



*UNITED STATES*  
**DEPARTMENT OF TRANSPORTATION**

***EnableATIS* Vision and Operational Concept**  
**Introductory Stakeholder Webinar**

October 12, 2011

# Agenda

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- Welcome & Context
- Presentation Team Introductions
- Mobility Program Background
- Introduce *EnableATIS*
- Setting the Stage for the Stakeholder Workshop
  - Background
  - Draft *EnableATIS* Vision
  - Logistics
- Wrap-up



# Context for this Webinar

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- ITS Program advancing through connected vehicle activities & initiatives
- Important to gain insight & input from the community
- Next phases for Dynamic Mobility Application efforts
- *EnableATIS* is one of the high priority DMA focus areas
- Upcoming Stakeholder workshop & involvement
  - Webinar provides background & preparatory information
  - Workshop & Webcast provide more details to allow for informed & engaged discussions
  - Electronic Feedback / Follow-up form to allow for further input



# Introductions

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- USDOT Team

- Bob Rupert – Government’s Task Manager
- Karl Wunderlich – Program Support (Noblis)

- Contractor Team

- Erin Flanigan – Cambridge Systematics
- Lisa Burgess – Kimley-Horn
- Alan Toppen – Kimley-Horn
- Mike Harris – Kimley-Horn

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# ITS Research = Multimodal and Connected

To Improve Safety, Mobility  
and Environment

Research of technologies  
and applications that use  
wireless  
communications to  
provide connectivity:

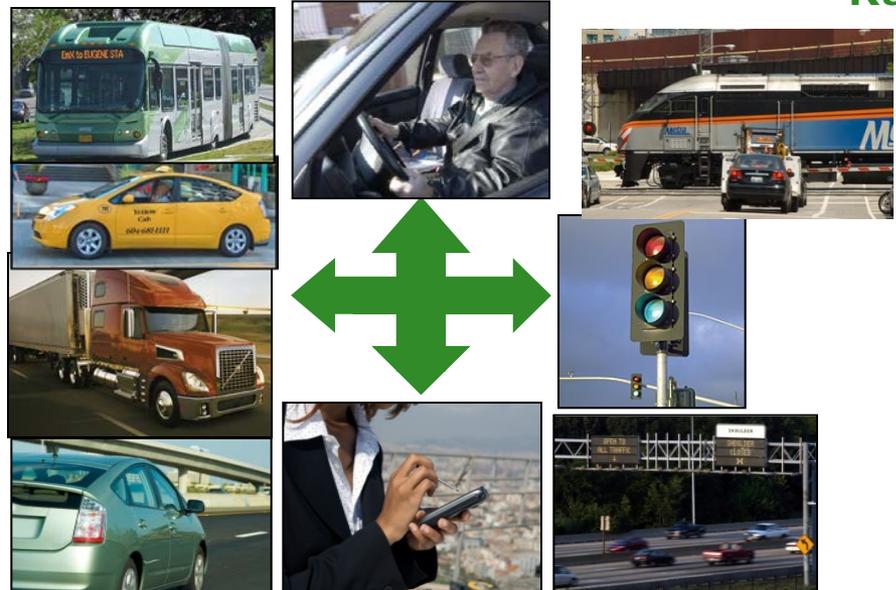
- Among vehicles of all types
- Between vehicles and roadway infrastructure
- Among vehicles, infrastructure and wireless consumer devices

FCC Allocated 5.9 GHz  
Spectrum (DSRC) for  
Transportation Safety

Vehicles  
and  
Fleets

Drivers/Operator

Rail



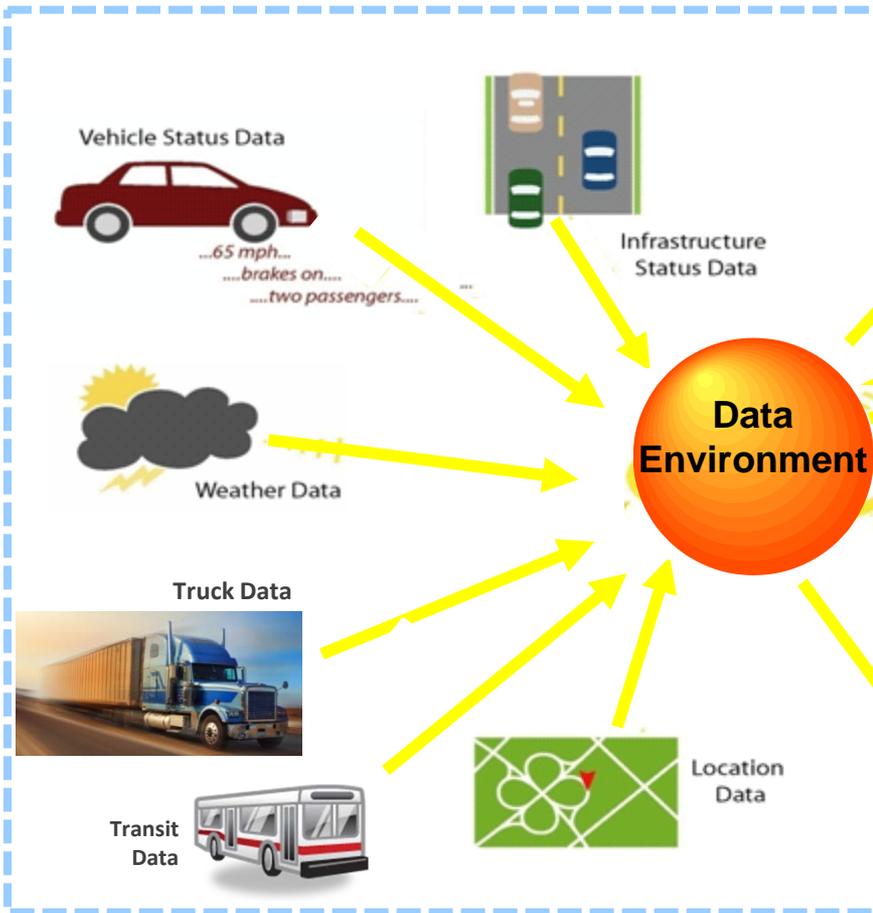
Wireless  
Devices

Infrastructure

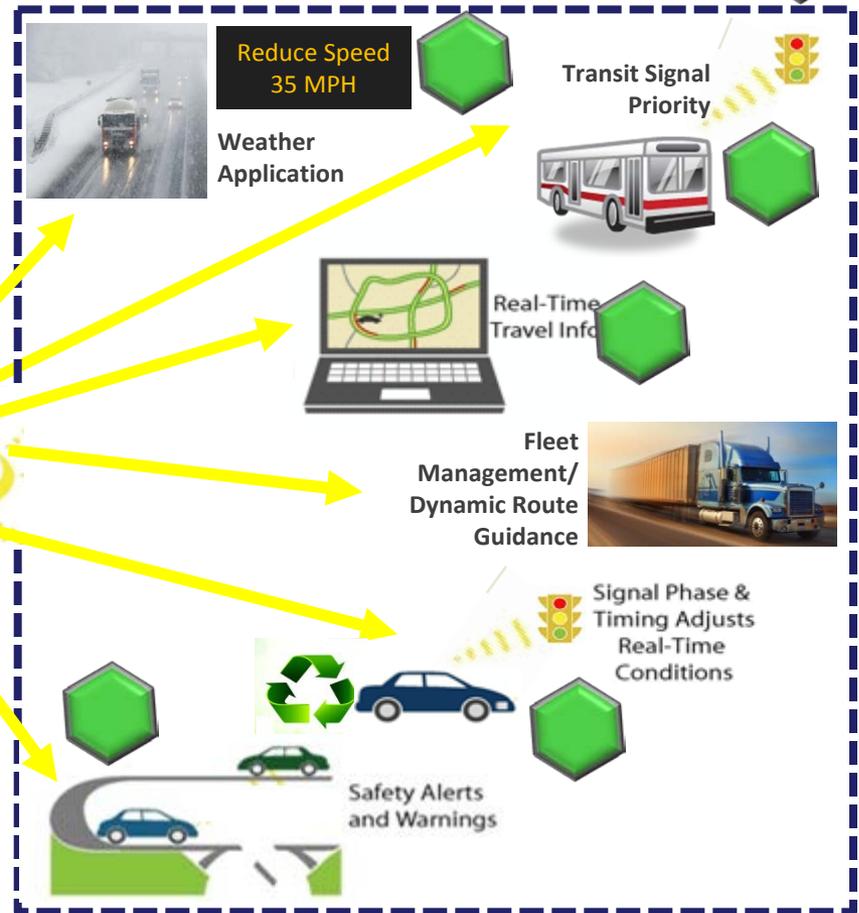


# Mobility Program

## Real-time Data Capture and Management



## Dynamic Mobility Applications



# Dynamic Mobility Applications Program

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## Vision

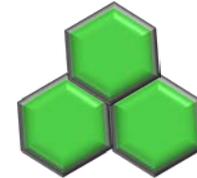
- Expedite development, testing, commercialization, and deployment of innovative mobility application
  - maximize system productivity
  - enhance mobility of individuals within the system

## Objectives

- Create applications using frequently collected and rapidly disseminated multi-source data from connected travelers, vehicles (automobiles, transit, freight) and infrastructure
- Develop and assess applications showing potential to improve nature, accuracy, precision and/or speed of dynamic decision
- Demonstrate promising applications predicted to significantly improve capability of transportation system
- Determine required infrastructure for transformative applications implementation, along with associated costs and benefits

## Project Partners

- Strong internal and external participation
  - ITS JPO, FTA, FHWA R&D, FHWA Office of Operations, FMCSA, NHTSA, FHWA Office of Safety



## Transformative Mobility Applications

*(May have more impact when BUNDLED together)*

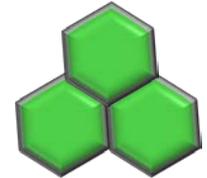


# Transformative Application Bundles: Identification of Prioritization Approach

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## Goal

- Identify, with help of stakeholders, collection of applications for development and testing in Phase 2 of Program



## Transformative Mobility Applications

## Approach

- Solicit ideas for transformative applications
  - Initial request closed on 31 July; second call closed 15 October
  - More than 90 submittals, quantity and quality exceeded expectations
- Share concepts with our stakeholders throughout the process
- Refine concepts to a manageable set of consolidated concepts (33)
  - Consolidated concepts used in variety of exercises at Mobility Workshop, 11/30-12/1/10 and with other stakeholder groups
  - ITE Task Force, Transit stakeholders, Freight stakeholders
- Combine stakeholder and federal input to support program prioritization

## Candidate Applications Prioritization Criteria

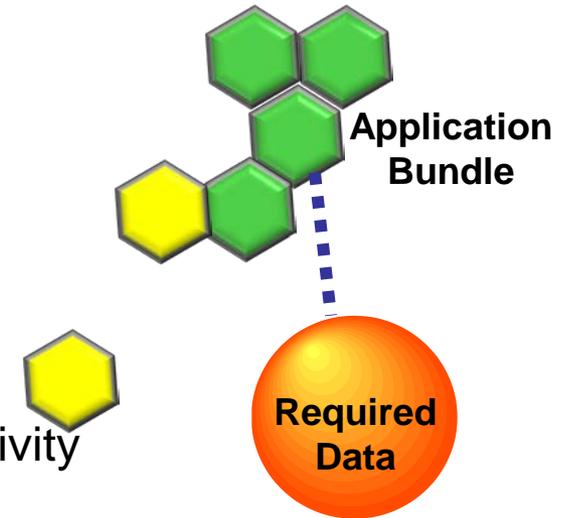
- Potential for transformative impact
- Makes use of connected vehicle data
- Significant stakeholder interest



# Transformative Application Bundles: Bundling Rationale and Prioritization Process

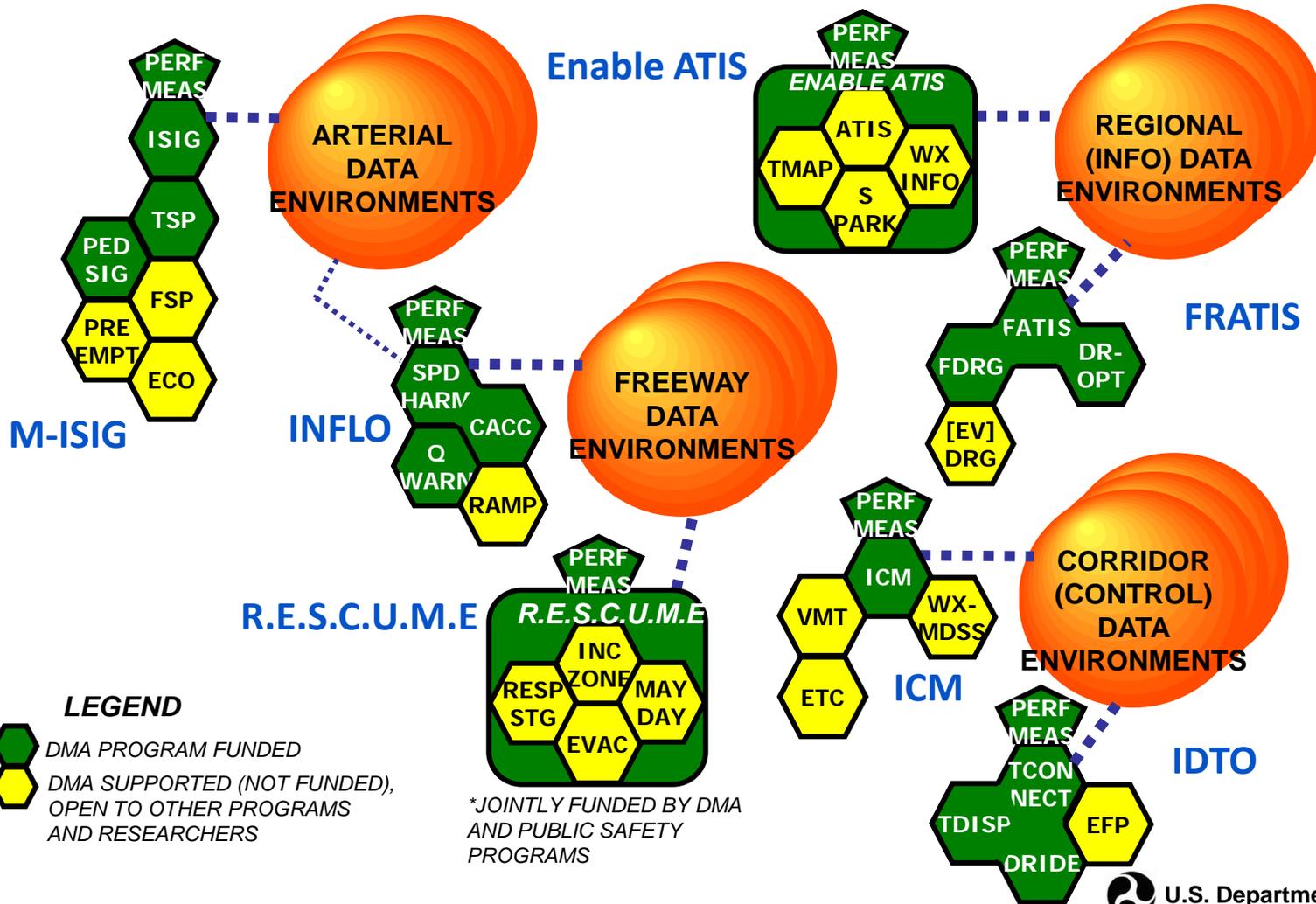
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- Consolidate input from external stakeholder groups, workshop
- Consider internal stakeholder priorities
  - Leveraging on-going or other planned research
- **Group Applications into Bundles**
  - Similar high-level data needs
  - Interaction among applications predicted
  - Evident value in concurrent development
  - Encourage coordinated non-federal research activity
- **Bundling increases transformational impacts and reduces costs of research and development**
- Resource-constrained prioritization process based on expected value of developing application bundles, as well as individual applications
  - Applications the program cannot fund at this time are still candidates for collaborative development with other programs or stakeholders
- **High-Priority Application Bundles announced at TRB 2011**

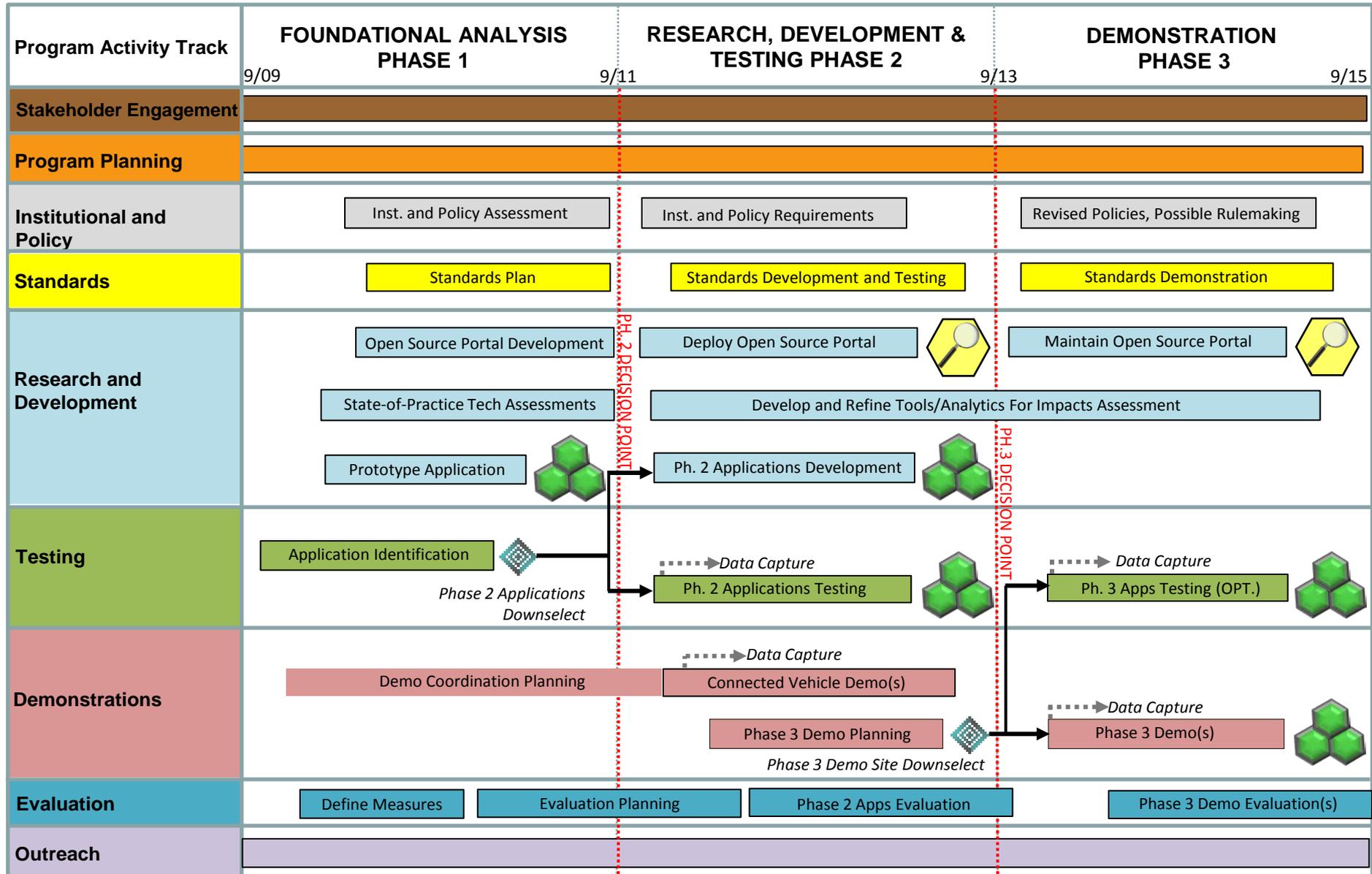


# DYNAMIC MOBILITY APPLICATIONS PROGRAM DATA ENVIRONMENTS AND APPLICATIONS MAPPING SUMMARY

93 ideas → 30 applications → 7 bundles



# Dynamic Mobility Applications Program Roadmap



Do the candidate applications show enough promise to be tested?
Do these applications address key performance measures?
Do we understand the communications requirements of these applications?
Are there clear and compelling arguments for deployments showing significant benefits?

**LEGEND:** Decision point

Program Activity

Data Capture Data Feed

Open Source Applications

Open Source Portal

# **What is *EnableATIS*?**

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- High priority application from Connected Vehicle/Mobility workshop feedback
- Unique among Dynamic Mobility Applications
- Represents a program environment for future traveler information capabilities
  - Transformative uses and applications
  - Enhanced user-level decision support
  - Improved system management



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# Industry Shifts and Perspectives

- Today is different than 2 years ago, 10 years ago
- Wireless – widely available, lower cost
- Personal mobile devices
- Rapid technology evolution
- Shift toward more integrated modal information
- Different approaches to data sharing
- On the cusp of true predictive and transformative applications of this information



# *EnableATIS* Operational Concept

- Establish a vision for *EnableATIS*
- Stakeholder input to:
  - User Needs
  - Transformative Goals
  - Performance Measures
- Operational Concept will:
  - Outline preliminary application opportunities
  - Define Federal role in future traveler information program(s)
  - Assess readiness of the market to support the next generation traveler information systems



# Stakeholder Selection

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- Federal and national
- State, regional, local
- Policy and advocacy
- Multimodal
- Academia and research
- Technology developers
- Traffic and ATIS industry experts



# Stakeholder Roles for *EnableATIS*

## Operational Concept

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- Provide input to the vision for *EnableATIS*
- Participate in upcoming workshop and webcast for *EnableATIS* Needs, Goals, Performance Measures
- Provide review of operational concept priorities
- Electronic feedback form available following the workshop/webcast
- *EnableATIS needs your specific knowledge and expert input*



# EnableATIS – Draft Vision

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*EnableATIS promotes an open approach to multi-source data sharing, integration, delivery, and future information provision paradigms.*

*EnableATIS provides a dynamic and transformative framework for real-time, multi-modal, and actionable traveler information services to improve the safety and mobility of the transportation network.*

*The framework created by EnableATIS facilitates micro-level traveler decision support needs as well as effective macro-level system management capabilities.*



# Workshop Logistics

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- Thursday, October 27
- Capital Hilton, Washington D.C.
- 10:00 AM – 4:30 PM
  - Lunch Break provided
  - Travel provided for public sector
- Introductory modules also webcast
- Free but Registration required through ITS America
  - E-mail to Adrian Guan: [aguan@itsa.org](mailto:aguan@itsa.org)
- All materials will be posted:  
[http://www.its.dot.gov/meetings/enableatis\\_meeting.htm](http://www.its.dot.gov/meetings/enableatis_meeting.htm)



# Workshop Format

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- Introductory information and context for DMA and Connected Vehicles
  - Group input to key industry trends, and transformative concepts
  - Topic-specific breakout groups
  - Revisit and update draft vision
  - Wrap up and next steps
- 
- *First portion also will be webcast for those who cannot participate in person*



# Workshop Objectives and Outcomes

- Multi-field, multimodal input and direction on:
  - What does the next generation of traveler information look like?
  - How will we use it?
  - What will be, or should be, different?
  - Brainstorming on operational scenarios
  - Roles (federal, state, local and private)
  - Timeframes and priorities
  - Challenges, constraints and influences



# Workshop Alternates

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- Introductory modules also conducted by webcast
- Electronic feedback form for additional input
  - Form will be available on the USDOT meeting notice web page
  - Will be open to broader audience than workshop
  - Will provide preliminary feedback to the workshop



# ***EnableATIS Project Timeline***

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- Workshop – October 27, 2011
- Workshop Summary – November 2011
- Draft Operational Concept – February 2012
- Final Operational Concept – April 2012
- Readiness Assessment – April 2012
- Wrap Up – May 2012



# For more information

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[http://www.its.dot.gov/meetings/enableatis\\_meeting.htm](http://www.its.dot.gov/meetings/enableatis_meeting.htm)



# Questions?

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