



*UNITED STATES*  
**DEPARTMENT OF TRANSPORTATION**

# **Vehicle-to-Infrastructure Communications: Applications and Policy**

## **ITS America Annual Meeting SS28:**

Connected Vehicles for Safety: Vehicle-to-Vehicle, Safety Pilot,  
and Vehicle-to-Infrastructure

Nashville, TN

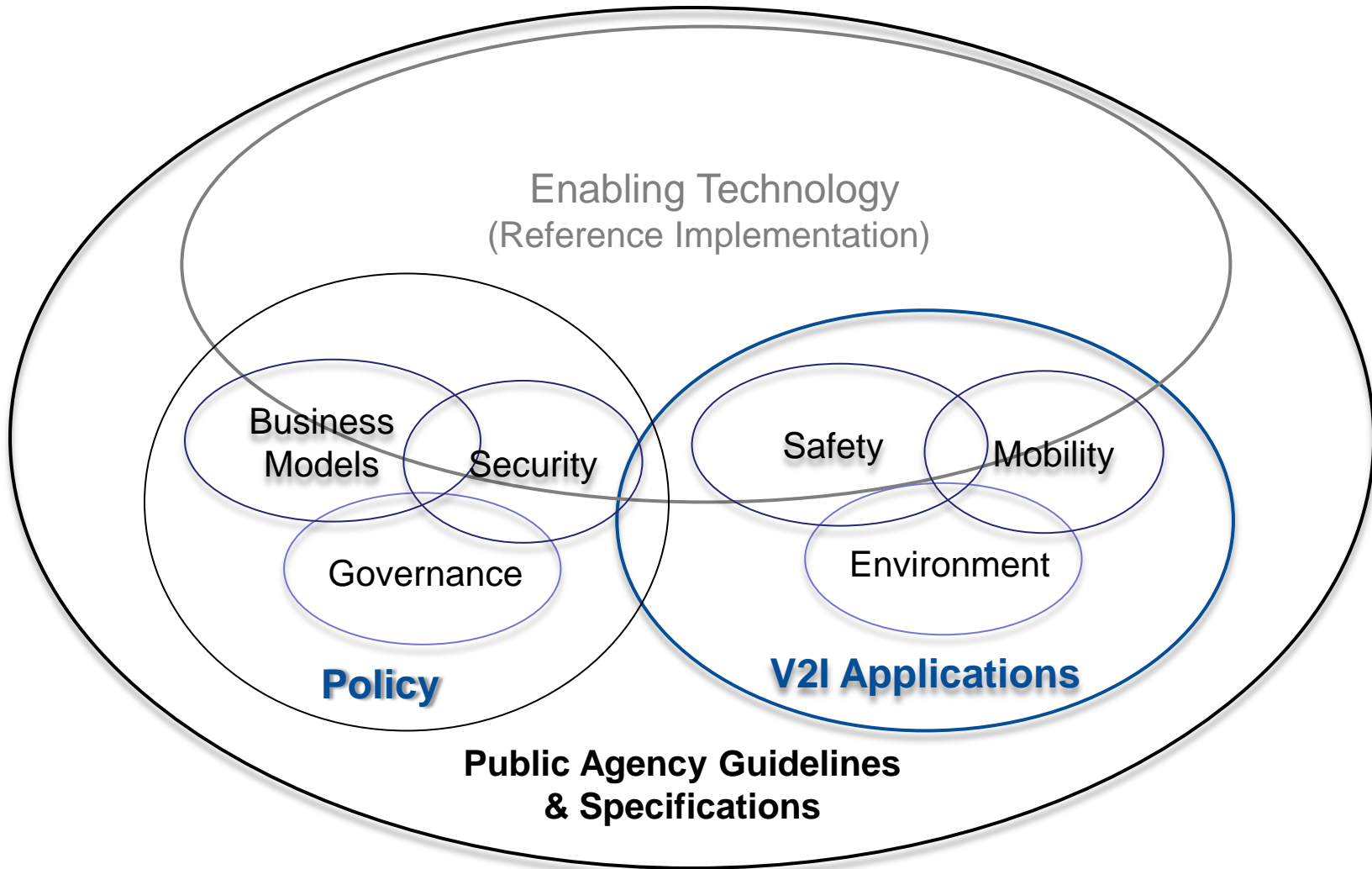
April 24, 2013

**Karen Timpone**

**ITS and Connected Vehicle Program  
USDOT, FHWA Office of Safety**

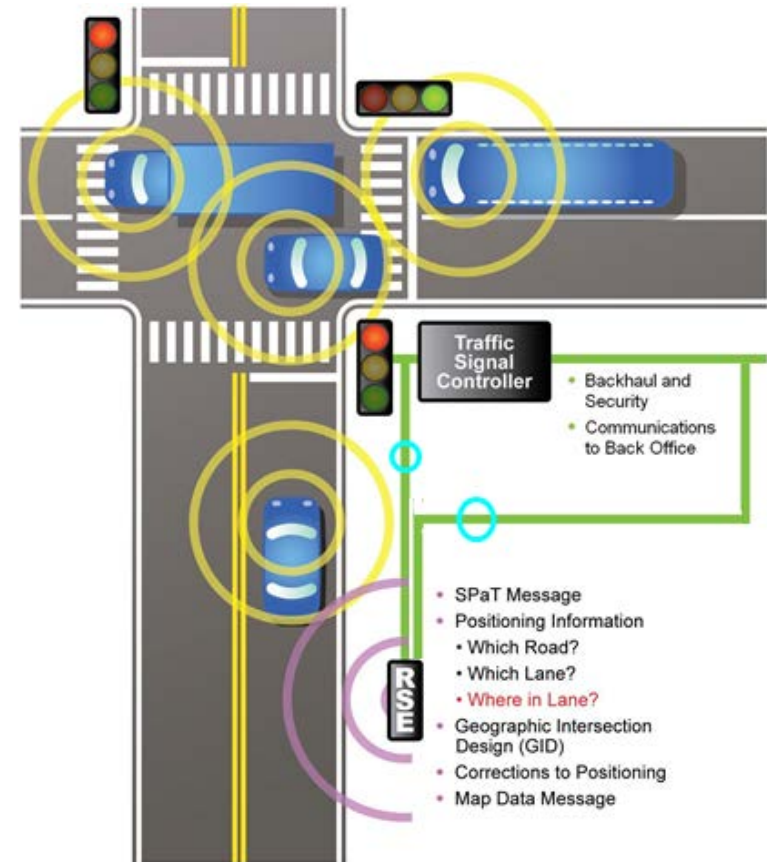
# V2I Communications – Major Activities

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# V2I Communications

- Applications Selection, Development and Evaluation
  - V2I Safety Applications
  - Transit V2I Applications
  - Smart Roadside Prototype
- Infrastructure Planning and Policy
  - Final Products are Public Agency Guidelines and Specifications

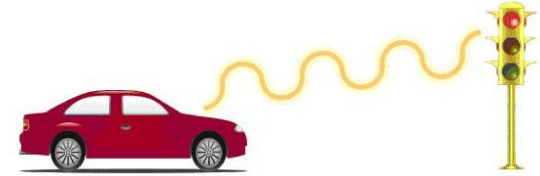


# V2I Safety Applications – Current Activities

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Accelerated  
Development

- *Red Light Violation Warning*
- *Curve Speed Warning*
- *Stop Sign Gap Assist*



Additional  
Potential  
Applications

- *Reduced Speed/Work Zone Warning*
- *Spot Weather Impact Warning*
- *Stop Sign Violation Warning*
- *Railroad Crossing Violation Warning*
- *Oversize Vehicle Warning*



# V2I Safety Application Development – Next Steps

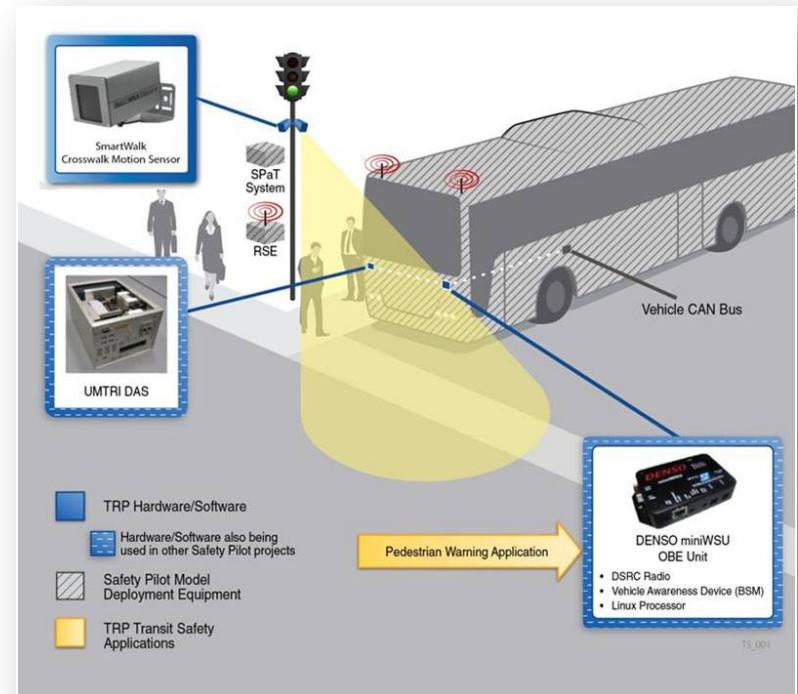
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- Complete Systems Engineering work to develop Performance Requirements
- Contract for Application Development
  - Design Documentation
  - Prototyping
  - Simulation / small-scale testing
  - Refinement
- Perform field operational tests in a real world environment
- Connected Vehicle Multi-modal demonstrations



# Transit V2I

- Current Activities
  - Complete Transit Safety Retrofit Package (TRP) in Safety Pilot
- Planned Near-term Steps
  - Transit V2I Assessment Research
  - Evaluate TRP applications



# Smart Roadside Prototype

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Smart Roadside Initiative (SRI) is a joint modal initiative between Federal Highway Administration (FHWA) and Federal Motor Carrier Safety Administration (FMCSA).

- Current Activities
  - Prototype design
  - Site Selection
- Planned Near-term Steps
  - Prototype development and testing
  - Final Documentation
  - 3 SRI Procurements
    - Gaps Analysis, Macro Benefits, and Impacts Assessment



# Infrastructure Planning and Policy

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- Current Activities
  - Infrastructure Deployment Assessment
  - Certification Policy
  - Value of Infrastructure
- Planned Near-term Steps
  - Public Agency Guidelines and Specifications – initiate work on the toolbox





# For More Information.....

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U.S. Department  
of Transportation

For additional information, please  
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# Thank you!

