

# Federal Highway Administration Innovative Materials Research and Technology

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# FHWA Innovative Materials Research

- Exploratory Advanced Research—  
Breakthrough Concepts in Materials Science.
- New/Improved Test Methods.
- Enabling Research.
- Applications of Innovative Materials in  
Highway Infrastructure.



# Research–Our Niche

Needs of national interest that cannot or will not be effectively addressed by others.



# Breakthrough Concepts in Materials Science

- Alternative Cementitious Materials.
- Innovative Binders.
- Innovative Alloys.
- ...



# New/Improved Test Methods

- Characterization.
- Performance Assessment.



# Enabling Research (Examples)

- Weld Qualification for Novel Steels.
- Design Details for Ultra-High Performance Concrete (UHPC).
- Design Provisions for Light-Weight Concrete.
- ...



# Applications of Innovative Materials

- UHPC.
- Structural Adhesives in Steel Bridge Construction.
- ...



# Bridging the Gap

## **Accelerated Market-Readiness Program**

- Full-Depth UHPC Waffle Bridge Deck Panels.
- Composite Bridge Decking.
- ...





# Implementation of Innovative Materials

- Draft Standards.
- Technical Assistance.
- Every Day Counts.
- Accelerated Innovation Deployment Program.



# Thank you!

