



*UNITED STATES*  
**DEPARTMENT OF TRANSPORTATION**

# **Intelligent Transportation Systems (ITS) Program Advisory Committee (ITS PAC)**

Web Conference

May 2, 2012

1:00 – 2:00 p.m.

Welcome! The meeting will begin shortly.

# Agenda

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- Welcome
- Opening Remarks
- Ethics Review
- Overview of ITS Program Advisory Committee
  - Committee Charter
- Overview of ITS Joint Program Office (JPO)
  - ITS Legislation
  - JPO Organization and Mission
  - JPO – Modal Administration Relationship
  - ITS Research Program Overview
- Summary and Adjourn



# Overview of ITS PAC Charter (Tab C & D)

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- **Establishment Authority:** Committee established by Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005; and must adhere to requirements of Federal Advisory Committee Act (FACA) of 1972
- **Duration:** Committee will remain in existence 2 years from charter effective date (January 23, 2012) unless recommended for termination or renewal by Secretary
- **Membership**
  - Not more than 20 members appointed by the Secretary upon recommendation of ITS Management Council and ITS JPO
  - Membership will be fairly balanced in terms of metropolitan and rural interests, and will include, to extent possible, individuals and/organizations that represent minorities, women, and disabled persons
  - Members serve for up to 2 years, or until replacements are appointed



# Overview of ITS PAC (cont)

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- ITSPAC Charter (cont)
  - **Duties:** ITSPAC will be responsive to specific assignments and may conduct studies, inquiries, and workshops as the Secretary may authorize or direct. At a minimum, the ITSPAC is expected to:
    - **Provide input into development of ITS aspects of Surface Transportation Research and Technology Development Strategic Plan**
    - Review, at least annually, areas of ITS research being considered for U.S. DOT funding to determine:
      - Whether activities are likely to advance either ITS state-of-the-practice or state-of-the-art
      - **Whether ITS technologies are likely to be deployed, and if not, to determine the barriers to deployment**
      - **Appropriate roles for government and private sector in investing in research and technologies being considered**



# Overview of ITS PAC (cont)

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- ITSPAC Accomplishments
  - 11 Meetings
    - 2007 – two
    - 2008 – two
    - 2009 – one
    - 2010 – two
    - 2011 – four
  - 4 Advisory Memoranda
    - May 2008
    - October 2008
    - August 2010
    - November 2011



# ITS Research Program Legislation

## Background (Tab E)

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- **Intermodal Surface Transportation Efficiency Act (ISTEA) – 1991**
  - Operational Tests
  - Deployment
  - Architecture Development and Standards Program Initiated
  - Commercial Vehicle ITS Infrastructure (CVISN) Initiated
- **Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) – 1998**
  - ITS Research and Development Program
  - ITS Deployment Program – Fully Earmarked
- **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) – 2005**
  - ITS Research Program focuses on connected vehicles
  - Currently extended
  - \$110 million annually
- **Future Legislation?**



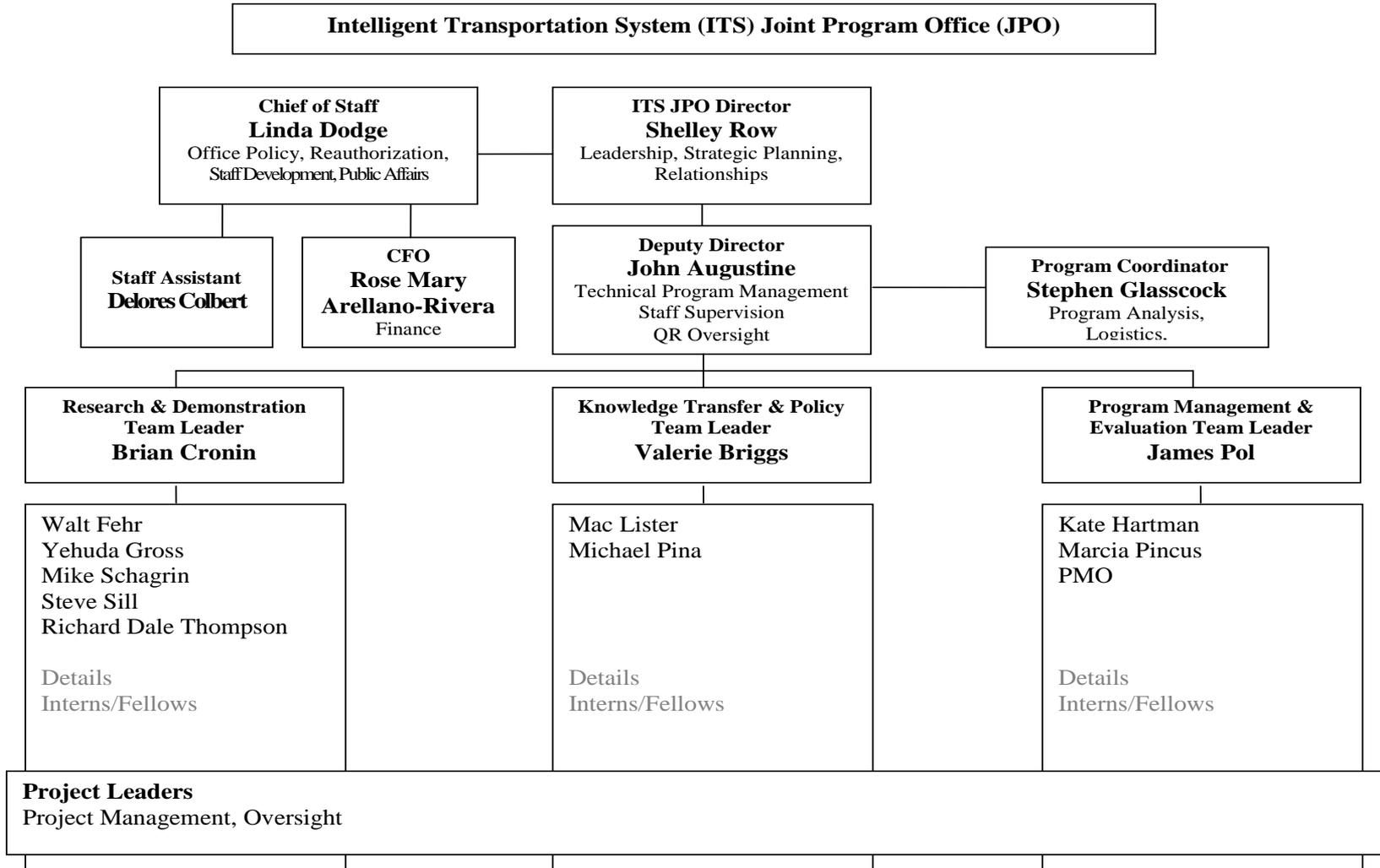
# ITS Research Program Legislation Requirements (Tab E)

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- **Scope – Subject to the provisions of this subtitle, the Secretary shall conduct an ongoing intelligent transportation system program to research, develop, and operationally test intelligent transportation systems and to provide technical assistance in the nationwide application of those systems as a component of the surface transportation systems of the United States**
- **Legislation Requirements:**
  - Advisory Committee
  - Information Clearinghouse
  - ITS Research, development, and operational tests for intelligent vehicles and intelligent transportation
  - National ITS Architecture and Standards
  - Road Weather - \$5 million
  - Operational Test Guidelines
  - Multi-state Corridor Operations and Management (MCOM) - \$7 million



# ITS JPO Organization & Management



# ITS Program Coordination & Governance

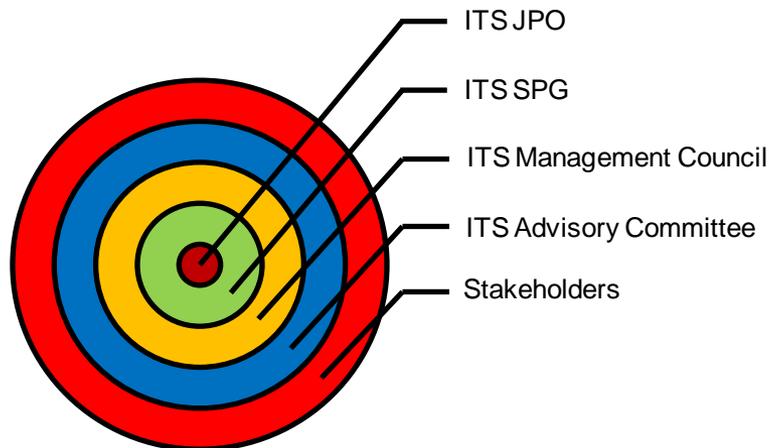
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- The ITS Joint Program Office (JPO) is responsible for developing, recommending, and implementing the strategic direction for ITS research, technology transfer, fiscal accountability, overall coordination, and serves as the USDOT voice for ITS. The ITS JPO coordinates with the modal administrations on implementation, deployment, and support.
  
- The principal modal partners in the ITS Program are:
  - Federal Highway Administration (FHWA)
  - Federal Motor Carrier Safety Administration (FMCSA)
  - Federal Railroad Administration (FRA)
  - Federal Transit Administration (FTA)
  - Maritime Administration (MARAD)
  - National Highway Traffic Safety Administration (NHTSA)
  - Research and Innovative Technology Administration (RITA)



# ITS Program Management & Governance

- **The ITS JPO coordinates ITS-related research through the multimodal ITS Strategic Planning Group (SPG) and ITS Management Council.**
  - The SPG is the primary coordinating body for the ITS Program and is comprised of two members from each modal administration at the associate administrator level.
  - The ITS Management Council provides Senior level guidance in the ITS Program. Chaired by the Deputy Secretary of the U.S. Department of Transportation (USDOT), it is comprised of the Assistant Secretary of Transportation for Policy, and administrators of the USDOT modes routinely involved in ITS Program activity:
    - OST
    - FHWA
    - FMCSA
    - FRA
    - FTA
    - MARAD
    - NHTSA
    - RITA



# ITS Strategic Research Plan: A Truly Multimodal Effort

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## Vision

To research and facilitate a national, **multimodal surface transportation system** that features a connected transportation environment around **vehicles of all types**, the infrastructure, and portable devices to serve the public good by leveraging technology to maximize safety, mobility, and environmental performance.

Plan developed with full participation by all surface transportation modal administrations as well as with significant interaction with multi-modal stakeholders.



# ITS JPO Organization, Management, and Proposed Mission

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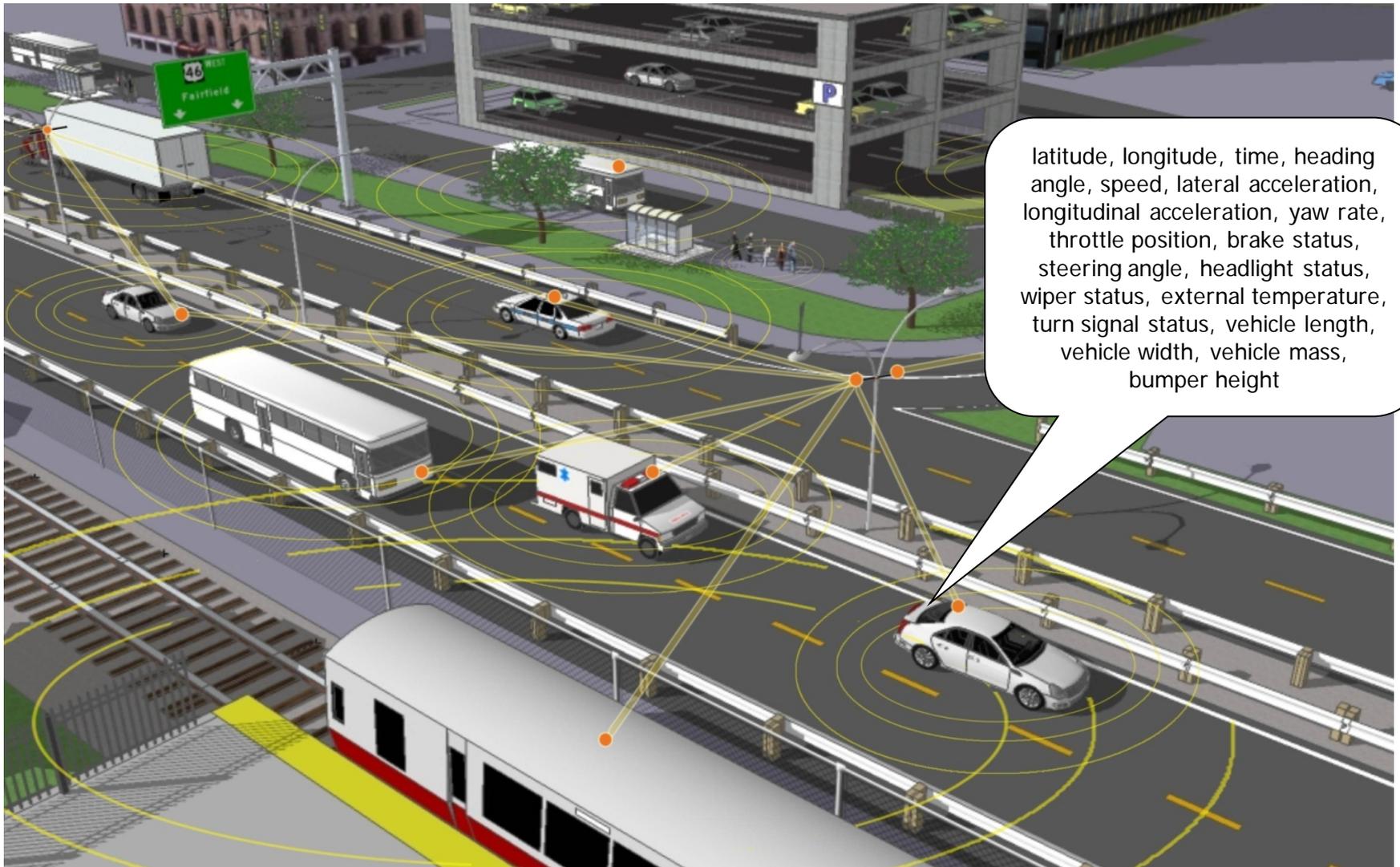
The ITS JPO conducts research, operational tests, demonstrations, technology transfer and evaluation for the application of technology to improve the safety and performance of the surface transportation network. In the execution of this mission, the ITS JPO exercises a Department-wide role, and is US DOT's primary advocate and national leader for the ITS research and deployment program. The program uses advanced computer information and telecommunication technologies to improve the efficiency and safety of our Nation's surface transportation system and address issues including congestion, safety, mobility, vehicle-infrastructure; integrations, and road weather applications.

## **Strategic Plan – 2010 (Tab F)**

- Connected Vehicle Research Focus:
  - Assessed technology trends
  - Stakeholder outreach
  - High value research with appropriate federal role



# Fully Connected Vehicle



# Estimated Connected Vehicle Benefits

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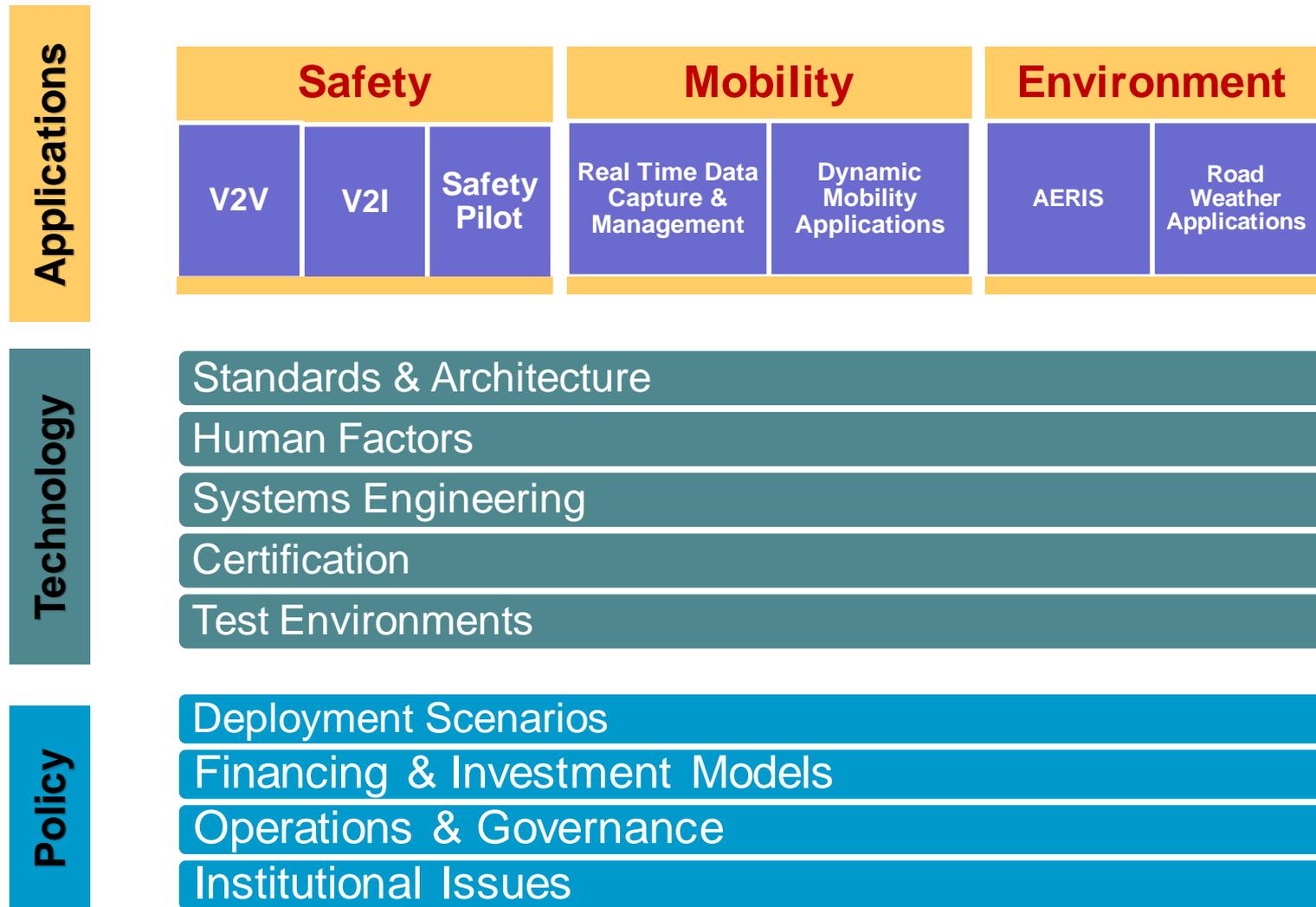
Up to **80%** of non-impaired crash types may be impacted by connected vehicle technology

Source: NHTSA

Based on initial estimates & studies. Actual benefits are not determined at this time.



# ITS Research Program Components



# Other ITS Research Components

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- Technology Transfer
  - PCB
  - Evaluation
  - Deployment Tracking
  
- Exploratory Research
  - Automated vehicles
  - Cyber-security
  - Electric Vehicles
  
- Short-term Multi-Modal Research
  - FHWA - Active Traffic Management
  - FMCSA/FHWA - International Border Crossing E-screening
  - FMCSA/FHWA - Smart Roadside
  - FMCSA - CVISN Core and Expanded



# May 24, 2012 Meeting

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- Read Ahead Material
  - Deployment Tracking Summary
  - PowerPoint on V2V, V2I, Dynamic Mobility Applications (DMA) activities, and Data Capture Management (DCM)
  - USDOT Principles and Authorities
  - Network Security Summary
  - Basic Safety Message
  - Privacy Paper
- May 24 Meeting
  - Briefing on V2V, V2I, DMA, and DCM
  - Network Security
  - Key Issues:
    - Financial Models
    - Implementation Approach
    - Future ITS Vision
  - Decide on your areas of interest for more focus:
    - Timeline of Work
    - Future Meetings

