

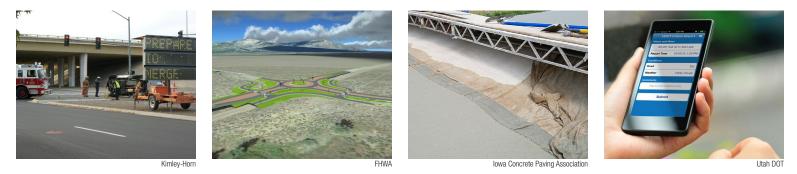




Every Day Counts: Innovation for a Nation on the Move

EDC-6 Progress Report #3 September 2022

Foreword



Every Day Counts (EDC) is the Federal Highway Administration's (FHWA's) program to advance a culture of innovation in the transportation community in partnership with public and private stakeholders. Through this State-based effort, FHWA coordinates rapid deployment of proven strategies and technologies to shorten the project delivery process, enhance roadway safety, reduce traffic congestion, and integrate automation.

This report summarizes the June 2022 status of deployment for the 7 innovations in the sixth round of EDC. The report is intended to be a resource for transportation stakeholders as they develop their deployment plans and to encourage innovation in managing highway project delivery to better serve the Nation.

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Recommended Citation: U.S. Department of Transportation, Federal Highway Administration Washington, DC: 2022 Every Day Counts: Innovation for a Nation on the Move EDC-6 Progress Report #3 <u>https://doi.org/10.21949/1521884</u>

Every Day Counts: Innovation for a Nation on the Move

The Federal Highway Administration (FHWA) created <u>Every Day Counts</u> (EDC) to accelerate the delivery of highway projects and foster an innovative culture in the transportation community. Through EDC's State-based model, FHWA collaborates with the <u>American Association of State Highway and Transportation Officials</u> (AASHTO) and other stakeholders to rapidly deploy proven but underused innovations to shorten the project delivery process, enhance roadway safety, reduce traffic congestion, and integrate automation. EDC provides transportation agencies with innovations that save time, money, and resources they can use to deliver more projects and better serve the traveling public.

Since its 2009 launch, EDC has had a significant positive impact on the transportation community's adoption of new technologies and processes. Every State has advanced at least 20 EDC innovations, and some have deployed more than 45. Many of these technologies and processes are now mainstream practices across the country. The 2015 Fixing <u>America's Surface Transportation Act</u> directed FHWA to continue working with stakeholders to advance innovation adoption through EDC.



Every 2 years, FHWA works with State transportation departments, local governments, tribes, industry, and other stakeholders to identify a new set of innovative technologies and practices that merit accelerated deployment through EDC. When choosing innovations, stakeholders consider market readiness, impacts, benefits, and ease of adoption. <u>EDC round six</u> (EDC-6), which promotes the adoption of seven innovations in 2021 and 2022, builds on the successful deployment efforts of earlier EDC rounds.

After selecting innovations for each EDC deployment cycle, transportation leaders gather at a summit to discuss the innovations in detail and identify opportunities to implement those that meet the unique needs of their State and local programs. Following the summit, <u>State Transportation Innovation Councils</u> (STICs) finalize their innovation selections and establish implementation performance goals for the 2-year cycle. STICs provide forums for transportation stakeholders to consider innovations FHWA recommends, along with technologies and practices from sources such as the AASHTO <u>Innovation Initiative</u> and the <u>second Strategic Highway Research Program</u>, and adopt those that add value to their highway programs.

FHWA forms deployment teams for the EDC innovations to assist States in their implementation efforts. Using feedback from stakeholders, the teams offer technical assistance, training, and outreach to help the transportation community adopt innovations and make them standard practice. FWHA also offers assistance through its <u>STIC Incentive</u> and <u>Accelerated Innovation Deployment (AID) Demonstration</u> programs to encourage and provide incentives for innovation deployment. The STIC Incentive program provides up to \$100,000 a year per STIC to help institutionalize innovations. The AID Demonstration program provides an incentive of up to \$1 million to support the cost of deploying an innovation on any phase of a highway project. The program allocates up to \$10 million per year in incentive funds.

Throughout each EDC deployment cycle, FHWA reports regularly on innovation deployment status in each State and aggregates the data to provide a nationwide overview. FHWA also works with stakeholders to share success stories, specifications, best practices, lessons learned, and data through case studies, web conferences, presentations, and demonstration projects. The result is rapid technology transfer and accelerated deployment of innovation across the Nation.

EDC-6 Innovation Implementation

Every 6 months, FHWA compiles a report on the status of the state of practice for the current round of EDC innovations. This section provides details on the seven innovations FHWA is encouraging States to adopt during EDC-6. It includes maps and charts that show the progress made in advancing the technologies and practices by the end of June 2022. The maps illustrate the innovation implementation stage in each State. The charts show the number of States that have demonstrated, assessed, or institutionalized the innovation, as well as the January 2021 baseline data and December 2022 goals set by States.

This report uses "State" as a general term that includes the State transportation department, metropolitan planning organizations, local governments, tribes, private industry, and other stakeholders in a State or territory. Information is provided for the 50 States, Washington, DC, Puerto Rico, the U.S. Virgin Islands, and Federal Lands Highway, a total of 54 entities, each represented by a STIC.

The following table defines the innovation deployment stages displayed on the maps and charts.

Innovation Implementation Stages



Attainment of Demonstration, Assessment, or Institutionalized Implementation Across All Innovations and State

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Not Implemented	The State has not started planning to implement the innovation.
Development Stage	The State is developing an implementation process and building support by participating in webinars and peer exchanges, and collecting guidance and best practices.
Demonstration Stage	The State is testing/piloting the innovation.
Assessment Stage	The State is assessing the performance of the innovation and adjusting any processes for full deployment.
Institutionalized	The state has adopted the innovation as a standard practice and uses it regularly on projects.

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Crowdsourcing for Advancing Operations

Transportation systems management and operations programs strive to mitigate traffic congestion from special events, adverse weather, traffic incidents, and work zones. These programs require real-time, high-quality, wide-ranging roadway information. However, gaps in geographic coverage, lags in information timeliness, and equipment costs can limit their ability to operate proactively.

<u>Crowdsourcing for advancing operations</u> integrates crowdsourced data from multiple streams to help overcome the limits of traditional monitoring systems. Common sources include social media platforms, third-party data providers, and specially developed mobile apps. The data includes speed, travel time, incident type, travel behavior, vehicular operation, and more.

Because crowdsourced data are obtained whenever and wherever people travel, agencies can capture in real time what happens between sensors, in rural regions, along arterials, and beyond jurisdictional boundaries. Traffic management centers (TMCs) can often access crowdsourced data with minimal or no time lags. Complementing crowdsourced data with data integration tools helps TMC operators proactively manage emerging events.

Nine States are developing implementation plans and learning more about Crowdsourcing for Advancing Operations. Twenty-six States are demonstrating and assessing crowdsourcing while another eleven States have institutionalized Crowdsourcing for Advancing Operations.

Current (June 2022) WA ΜТ ND MN OR SD ID WY PA IA OH NF DE IN NV н мΠ wv со CA мо ĸγ ĸs NC н ΤN οк AR AZ NM **Detailed data** GA AL MS representing each State's LA тх progress is Federal Lands Highway available in the FL Puerto Rico appendix. **US Virgin Islands** Washington DC Attainment of Demonstration, Assessment, or Institutionalized Implementation Across All States Institutionalized Goal Assessment Progress 42 36 37 Demonstration 32 30 Development Not Implemented Baseline PR #1 PR #2 PR #3 Final (Jan 2021) (Jun 2021) (Dec 2021) (Jun 2022) (Dec 2022) View Innovation Spotlight video.

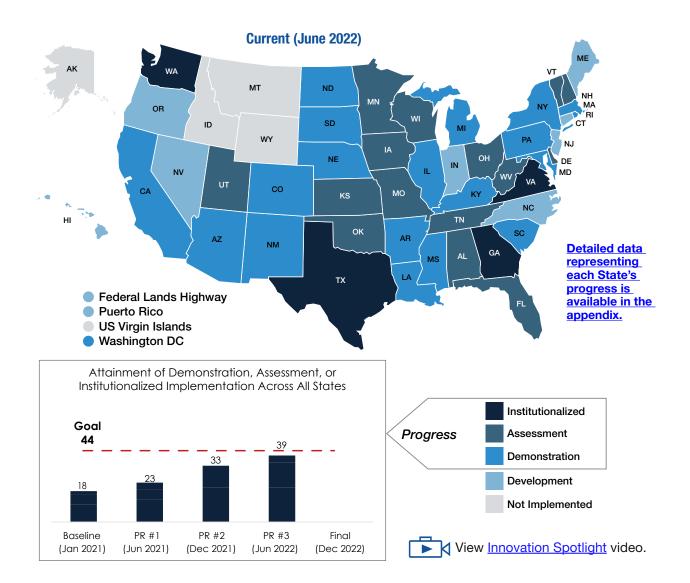
e-Ticketing and Digital As-Builts

Transportation agencies are revamping traditional paper-based processes for highway construction projects by integrating them into electronic and digital workflows. Electronic ticketing (e-Ticketing) improves the tracking, exchange, and archiving of materials tickets. Digital information, such as 3D design models and other metadata, can enhance the value of contract documents and the future usability of the as-built plans. <u>e-Ticketing and digital as-builts</u> can increase project safety and quality through efficient data gathering and sharing.

e-Ticketing

e-Ticketing provides an electronic means to produce, transmit, and share materials data and track and verify materials deliveries. This streamlines inspections and improves contract administration processing. Using electronic ticket exchanges enables access via mobile devices and simplifies integration of material data into construction management systems.

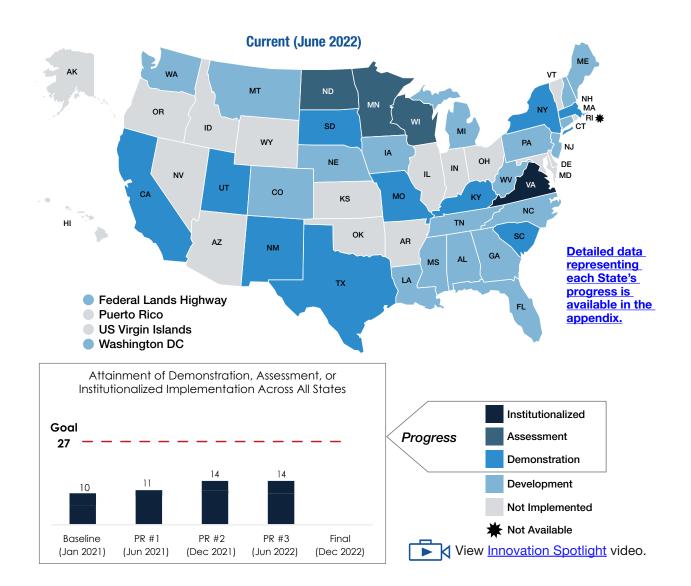
Ten States are developing implementation plans and learning more about e-Ticketing. Thirty-five States are demonstrating and assessing the electronic ticket process. Four States have institutionalized e-Ticketing.



Digital As-Builts

Using digital data such as 3D models to build road projects streamlines project delivery and contract administration. The digital information is further leveraged when the model is updated to reflect the project's as-built condition for future maintenance, asset management, and rehabilitation activities.

Twenty-one States are developing implementation plans and learning more about Digital As-Builts. Thirteen States are demonstrating and assessing the use of digital data. One State has institutionalized Digital As-Builts.



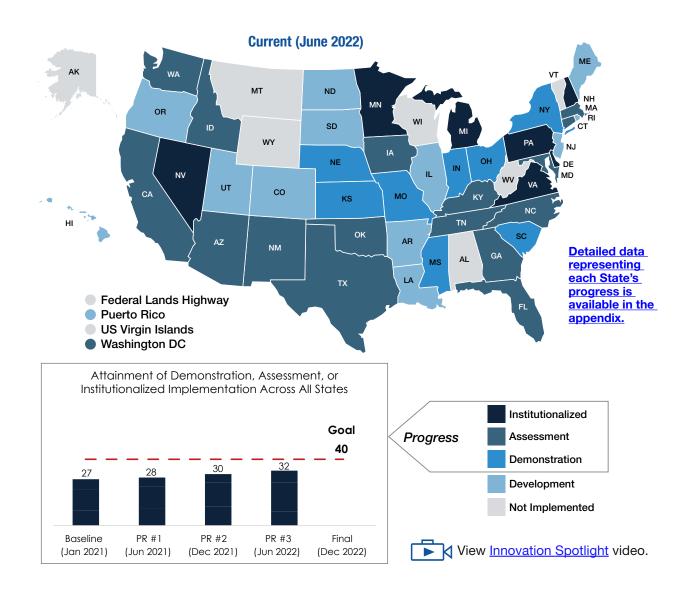
Next-Generation TIM: Integrating Technology, Data, and Training

Millions of traffic incidents occur each year in the United States that place responders and motorists at a high risk of secondary crashes. These roadway incidents also cause congestion that negatively impacts the economy and the public's quality of life. Traffic incident management (TIM) methods for planning and coordinating response effectively reduce the dangers created by incidents and mitigate their impacts.

While TIM efforts have traditionally focused on high-speed roadways, <u>Next-Generation TIM</u> (NextGen TIM) is working with State, local, and Tribal partners to improve TIM on all roadways by integrating proven, yet underutilized, technology, data, and training strategies.

NextGen TIM is promoting technologies such as unmanned systems for traffic crash scene mapping and connected vehicle technology for supporting responder-to-vehicle (R2V) alerts. NextGen TIM data and training strategies include advancing the collection, analysis, and use of incident data to understand strategy and program effectiveness and promoting new training content and innovative delivery approaches.

Thirteen States are developing implementation plans and learning more about NextGen TIM. Twenty-five States are demonstrating and assessing traffic incident management methods. Seven States have institutionalized NextGen TIM.



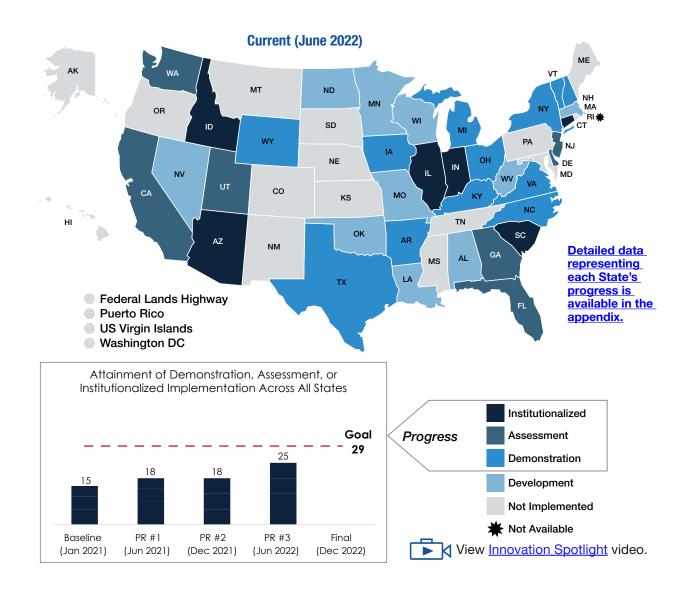
Strategic Workforce Development

The demand for highway workers is growing, and emerging technologies will require these workers to have new skills. According to a 2018 survey by the Associated General Contractors of America, 80 percent of construction firms reported difficulty finding qualified workers.

To attract and retain workers in the contractor workforce, <u>strategic workforce development</u> is promoting resources to help agencies and organizations nationwide compete with other industries and demonstrate the value of a career in transportation.

The resources are based on a 2-year pilot that explored how industry representatives could work collaboratively with the public workforce system to improve their ability to recruit, train, and retain highway construction workers. They include a playbook called Identify, Train, Place, which condenses the pilot's lessons learned into simple strategies others can use, and a comprehensive outreach campaign called Roads To Your Future, which includes free messaging and marketing materials.

Ten States are developing implementation plans and learning more about Strategic Workforce Development. Eighteen States are demonstrating and assessing strategic workforce resources. Six States have institutionalized Strategic Workforce Development as the way to promote career opportunities in transportation.



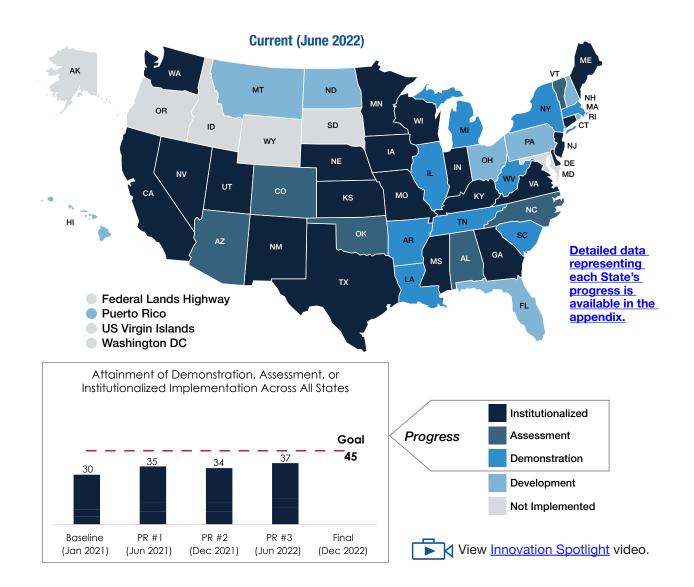
Targeted Overlay Pavement Solutions (TOPS)

About half of all infrastructure dollars are invested in pavements, and more than half of that investment is in overlays. <u>Targeted overlay pavement solutions (TOPS)</u> enhance overlay performance, helping agencies maximize their investment and ensure safer, longer-lasting roadways for the traveling public.

Many of the pavements in the Nation's highway system have reached or are approaching the end of their design life. These roadways carry daily traffic that often far exceeds their initial design criteria. Overlays are now available for both asphalt and concrete pavements that will provide long-life performance under a wide range of traffic, environmental, and existing pavement conditions.

Concrete overlays can benefit from performance-engineered mixtures, including thinner-bonded and unbonded overlays with fiber reinforcement, interlayer materials, and new design procedures that improve durability and performance. Asphalt overlay mixtures have also advanced significantly with the use of stone-matrix asphalt, polymer-modified asphalt, and other materials and agents that reduce rutting, increase cracking resistance, and extend pavement life.

Nine States are developing implementation plans and learning more about TOPS. Sixteen States are demonstrating and assessing TOPs. Twenty-one States have institutionalized Targeted Overlay Pavement Solutions.



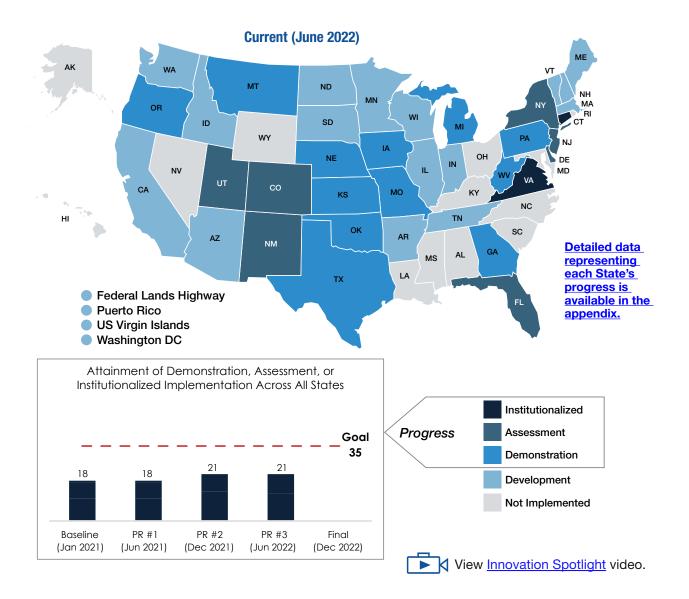
UHPC for Bridge Preservation and Repair

Ultra-high performance concrete (UHPC) is a new material for bridge construction that has become popular for field-cast connections between prefabricated bridge elements. <u>UHPC for bridge preservation and repair</u> is a new application of UHPC that offers enhanced performance and improved life-cycle cost over traditional methods.

Because of its strength and durability, UHPC can be used in situations that normally use conventional concrete or repair mortars, and in some cases those that use structural steel.

Additionally, UHPC repairs are long lasting and resilient, requiring less maintenance and fewer follow-up repairs than conventional methods. Some applications, such as bridge deck overlays and replacing expansion joints with UHPC link slabs, can extend the service life of bridges well beyond that of traditional repair strategies and are more cost-efficient than bridge replacement.

Twenty States are developing implementation plans and learning more about UHPC for bridge preservation and repair. Nineteen States are demonstrating and assessing UHPC. Two States have institutionalized this application of UHPC.



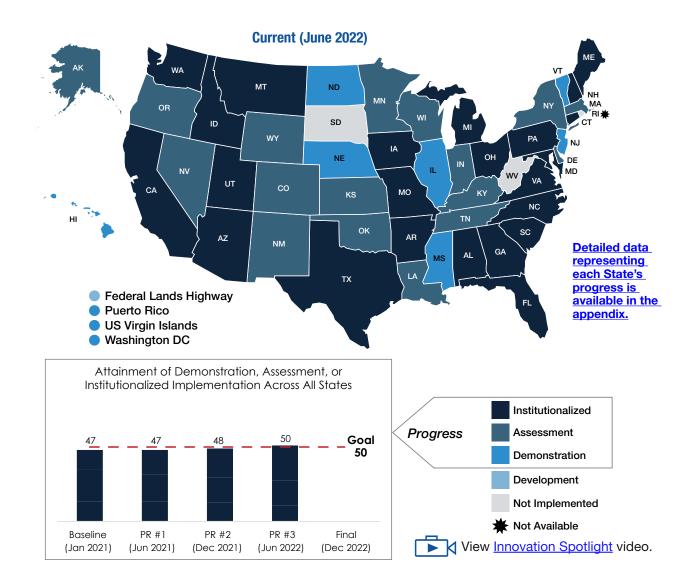
Virtual Public Involvement (VPI)

Involving the public in transportation planning and project development can help agencies accelerate project delivery by identifying concerns early in the decision-making process. <u>Virtual public involvement (VPI)</u> strategies enhance agencies' efforts to engage the public by supplementing traditional processes such as face-to-face meetings with digital technology.

Virtual tools and strategies, such as mobile applications, project visualizations, do-it-yourself videos, crowdsourcing tools, virtual town halls, mapping tools, and all-in-one tools, make public involvement more accessible. These approaches offer convenient, low-cost methods to inform the public, encourage participation, illustrate projects and plans, and get feedback.

Virtual public involvement can aid in establishing a common vision for transportation and ensure the opinions and needs of the public are understood and considered during planning and project development. Virtual tools can also engage wider, more diverse audiences more efficiently and address barriers to public participation such as potential participants' busy schedules.

One State is developing an implementation plan and learning more about Virtual Public Involvement. Twenty-seven States are demonstrating and assessing virtual tools and strategies. Twenty-three States have institutionalized VPI.



STIC Incentive Projects awarded in FY21 & FY22 to support EDC Innovation Deployment

Crowdsourcing for Advancing Operations — EDC-6

STATE / Applicant	INNOVATION	PROJECT DESCRIPTION	FUNDS Allocated
New Jersey	Crowdsourcing	Establish a pilot program for enhanced crowdsourcing for operations in New Jersey	\$55,000
Rhode Island	Crowdsourcing	Develop crowdsourced data workflow and integrate into standard procedures	\$50,000
North Carolina	Crowdsourcing, TIM	Automate full road closure information into the Waze crowdsourcing navigation app	\$60,000
Indiana	Crowdsourcing, Weather	Upgrade web-based Winter Operations Dashboard using enhanced probe data	\$100,000
Kentucky	Crowdsourcing, work zone	Develop and deploy Work Zone Data Exchange (WxDx) feed	\$100,000
North Carolina	Operations, emergency, crowdsourcing	Implement emergency alerting service, direct message to cell phones.	\$50,000
Indiana	Crowdsourcing	Apply origin-destination data patterns in Freeway Weaving Areas	\$100,000

e-Ticketing and Digital As-Builts — EDC-6

STATE / APPLICANT	INNOVATION	PROJECT DESCRIPTION	FUNDS Allocated
Utah	Data	Create a comprehensive listing of all data sets that UDOT uses for easy reference	\$50,000
Maine	Digital As-Builts	Migrate CADD Software to Produce 3D Models for Digital As-Builts	\$100,000
Utah	Digital As-Builts	Develop a standardized QC/QA plan for 3D Digital Models	\$50,000
lowa	Digital As-Builts	Develop Digital As-Builts into BIM pilot project	\$40,000
Connecticut	Digital As-Builts	Use project 3D Model for digital as-builts and asset management	\$85,000
Wyoming	e-Construction	Develop Digital Contractor Prequalification, Bidding Requests and Performance System	\$50,000
Wyoming	e-Construction, cost estimating	Improve Parametric Estimating Process	\$50,000
Nebraska	e-Construction, Digtal As-builts	Standardize the City of Lincoln's Integrated eConstruction to automate the delivery of infrastructure projects	\$79,920
Delaware	e-Ticketing	Develop an e-Ticketing program to assist with the administration and documentation of materials data	\$7,704
lowa	e-Ticketing	Implement e-ticketing in rural areas	\$8,000
Rhode Island	e-Ticketing	Implement an e-Ticketing Program	\$50,000
California	Digital As-Builts	Advance the statewide deployment and implementation of Digital As-Builts	\$44,800
Maryland	Stormwater, Digital As-Builts	Develop a Storm Water Management (SWM) Electronic Data Portal and Maintenance Application	\$100,000
Louisiana	e-Ticketing	Pilot the use of electronic haul tickets (e-ticketing) for asphalt and concrete material deliveries.	\$50,000
New Hampshire	eConstruction, DAB, UAS	Expand digital inspection efforts using GNSS rovers and unmanned aircraft systems with LiDAR technology.	\$100,000
Maine	e-ticketing	Implementation of e-Ticketing at MaineDOT	\$16,000
Vermont	eTicketing	Implement an e-Ticketing solution	\$36,800
North Dakota	e-ticketing	Implement a vendor agnostic e-Ticketing portal	\$8,000
Maryland	e-ticketing	Implement e-Ticketing in Maryland	\$100,000

STATE / APPLICANT	INNOVATION	PROJECT DESCRIPTION	FUNDS Allocated
Maine	water management, digital as builts	Develop a Groundwater Quality Management System with a geo-refencing mapping system	\$60,000
California	Digital As-Builts	Implement Project Delivery Quality Reviews for Virtual Design and Construction	\$40,000
Oklahoma	Survey, 3D Modeling, Digital As-Builts	Expand utility surveying capabilities and implement consistent process for field data collection to incorporate into statewide GIS database.	\$50,000
Georgia	Digital As-Builts, 3D Modeling	Develop a Roadmap for Digital Delivery Implementation	\$100,000
lowa	Digital Delivery, Digital As-Builts	Hold a Peer Exchange with AGC and ACEC for Bridge Digital Delivery	\$36,000
Nebraska	e-ticketing	Implement Materials-Truck Identification to Enhance e-Ticketing	\$15,000

Next-Generation TIM: Integrating Technology, Data, and Training — EDC-6

STATE / Applicant	INNOVATION	PROJECT DESCRIPTION	FUNDS Allocated
Arizona	TIM	Deploy Next Gen TIM Video Sharing for Responder Truck Mounted CCTV Camera	\$20,000
Colorado	TIM	Develop TIM Training Modules for Tabletop and After Action Review	\$90,000
Virginia	TIM	Evaluate tools to deploy an emergency and maintenance vehicle alert system	\$75,000
Puerto Rico	ТІМ	Improve traffic incident management capabilities and traveler information dissemination	\$12,000
Texas	ТІМ	Develop a process that transmits select CAD data (location, timestamps) to the Fort Worth TransVision TMC	\$100,000
North Carolina	Crowdsourcing, TIM	Automate full road closure information into the Waze crowdsourcing navigation app	\$60,000
Illinois	UAS, TIM	Expand use of UAS for Traffic Incident Management Statewide.	\$80,000

Strategic Workforce Development — EDC-6

STATE / Applicant	INNOVATION	PROJECT DESCRIPTION	FUNDS Allocated
Arkansas	Workforce	Pilot an Arkansas Department of Transportation Maintenance Training Academy (MTA)	\$100,000
Idaho	Workforce	Implement Idaho Career Opportunities-Next in Construction Program (ICONIC) in Southeast Idaho	\$100,000
Alabama	Workforce	Pilot an Innovative On-Road Equipment Operations Training Program	\$82,900
New York	Workforce	Share Transportation Industry Career Pathways with Students in Central New York	\$100,000
Connecticut	Workforce	Develop comprehensive and intuitive video instructions for the Compass operational processes	\$15,000
Massachusetts	Workforce	Implement Electric Vehicle Technician Pre-Apprentice Program	\$12,500
North Carolina	Strategic Workforce Development	Create a Ladders of Opportunity plan to Advance NCDOT's Diverse Engineering Workforce	\$50,000
Idaho	SWD	Expand the Idaho Career Opportunities-Next in Construction Program (ICONIC)	\$75,000
Oklahoma	SWD	Develop a Pre-Apprenticeship Stakeholder-Focused Training Program	\$50,000
Massachusetts	SWD	Pilot a Massachusetts Construction Industries (MCI) Workforce Development Program	\$100,000
Texas	SWD	Develop Workforce Development Lifecycle for Road and Bridge Agencies	\$100,000

Targeted Overlay Pavement Solutions (TOPS) — EDC-6

STATE / Applicant	INNOVATION	PROJECT DESCRIPTION	FUNDS ALLOCATED
lowa	TOPS	Develop a guidebook for the application of Polymer-modified Asphalt Overlays	\$32,000
North Dakota	TOPS	Employ Targeted Overlay Pavement Solutions (TOPS) asphalt performance testing equipment	\$100,000
North Dakota	Pavement, TOP	Pilot the use of an asphalt extractor to analyze the properties of Recycled Asphalt Pavements (RAP)	\$84,000
Rhode Island	TOPS	Implement a Crack Attenuating Mix Trial and Comparison	\$100,000

Virtual Public Involvement (VPI) — EDC-6

STATE / Applicant	INNOVATION	PROJECT DESCRIPTION	FUNDS ALLOCATED
Michigan	VPI	Analyze the demographics of VPI pilot projects and identify improvements needed to maximize the efficiency and effectiveness of public outreach	\$46,400
Tennessee	VPI	Implement Virtual Public Involvement (VPI) practices	\$100,000
Arizona	VPI	Implement a Stakeholder Management System to be used for all studies, projects and other efforts requiring public and stakeholder coordination and outreach.	\$82,640

Ultra-High Performance Concrete — EDC-6

STATE / APPLICANT	INNOVATION	PROJECT DESCRIPTION	FUNDS ALLOCATED
lowa	UHPC	Hold a Peer Exchange on UHPC with a focus on link-slab and beam end repair techniques	\$20,000
Missouri	UHPC	Complete a UHPC Demonstration Project to extend useful life of existing bridge no. R0507 (Part 1)	\$90,000
Oregon	UHPC	Demonstrate UHPC as a structural overlay on the Willow Creek Bridge	\$100,000
Missouri	UHPC	Complete a UHPC Demonstration Project to extend useful life of existing bridge no. R0507 (Part 2)	\$40,000
South Carolina	UHPC	Develop Standard Details and Specifications for repairing section loss on Steel Multi-Beam/Girder Bridges and deliver training on UHPC repairs	\$100,000

EDC Innovations from previous rounds

STATE / APPLICANT	INNOVATION	PROJECT DESCRIPTION	FUNDS ALLOCATED
Alabama	Geotech (A-GaME)	Implement Measurement with Drilling (MWD)	\$17,000
Mississippi	Geotech (A-GaMe)	Implement into standard practice the use of Cone Penetration Testing (CPT) and Measurement While Drilling (MWD) technologies	\$100,000
Puerto Rico	Geotech (A-GaME)	Update the Guidelines for Geotechnical Site Investigations to include A-Game innovation deployment guidance (Phase II)	\$60,000
New Mexico	Geotech, Structures	Implement Smart Pile technology	\$64,700
Louisiana	UAS	Implement UAS Program, including procedures and manuals	\$50,000
Ohio	UAS	Implement Beyond Vision Line of Sight UAS Operations	\$34,000
Alaska	UAS, Emergency Response	Develop an Avalanche Mitigation, Documentation, and Emergency Response Program using UAS	\$100,000
Arizona	Weather	Deploy Mobile Roadway Condition Detectors for ADOT's Snow & Ice Program	\$80,000
Washington	Weather	Implement and evaluate the Extendable Front Snow Plow	\$53,500
Oklahoma	Weather	Develop and Demonstrate Wireless Sensor for Detection of Black Ice	\$40,000
Kansas	STEP	Implement STEP Countermeasures and create guides for installing semi- permanent STEP countermeasures at existing crosswalks	\$15,962
Delaware	Reducing Rural Roadway Departures	Implement dynamic chevron warning system program	\$46,422
Massachusetts	Reducing Rural Roadway Departures	Implement digital radar speed signs along Rural Roadway Departure locations	\$50,000
Pennsylvania	ATSPMs	Implement an Automated Traffic Signal Performance Measures (ATSPMs) Pilot	\$60,000
Montana	ATSPM	Develop systems engineering documentation and RFP for an ATSPM system	\$100,000
Delaware	STEP, Lighting	Deploy design tools and training to implement DelDOT Lighting Policy	\$17,200
Tennessee	STEP, Road Diet	Implement Road Diet best practices and develop a Road Diet Guide	\$100,000
California	Complete Streets, STEP	Develop a standardized process for the delivery of in-house Quick-Build active transportation improvements (Part 2)	\$24,800
Missouri	STEP	Hold Safe Streets Workshops	\$60,000
Massachusetts	CHANGE	Implement a 2D and 3D Hydraulic Modeling Program	\$28,600
California	STEP	Develop a standardized process for the delivery of in-house Quick-Build active transportation improvements	\$55,200
Alabama	e-Construction	Implement an Electronic Construction Manual (Phase 2)	\$100,000
Wisconsin	e-Construction	Develop and evaluate Construction/Field Data Collection business requirements	\$100,000
Illinois	pavement, HFST	Deploy a Pavement Texture Scanner and train staff on operation.	\$16,000
New Mexico	UAS	Implement Automated Bridge Inspection Practice Via Unmanned Aerial Vehicle	\$28,000
Ohio	UAS	Develop UAS Incident Reconstruction Training (Tiffin University Drone Academy)	\$99,850
Colorado	CHANGE	Implement the 2D Quick Check Statewide Initiative (Phase 2)	\$82,500
Colorado	UAS	Expand UAS Program and develop standard/specifications.	\$37,500
Virginia	Workzone, Operations	Pilot the use of Automated Flagger Assistant Devices (AFAD) throughout the state.	\$75,000
ldaho	NEPA, wetland	Assist the Local Highway Technical Assistance Council (LHTAC) with advance wetland mitigation for the Bia Ogwa Bear River Massacre Site Battle Creek Restoration Project .	\$63,360
Oregon	Structures, A-GAME	Assess and summarize findings of using instrumented Becker Penetration Testing in Gravely Soils for Liquefaction Assessment.	\$100,000

Other Innovations

STATE / Applicant	INNOVATION	PROJECT DESCRIPTION	FUNDS ALLOCATED
Colorado	Innovation Exchange	Support the Adoption of Innovative Ideas from CDOT's Lean Everyday Ideas (LEI)	\$10,000
Delaware	Parklet, Air Quality	Implement a Parklet Pilot Program	\$45,874
District of Columbia	Design, Multimodal, Pedestrian	Implement Multimodal Street Design Software	\$91,140
Florida	Air Quality	Build a Crowdsourced Air Quality Monitoring Network	\$15,085
Georgia	Contracting	Implement a Contracts Management Software (CMS) Solution	\$100,000
Illinois	Vehicle Measuring	Implement 3D Vehicle Classification and Measurement System	\$100,000
Kansas	Safety Data	Evaluate traffic crash data systems for modernization opportunities	\$84,038
Michigan	Emergency Response, LPA	Develop a Local Agency Emergency Response Playbook	\$53,600
Missouri	Workforce Training	Implement accessible online training opportunities using Closed Captioning	\$10,000
New Hampshire	Hydaulics, Stormwater	Implement Culvert Outlet Diffuser	\$20,000
North Carolina	Knowledge Management	Develop job tools to improve organizational knowledge transfer	\$40,000
Ohio	Pedestrian, MOT	Implement Precast Raised Crosswalk (City of Cincinnati, on behalf of Westwood Community Urban Redevelopment Corporation)	\$34,000
Ohio	Signal	Pilot Hyperflow tool for Signal Performance Assessment and Retiming (Franklin County Engineers Office)	\$32,000
Oklahoma	Structures	Demonstrate Two-Coat Deck Seal System	\$60,000
Pennsylvania	Structures	Develop design procedures and design tools for Bridge Deck Link Slabs	\$40,000
Vermont	Structures	Analyze the performance of Vermont's bare bridge decks through non- destructive testing	\$100,000
Virginia	Structures	Expand use of laser ablation coating removal statewide	\$25,000
Washington	Operations, Weather, Traffic	Implement sensors along local roadway for data collection, condition assessment, and V2X Applications	\$46,500
Wisconsin	Utilities	Develop specific Local Public Agency utility accommodation practices, tools, and procedures	\$100,000
New Hampshire	Hydaulics, stormwater	Implement Culvert Outlet Diffuser	\$10,000
Washington	GPR, pavement	Implement the use of Ground Penetrating Radar Rolling Density Meter for Bridge Density Measurements	\$12,000

STATE / Applicant	INNOVATION	PROJECT DESCRIPTION	FUNDS ALLOCATED	
Washington	Pavement	Hold Hot Mixed Asphalt Peer Exchange	\$24,000	
Washington	Pavement	Implement the use of Laser Scanners for Chip Seal Embedment Measurement	\$36,500	
Kansas	Signal	Conduct a pilot of the Hyperflow tool in the City of Olathe to provide an online dashboard for system-wide signalized corridor performance assessment using connected vehicle data	\$52,000	
lowa	Signal	Pilot Hyperflow in the City of Dubuque for Signal Performance Assessment	\$64,000	
New Mexico	pavement, GPR	Implement a back calculation algorithm to Analyze GPR Signals	\$72,000	
Nebraska	Signal	Pilot Hyperflow in the City of Lincoln for Signal Performance Assessment	\$80,000	
Kansas	ATMS, AI, CV data	Pilot the deployment of a cloud-based AI engine for roadway intelligence.	\$39,999	
Minnesota	Signal, red light running	Develop and demonstrate a Red Light Running Warning System	\$100,000	
Michigan	Noise, Peer Exchange	Hold a Noise Abatement Peer Exchange	\$20,020	
Washington	Safety, Lighting, Signal	Implement a Real-Time Visibility Detection System	\$28,984.77	
Delaware	Weather, flood monitoring	Implement a flood monitoring system	\$82,500	
Virginia	Bus Stop, Maintenance	Develop Technical Guidance and Best Practices for Monitoring and Reporting Bus Stop Condition	\$25,000	
Puerto Rico	Drilled Shaft, Structures	Hold a Drilled Shaft Workshop to review and update the special provisions.	\$19,000	
Pennsylvania	Materials, RFID	Implement the use of Radio-Frequency Identification (RFID) Tags	\$100,000	
Alaska	Operations, weather	Develop and implement an application to be used during maintenance of roadways to provide audible, real-time direction on maintenance routes to the operators.	\$100,000	
Vermont	Floodplain, resilience	Develop and hold hands-on training on how to use the Transportation Resilience Planning Tool.	\$63,200	
Federal Lands Highway	Electrification, peer exchange	Peer Exchange and Industry Challenge on emerging mobility and electrification solutions (NPS & State of Michigan)	\$100,000	
Michigan	Wrong Way Driving, Safety	Organize a Wrong Way Driving Peer Exchange	\$29,600	

Acronyms and Abbreviations

3D	three-dimensional
AASHTO	American Association of State Highway and Transportation Officials
ADOT	Arizona Department of Transportation
	Accelerated Innovation Deployment Demonstration
DOT	department of transportation
EDC	Every Day Counts
EDC-6	Every Day Counts round six
	electronic construction
e-Ticketing	electronic ticketing
FHWA	Federal Highway Administration
NextGen TIM	next-generation traffic incident management
STIC	State Transportation Innovation Council
	traffic incident management
TMC	traffic management center
TOPS	targeted overlay pavement solutions
UHPC	ultra-high performance concrete
VPI	virtual public involvement

More Information

See the <u>EDC-6 innovations</u> on the Center for Accelerating Innovation website for information and resources.

Contact <u>EDC-6 deployment teams</u> for information, technical assistance, and training.

Get innovation deployment assistance and incentives through the <u>STIC Incentive</u> and <u>AID</u> <u>Demonstration</u> programs.



View the Every Day Counts Round 6 Overview video.

If you would like to stay up to date on all EDC related news, please <u>subscribe</u> to <u>EDC News</u> and <u>Innovator</u>. These newsletters showcase successful deployments of EDC initiatives and other innovative topics in the highway industry.





Appendix

States	Crowdsourcing for Advancing Operations	e-Ticketing	Digital As- Builts	Next- Generation TIM	Strategic Workforce Development	Targeted Overlay Pavement Solutions (TOPS)	UHPC for Bridge Preservation and Repair	Virtual Public Involvement (VPI)
Alabama	Institutionalized	Assessment	Development	Not Implemented	Development	Assessment	Not Implemented	Institutionalized
Alaska	Development	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Assessment
Arizona	Demonstration	Demonstration	Not Implemented	Assessment	Institutionalized	Assessment	Development	Institutionalized
Arkansas	Demonstration	Demonstration	Not Implemented	Development	Demonstration	Demonstration	Development	Institutionalized
California	Institutionalized	Demonstration	Demonstration	Assessment	Assessment	Institutionalized	Development	Institutionalized
Colorado	Institutionalized	Demonstration	Development	Development	Not Implemented	Assessment	Assessment	Assessment
Connecticut	Institutionalized	Development	Development	Assessment	Institutionalized	Institutionalized	Institutionalized	Institutionalized
Delaware	Institutionalized	Assessment	Not Implemented	Institutionalized	Assessment	Institutionalized	Assessment	Assessment
Federal Lands Highway	Development	Development	Development	Not Implemented	Not Implemented	Not Implemented	Development	Development
Florida	Not Implemented	Assessment	Development	Assessment	Assessment	Development	Assessment	Institutionalized
Georgia	Institutionalized	Institutionalized	Development	Assessment	Assessment	Institutionalized	Demonstration	Institutionalized
Hawaii	Not Implemented	Development	Not Implemented	Development	Not Implemented	Development	Not Implemented	Demonstration
Idaho	Development	Not Implemented	Not Implemented	Assessment	Institutionalized	Not Implemented	Development	Institutionalized
Illinois	Demonstration	Demonstration	Not Implemented	Development	Institutionalized	Demonstration	Development	Demonstration
Indiana	Demonstration	Development	Not Implemented	Demonstration	Institutionalized	Institutionalized	Development	Assessment
lowa	Assessment	Assessment	Development	Assessment	Demonstration	Institutionalized	Demonstration	Institutionalized
Kansas	Development	Assessment	Not Implemented	Demonstration	Not Implemented	Institutionalized	Demonstration	Assessment
Kentucky	Institutionalized	Demonstration	Demonstration	Assessment	Demonstration	Institutionalized	Not Implemented	Assessment
Louisiana	Demonstration	Demonstration	Development	Development	Development	Demonstration	Not Implemented	Assessment
Maine	Development	Development	Development	Development	Not Implemented	Institutionalized	Development	Institutionalized
Maryland	Demonstration	Demonstration	Not Implemented	Assessment	Not Implemented	Not Implemented	Not Implemented	Institutionalized
Massachusetts	Demonstration	Demonstration	Demonstration	Assessment	Development	Demonstration	Development	Assessment
Michigan	Institutionalized	Demonstration	Development	Institutionalized	Demonstration	Demonstration	Demonstration	Institutionalized
Minnesota	Demonstration	Assessment	Assessment	Institutionalized	Development	Institutionalized	Development	Assessment
Mississippi	Not Implemented	Demonstration	Development	Demonstration	Not Implemented	Institutionalized	Not Implemented	Demonstration
Missouri	Assessment	Assessment	Demonstration	Demonstration	Development	Institutionalized	Demonstration	Institutionalized
Montana	Not Implemented	Not Implemented	Development	Not Implemented	Not Implemented	Development	Demonstration	Institutionalized

States	Crowdsourcing for Advancing Operations	e-Ticketing	Digital As- Builts	Next- Generation TIM	Strategic Workforce Development	Targeted Overlay Pavement Solutions (TOPS)	UHPC for Bridge Preservation and Repair	Virtual Public Involvement (VPI)
Nebraska	Not Implemented	Demonstration	Development	Demonstration	Not Implemented	Institutionalized	Demonstration	Demonstration
Nevada	Assessment	Development	Not Implemented	Institutionalized	Development	Institutionalized	Not Implemented	Assessment
New Hampshire	Demonstration	Assessment	Development	Institutionalized	Demonstration	Development	Development	Institutionalized
New Jersey	Institutionalized	Development	Development	Development	Assessment	Institutionalized	Assessment	Demonstration
New Mexico	Development	Demonstration	Demonstration	Assessment	Not Implemented	Institutionalized	Assessment	Assessment
New York	Demonstration	Demonstration	Demonstration	Demonstration	Demonstration	Demonstration	Assessment	Assessment
North Carolina	Assessment	Development	Development	Assessment	Demonstration	Assessment	Not Implemented	Institutionalized
North Dakota	Development	Demonstration	Assessment	Development	Development	Development	Development	Demonstration
Ohio	Assessment	Assessment	Not Implemented	Demonstration	Demonstration	Development	Not Implemented	Institutionalized
Oklahoma	Assessment	Assessment	Not Implemented	Assessment	Development	Assessment	Demonstration	Assessment
Oregon	Assessment	Development	Not Implemented	Development	Not Implemented	Not Implemented	Demonstration	Assessment
Pennsylvania	Institutionalized	Demonstration	Development	Institutionalized	Not Implemented	Development	Demonstration	Institutionalized
Puerto Rico	Assessment	Development	Not Implemented	Development	Not Implemented	Development	Development	Demonstration
Rhode Island	Demonstration	Demonstration	Not Available	Development	Not Available	Development	Not Implemented	Not Available
South Carolina	Assessment	Demonstration	Demonstration	Demonstration	Institutionalized	Demonstration	Not Implemented	Institutionalized
South Dakota	Demonstration	Demonstration	Demonstration	Development	Not Implemented	Not Implemented	Development	Not Implemented
Tennessee	Assessment	Assessment	Development	Assessment	Not Implemented	Demonstration	Development	Assessment
Texas	Institutionalized	Institutionalized	Demonstration	Assessment	Demonstration	Institutionalized	Demonstration	Institutionalized
US Virgin Islands	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Development	Demonstration
Utah	Assessment	Assessment	Demonstration	Development	Assessment	Institutionalized	Assessment	Institutionalized
Vermont	Not Implemented	Assessment	Not Implemented	Not Implemented	Demonstration	Assessment	Development	Demonstration
Virginia	Demonstration	Institutionalized	Institutionalized	Institutionalized	Demonstration	Institutionalized	Institutionalized	Institutionalized
Washington	Demonstration	Institutionalized	Development	Assessment	Assessment	Institutionalized	Development	Institutionalized
Washington DC	Development	Demonstration	Development	Assessment	Not Implemented	Not Implemented	Development	Demonstration
West Virginia	Not Implemented	Assessment	Development	Not Implemented	Development	Demonstration	Demonstration	Not Implemented
Wisconsin	Development	Assessment	Assessment	Not Implemented	Development	Institutionalized	Development	Assessment
Wyoming	Assessment	Not Implemented	Not Implemented	Not Implemented	Demonstration	Not Implemented	Not Implemented	Assessment



