PROGRAM GOALS

Spur Early CV Tech Deployment

Measure Deployment Benefits

Resolve Deployment Issues

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

LIMIT 35 Safety, Mobility, and Environment

Technical, Institutional, Financial
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
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 – District 13 Operations
~ Improving the Efficiency of Road Maintenance ~

- Improve Snow Removal
  - Enhanced Maintenance Decision Support System

- Improve Management of Work Zones
  - Work Zone Traveler Information

- Improve Situational Awareness
  - Probe-based Pavement Maintenance

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

<table>
<thead>
<tr>
<th>Schedule Item</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Request for Information (RFI) Issued</td>
<td>March 12, 2014</td>
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<tr>
<td>CV Pilot Program Stakeholder Workshop</td>
<td>April 30, 2014</td>
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<tr>
<td>Regional Pre-Deployment Workshop/Webinar Series</td>
<td>Summer-Fall 2014</td>
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<tr>
<td>Solicitation for Wave 1 Pilot Deployment Concepts</td>
<td>Early 2015</td>
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<td>Wave 1 Pilot Deployments Award(s)</td>
<td>September 2015</td>
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<tr>
<td>Solicitation for Wave 2 Pilot Deployment Concepts</td>
<td>Early 2017</td>
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<tr>
<td>Wave 2 Pilot Deployments Award(s)</td>
<td>September 2017</td>
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<tr>
<td>Pilot Deployments Complete</td>
<td>September 2020</td>
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</tbody>
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### Resources
- ITS JPO Website: [http://www.its.dot.gov/](http://www.its.dot.gov/)
- CV Pilots Program Website: [http://www.its.dot.gov/pilots](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)

Concept Dev.

PHASE 2
(up to 20 months)

Design/Deploy/Test

Progress Gate

PHASE 3
(minimum 18 months)

Maintain/Operate Pilot

Progress Gate

Routine Operations
(ongoing)

Transition

Post-Pilot Operations

Follow-On Cooperative Agreement

In Progress
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: Wave 1: Connected Vehicle Pilot Deployments
- 2016: NHTSA Decision Heavy Vehicles
- 2017: NPRM Connected Vehicle Pilot Deployment Standards
- 2019: Wave 2: Connected Vehicle Pilot Deployments
- 2025: First DSRC-Equipped Connected Vehicles Available
- 2040: 80% of Traffic Signals Connected Vehicle Compatible

First Draft: FHWA Deployment Guidelines

FHWA Guidance Security Credential Management System

NHTSA Connected Vehicle NPRM
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