



# Highways for LIFE Program Overview PCPS Showcase

*Accelerating innovation for the American driving experience*

Mt Arlington, NJ  
October 14, 2008

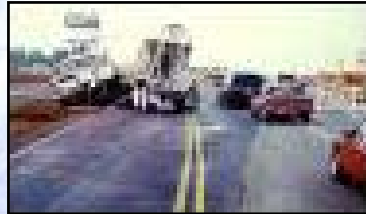


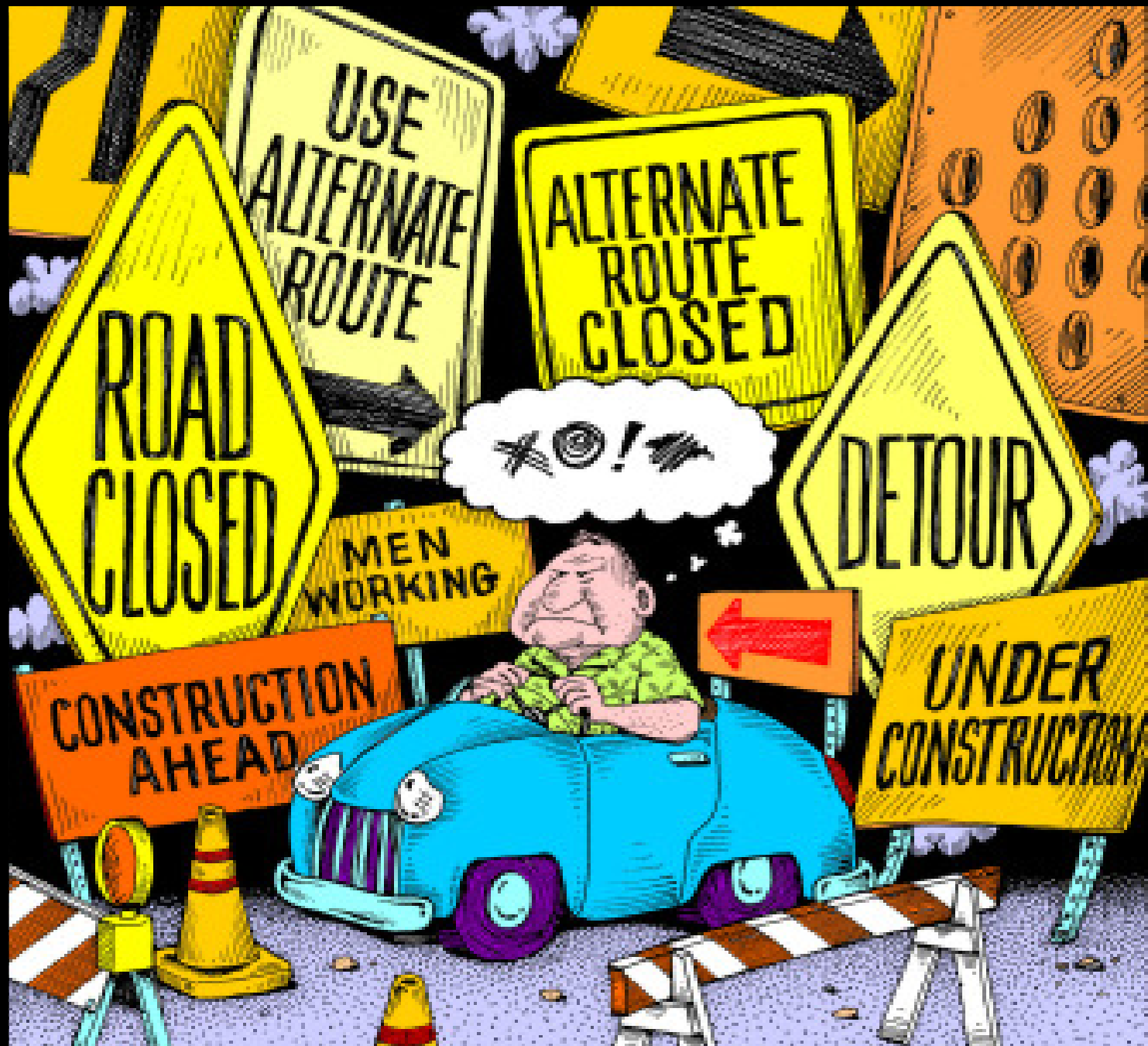


# **More cars and trucks Old highways and bridges**



# Too many crashes and injuries





The background of the slide is a blue-tinted photograph of a highway. In the foreground, a road with a white dashed line on the right side leads towards a tunnel entrance. A car is visible inside the tunnel. In the background, a large bridge spans across a valley. The sky is overcast. A small orange speech bubble icon is in the top left corner. A red L-shaped graphic element is positioned on the left side of the slide, with a vertical line extending upwards and a horizontal line extending to the right, intersecting the main text area.

# **We can build highways:**

**Faster**

**With less congestion**

**With better safety and quality**

**At lower cost**



**How?**

- ✓ **Setting specific perf. goals**  
**and**
- ✓ **Seeking the best solutions**



# Highways for LIFE

## Setting Performance Goals:

- **Focus on user**
- **Set at a high level**
- **Define end results**
- **What, not How**
- **Encourage innovation**



# Highways for LIFE

## Seeking the best solutions:

- **Benchmarking**
- **Team approach**
- **Be innovative**





# Highways for LIFE

## Program Elements:

- **Technology Transfer**
- **Technology Partnerships**
- **Demonstration Projects**
- **Communication**



# Highways for LIFE

## Technology Transfer Actions

- **Workshops/open-houses**
- **Vanguard Technologies**
- **Technical Briefs**
- **Webinars (Two-Lift, Precast Pavements)**
- **Toolkit DVD's (PBES, RSA,PCPS,HfL)**
- **Display Booth**

The background of the slide features a blue-tinted image of a highway. In the foreground, a road with a white dashed line on the right side leads towards a tunnel entrance. Above the tunnel, a bridge structure is visible, and in the distance, another bridge spans across a valley. The overall scene is set against a bright, hazy sky.

# Vanguard Technologies

- **Prefabricated bridge elements and system (PBES)**
- **Road safety audits (RSA)**
- **Making work zones work better**
- **Precast concrete pavements system (PCPS)**



# Highways for LIFE

## Formal Marketing Plans

- **Develop Goals**
- **Identify Target Audiences**
- **Identify Resistance**
- **Develop Rigorous Action Plan**



# Highways for LIFE

- **Videoconference**
- **DVD of videoconference**
- **Marketing plan**
- **Regional showcases (3)**
- **Webinars**
- **Toolkit DVD**
- **Rotational assignment**



# Highways for LIFE

## Technology Partnership

- **All-Weather Pavement Marking System (3M Co.)**
- **Intelligent Asphalt Compaction Analyzer (*Haskell Lemon Construction Co.*)**
- **Aggregate Imaging System (*Pine Instrument Co.*)**
- **Automated Pavement Marker Placement System (*Stay Alert Safety Services*)**
- **Asphalt Binder Cracking Device (*EZ Asphalt Tech,LLC.*)**

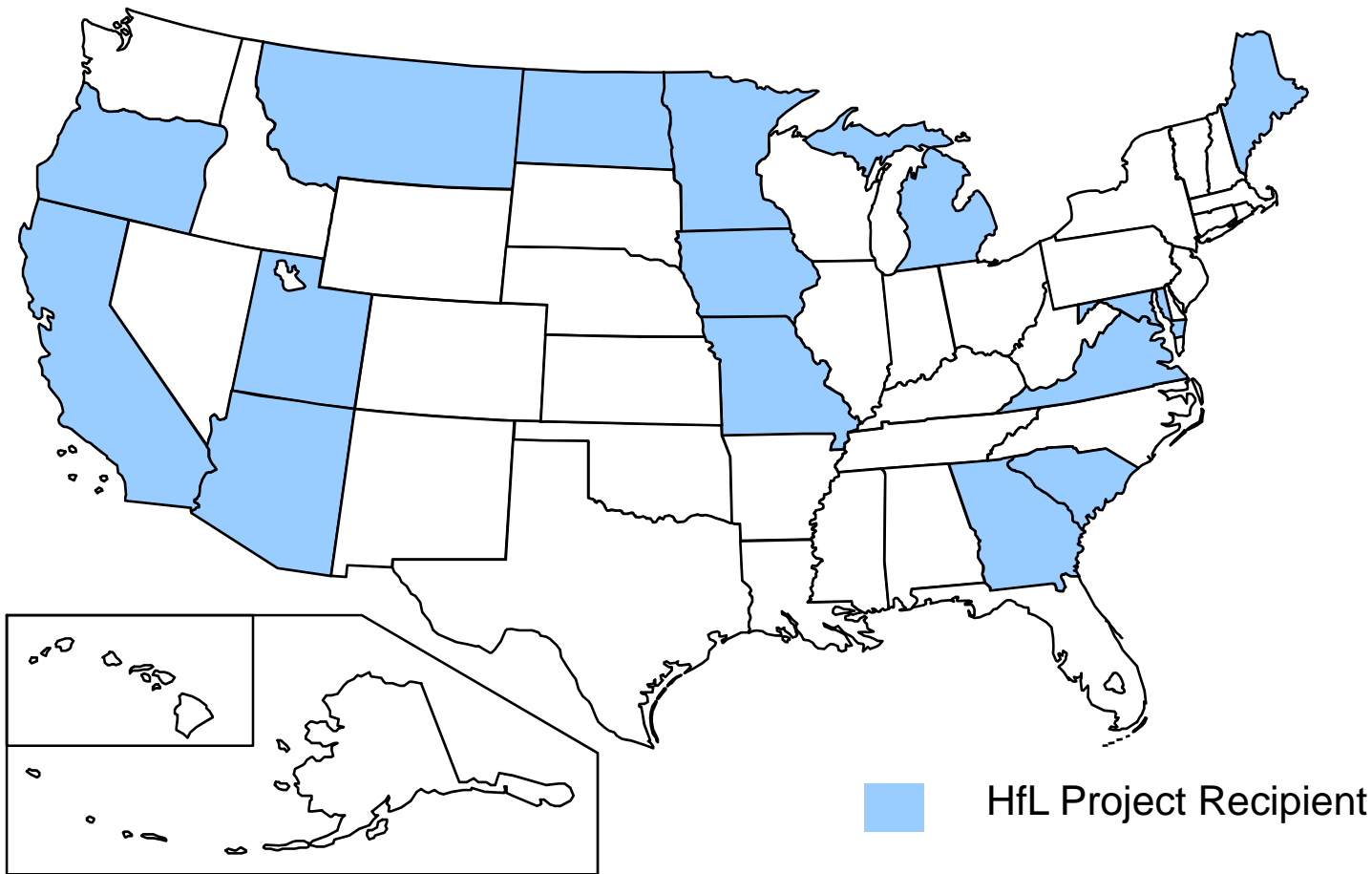


# Highways for LIFE

## Demonstration Projects

- Performance goals for safety, quality, construction congestion and user satisfaction
- Innovations to achieve goals

# Highways for LIFE Demonstration Projects







# Iowa 2006

## Innovations:

- Prefab bridge elements
- High performance concrete
- High performance steel
- Self consolidating concrete
- Innovative contracting
- Assembled a multifaceted team

## Benefits:

- 50% reduction in time for bridge construction



# Minnesota 2006

## Innovations:

- Full road closure
- Innovative contracting
- Intelligent Compaction
- Lightweight Deflectometer
- Real-time ITS

## Benefits:

- Reduce construction time by 80% (5 months vs. 2 year)





# Georgia 2007

## Innovations:

- Design / build
- Performance contracting
- Prefab bridge elements
- Real-time ITS

## Benefits:

- Reduce construction time by 40%







# Oregon 2007

## Innovations:

- Work zone safety technologies
- Self propelled modular transporter
- Prefab bridge elements
- High performance concrete
- Innovative contracting
- Context sensitive solutions

## Benefits:

- Minimize disruption to traveling public



# Utah 2007

## Innovations:

- Total prefab bridge
- Self propelled modular transporter
- Construction manager contractor
- Work zone traffic technologies
- Silica fume concrete deck



**Benefits: Traffic was interrupted for 48 hours only**





# Virginia 2007

## Innovations:

- **Modular precast pavements ( both prestressed and jointed systems)**
- **Innovative contracting**
- **Elaborate MPT technologies (ITS)**
- **I-66 & US 50 Ramp**

## Benefits:

**75% reduction in construction impacts to traffic**









# Highways for LIFE Demonstration Projects

***Last  
call!***

**FY 08 incentive  
funds not  
available.**

**FY 09 solicitation  
is open.**

**Waive match  
option is open.**



# Highways for LIFE

## Demonstration Projects

**One-day  
workshop**

### **Seeking the Best Solutions**

- ✓ **Performance Goals**
- ✓ **Innovations to achieve goals**
- ✓ **Performance contracting**

***Building a successful HfL project***



# Highways for LIFE

*Accelerating innovation for the American driving experience*

Contact your Division Office

[www.fhwa.dot.gov/hfl](http://www.fhwa.dot.gov/hfl)

[www.pdshowcase.net](http://www.pdshowcase.net)



U.S. Department of Transportation  
**Federal Highway  
Administration**