



# **FHWA Research Perspective and Policy Update**

## **SHRP2 R26 Workshop for the Preservation of High-Traffic- Volume Roadways**

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FHWA Office of Research, Development & Technology





## Other SHRP2 Pavement Implementation Activities

- Guidelines for the Preservation of High-Traffic-Volume Roadways (R26)
- Tools to Improve PCC Pavement Smoothness During Construction (R06E)
- Precast Concrete Pavements (R05)
- Performance Specifications for Rapid Renewal (R07)
- New Composite Pavement Systems (R21)





## Regulation, Policy, Guidance

- **Rule Making** - Contact: [stephen.gaj@dot.gov](mailto:stephen.gaj@dot.gov) or 202 366 1336
  - Asset Management
  - Pavement Performance Measures
- **Clarification Memo: Preservation and Preventive Maintenance** - Contact: [bryan.cawley@dot.gov](mailto:bryan.cawley@dot.gov) or 202 366 1333)





## Accelerated Implementation and Deployment of Pavement Technologies – Selected Activities

- **Pavement Sustainability Reference Guide**
  - [gina.ahlstrom@dot.gov](mailto:gina.ahlstrom@dot.gov) or 202 366 4612
- **Rubber - Asphalt Best Practices Guide**
  - [matthew.corrigan@dot.gov](mailto:matthew.corrigan@dot.gov) or 202 366 1549
- **Optimization of Pavement Overlays for Preservation**
- **Highway Materials Engineering Course**
  - [michael.rafalowski@dot.gov](mailto:michael.rafalowski@dot.gov) or 202-366-1571



## Every Day Counts

- Latest Accelerated Innovation Deployment Demonstration Grants
  - Alabama
  - Iowa
  - **Oklahoma**
  - Vermont
  - Washington
- Announcement of EDC Round 3 Innovations



## EDC-3 Innovations – A Sample

- Locally Administered Federal-Aid Projects: Stakeholder Partnering
- 3D Engineered Models: Schedule, Cost, and Post-Construction
- Improving DOT and Railroad Coordination (SHRP2 R16)
- Geosynthetic Reinforced Soil – Integrated Bridge System
- e-Construction
- Smarter Work Zones
- Ultra-High Performance Concrete Connections for Prefabricated Bridge Elements





# Research

- Sustainable Pavement Solutions for Utility Cuts
  - Contact: [morgan.kessler@dot.gov](mailto:morgan.kessler@dot.gov), 202-493-3187
- Snowplow Guidance Systems
  - Contact: [morgan.kessler@dot.gov](mailto:morgan.kessler@dot.gov), 202-493-3187
- Integrating 3D Models into Asset Management
  - Contact: [morgan.kessler@dot.gov](mailto:morgan.kessler@dot.gov), 202-493-3187
- Potential LTPP Preservation Experiment
  - Contact: [jack.springer@dot.gov](mailto:jack.springer@dot.gov), 202-493-3144





## FHWA's R&T Agenda

- In SAFETEA-LU, Congress designated funding, structure and earmarks to certain external entities
- MAP-21 provides FHWA with **flexibility** to structure a comprehensive R&T program that aligns with highway transportation needs and supports performance goals
- The new FHWA R&T Agenda website shows how the R&T program is aligned to address six major national highway challenges







## FHWA R&T Agenda Website Overview

### *The website is designed to:*

- Tell the FHWA R&T story – what we do & why
- Provide high-level overview & context of FHWA R&T
- Show the cross-cutting work of FHWA offices
- Improve transparency of the FHWA R&T portfolio to stakeholders
- Provide a web-based mechanism for stakeholder input





## Presents FHWA's R&T Agenda from two perspectives – *challenges* and *program* areas

### Major, national-level challenges:

- Advancing Safety
- Enhancing System Performance
- Improving the Mobility of People and Goods
- Maintaining Infrastructure Integrity
- Promoting Environmental Sustainability
- Preparing for the Future

### Program areas:

- Safety
- Policy
- Operations
- Innovative Program Delivery
- Infrastructure
- Planning and Environmental
- Federal Lands
- Exploratory Advanced Research





## R&T Agenda Homepage / Challenges

U.S. Department of Transportation  
Federal Highway Administration

FHWA Home | Feedback

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**Federal Highway Administration Research and Technology**  
Coordinating, Developing, and Delivering Highway Transportation Innovations

**FEDERAL HIGHWAY ADMINISTRATION (FHWA) RESEARCH AND TECHNOLOGY AGENDA**

Home Challenges Meeting the Challenges Site map

Federal Highway Administration > Research > FHWA Research > FHWA Research and Technology Agenda

### Federal Highway Administration (FHWA) Research and Technology Agenda

**Preparing for the Future**  
FHWA's vision for the Nation's roadways extends beyond today's challenges, anticipating the emerging issues of tomorrow.  
[Learn more >>](#)

1 2 3 4 5 6

Welcome to the FHWA Research and Technology Agenda. Discover how FHWA's offices and programs are addressing six of the Nation's key highway challenges.

#### Challenges

The FHWA Research and Technology Agenda targets six high-priority highway challenges that affect all of us

- [advancing safety](#)
- [improving mobility](#)
- [maintaining infrastructure integrity](#)
- [enhancing performance](#)
- [promoting sustainability](#)
- [preparing for the future](#)

#### Meeting the Challenges

Learn how FHWA's offices and programs are meeting today's highway challenges through research.

- Infrastructure
- Operations
- Safety
- Federal Lands
- Planning, Environment, and Realty
- Policy
- Exploratory Advanced Research
- Innovative Program Delivery

**Share Your Thoughts**

You can help shape the agenda by providing feedback about highway challenges as well as the objectives and strategies FHWA is using to address them. Look for opportunities to contribute throughout the site.

U.S. Department of Transportation  
Federal Highway Administration



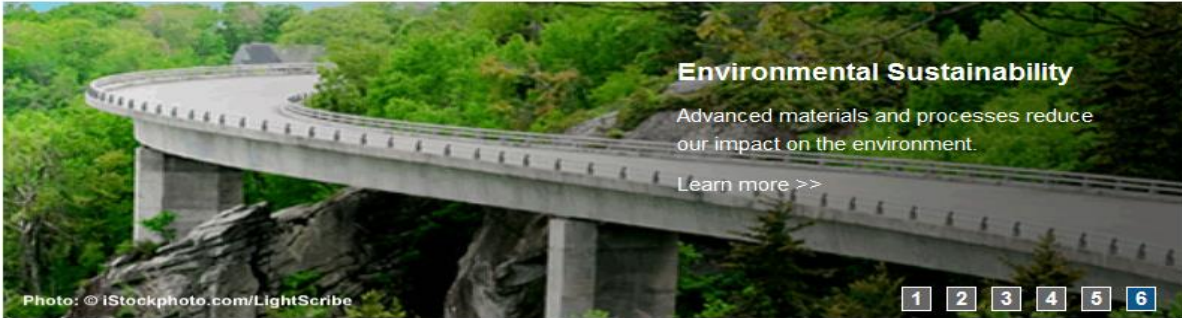
## Infrastructure Challenges

Federal Highway Administration > Research > FHWA Research > FHWA Research and Technology Agenda

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Research Home  
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### Meeting the Challenge: Infrastructure



**Environmental Sustainability**  
Advanced materials and processes reduce our impact on the environment.  
[Learn more >>](#)

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1 2 3 4 5 6

The United States has one of the most extensive transportation systems in the world, representing trillions of dollars of public and private investment. To fulfill its role as the guardian of this critical highway infrastructure, FHWA is engaged in forward-looking research that supports safety and environmental sustainability while modernizing bridges and roads through better materials, new construction techniques, and consistent quality control. This research increases the highway system's productivity and performance, reduces operational and replacement costs, and ensures a world-class highway system long into the future.

The strength of the infrastructure in the United States depends on quality

**For More Information**  
FHWA Office of Infrastructure Research and Development  
FHWA Office of Infrastructure

**Program Contact**  
Jorge E. Pagán-Ortiz  
FHWA Office of Infrastructure Research and Development  
Tel: 202-493-3023



# We want your feedback!

## R&T Agenda Questions:

- *What do you see as the key highway transportation problems facing the nation?*
- *Is FHWA addressing the right (nationally critical) challenges? If not, what other national challenges should FHWA address?*
- *Does FHWA's overall research strategy align with the most critical challenges? If not, what areas are missing?*
- *Are you engaged in research that may contribute to FHWA's research strategies? If so, please explain.*





## R&T Agenda Website

[www.fhwa.dot.gov/research/fhwaresearch/agenda](http://www.fhwa.dot.gov/research/fhwaresearch/agenda)

