

## The Accelerating Market Readiness (AMR) program helps move promising highway industry innovations from prototype to market.

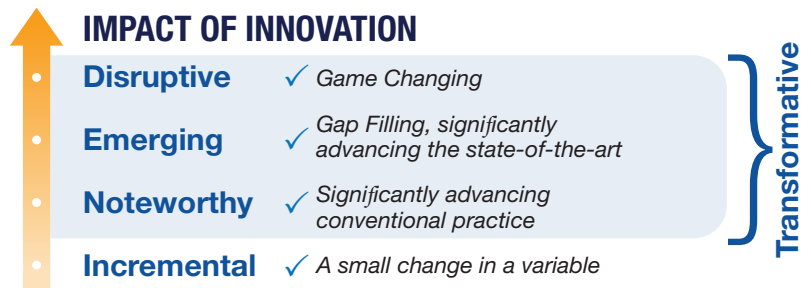
Successfully integrating new innovations into widespread use can take many years, often due to the gap between research and practice when a technology has been proven, but is not yet ready for the marketplace. The Federal Highway Administration's (FHWA) AMR program advances *transformative* innovations by funding pilot demonstrations and evaluations. The goal is to move innovations into the marketplace that offer significant improvement over similar, currently available innovations or practices to accelerate project delivery.

### AWARD AMOUNTS

Up to **\$3 million** total is available for AMR awards annually.

### ACTIVITIES ELIGIBLE FOR FUNDING

- ▶ Field evaluations and testing
- ▶ Pilot demonstration projects
- ▶ Performance results documentation



The AMR Program targets transformative innovations.

### PROGRAM FOCUS AREAS

AMR awards support key U.S. Department of Transportation and FHWA goals in safety, accelerated project delivery, and infrastructure performance. AMR addresses specific technology and knowledge gaps to reduce transportation-related fatalities and serious injuries, shorten project delivery timeframes, reduce project life cycle costs, and optimize the operation and performance of existing transportation facilities. Specific focus areas include:

#### Safety

- ▶ Highway design, infrastructure, and traffic control devices that address safety risks.
- ▶ Improved safety data analysis, or better methods of using data, to guide decisions.
- ▶ Methods to mitigate risks on State and locally owned roads in rural communities.
- ▶ Means to facilitate faster deployment of automated vehicles.

#### Accelerated Project Delivery

- ▶ Improved project development and delivery processes that safeguard communities and maintain a healthy environment.
- ▶ Methods for improved targeting of Federal investments on transportation projects that address high-priority infrastructure needs.
- ▶ Opportunities to better leverage State and local resources and private sector engagement.

#### Infrastructure Performance

- ▶ Improved transportation system operations and performance throughout its life cycle.
- ▶ Innovative maintenance and preservation strategies to restore transportation assets to a state of good repair.
- ▶ Operational and risk management practices for infrastructure planning, construction, and maintenance.

## APPLICATION PROCESS

FHWA and a peer review panel of representatives from the American Association of State Highway and Transportation Officials (AASHTO) Innovation Initiative will evaluate the proposals. FHWA and its partners, including the AASHTO Innovation Initiative and the national State Transportation Innovation Council Network, will widely disseminate the project performance results.

## PROJECT EXAMPLES



### In Situ Scour-Testing Device

**Need:** Improve the accuracy of bridge scour estimates, as bridge scour is the leading cause of bridge failure in the United States.

**Innovation:** An in situ scour-testing device designed to determine the erodibility of fine-grained, cohesive soils.

**Activities Funded:** Final development of the in situ scour-testing device systems and 20 demonstration showcases.

**Further Information:**

<https://highways.dot.gov/laboratories/hydraulics-research-laboratory/hydraulics-laboratory-zones>



### Composite Bridge Decking

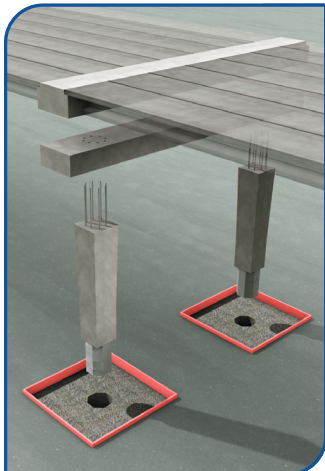
**Need:** Develop solid-surface, lightweight decks that can be used to alleviate weight restrictions on a bridge, rehabilitate historic bridges, and replace older light decks on bridges that cannot support concrete ones.

**Innovation:** Use of composite materials, such as fiber-reinforced polymer (FRP), because of their high strength-to-weight ratio and corrosion resistance.

**Activities Funded:** Refinement of the materials and fabrication methods used to produce an FRP composite bridge deck.

**Further Information:**

<https://www.fhwa.dot.gov/hfl/partnerships/bridgetech.cfm>



### Bridge Bent System

**Need:** Develop methods for making structurally robust, quick-to-assemble prefabricated bridge bents, also known as piers, suitable for accelerated bridge construction in regions with high seismic activity.

**Innovation:** Precast elements constructed with ductile detailing that permits the structure to deform during a seismic event rather than experience sudden failure. The connections are made with a small number of large-diameter reinforcing bars grouted into large-diameter ducts.

**Activities Funded:** Laboratory testing of column connections, development of design specifications, and first U.S. installation.

**Further Information:**

<https://www.fhwa.dot.gov/hfl/partnerships/bridgetech.cfm>

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