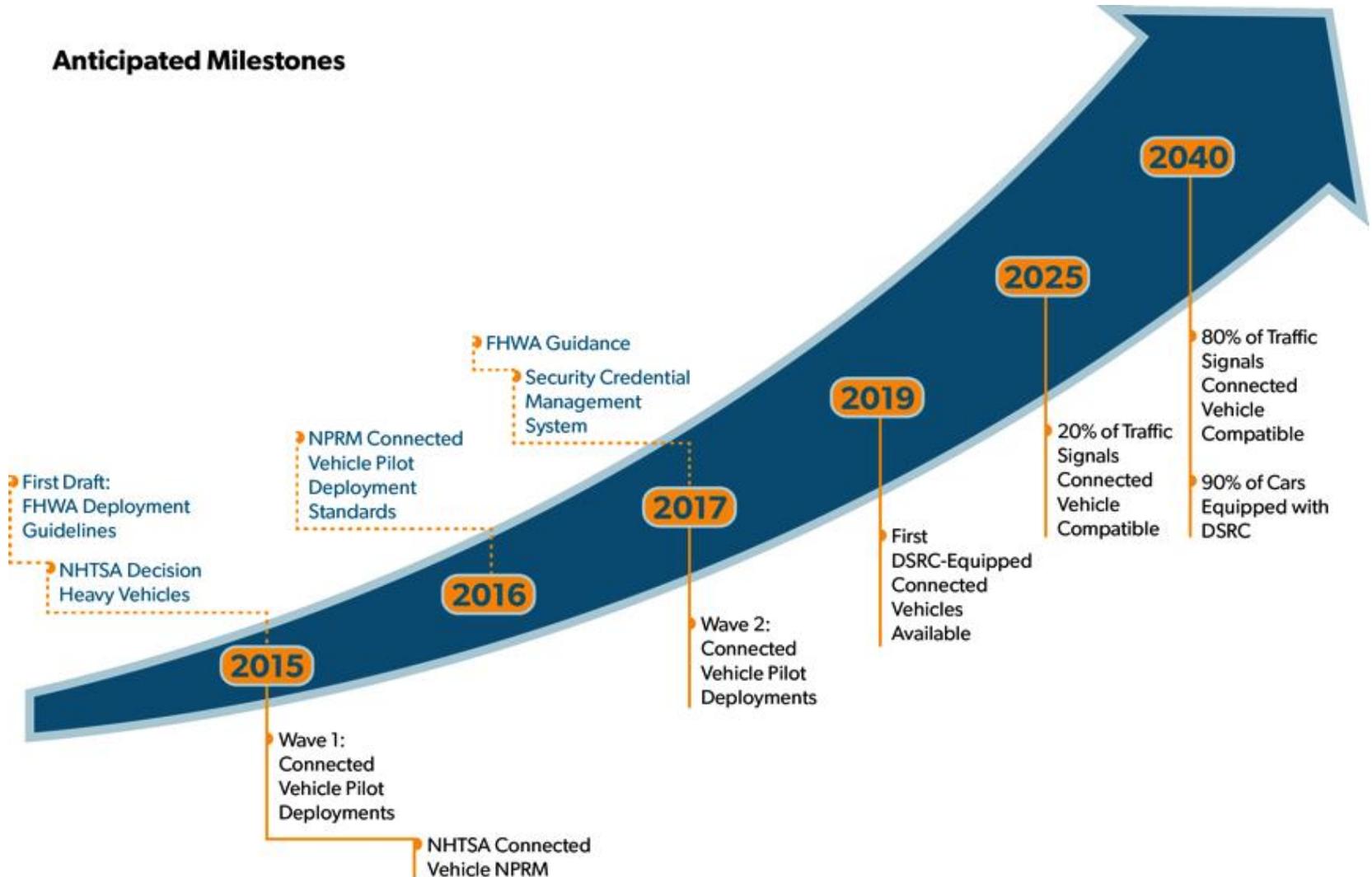
Wyoming

- Wyoming DOT, ICF International

- What
  - Commercial freight movement on I-80 corridor
  - Adverse weather incident reduction through advisories, spot warnings, and road treatment
  - Speed harmonization; traveler information

Connected Vehicle Timeline

Anticipated Milestones

2015
- First Draft: FHWA Deployment Guidelines
- NHTSA Decision Heavy Vehicles
- Wave 1: Connected Vehicle Pilot Deployments
- NHTSA Connected Vehicle NPRM

2016
- NPRM Connected Vehicle Pilot Deployment Standards

2017
- FHWA Guidance
- Security Credential Management System
- Wave 2: Connected Vehicle Pilot Deployments

2019
- First DSRC-Equipped Connected Vehicles Available

2025
- 20% of Traffic Signals Connected Vehicle Compatible

2040
- 80% of Traffic Signals Connected Vehicle Compatible
- 90% of Cars Equipped with DSRC

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