Every Day Counts:

Innovation for a Nation on the Move

EDC-6 Summit Summary and Baseline Report May 2021















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 describes the innovations FHWA is promoting in the program's sixth round and documents the Virtual Summit held in December 2020. Included are the deployment status of the innovations at the beginning of 2021 and the goals transportation stakeholders set to broaden their adoption by the end of 2022. 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.

Cover Images left to right: Alamo Area MPO, NAPA, FHWA, Getty Images, FHWA











VA New York State DOT FHWA University of Connecticut

"Innovation is at the heart of the transportation industry, and for 10 years now, Every Day Counts has been at the heart of the Federal Highway Administration's efforts to help save lives, save time, and save money. The seven innovations rolled out in EDC-6 continue that legacy."

Amy Lucero
FHWA Acting Chief Innovation Officer

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Acronyms and Abbreviations

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

"Most of this past year we've operated in unprecedented times as we've largely shifted to conducting our business virtually, but we've remained strategic in the continued operations of our systems. Collectively, we have proven that the transportation community is nimble in the wake of changing events and motivated to provide a transportation system that reacts to the public's needs for today and tomorrow."

Tom Everett, Executive Director, FHWA

Every Day Counts: Innovation for a Nation on the Move

2-Year

Cycle

The Federal Highway Administration (FHWA) created Every Day Counts (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 American Association of State Highway and Transportation Officials (AASHTO) and other stakeholders to rapidly deploy proven but underused innovations to shorten the project delivery process, enhance roadway safety, reduce traffic congestion, and improve environmental sustainability. 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 America's Surface Transportation Act 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 regional summits 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 summits, State Transportation Innovation Councils (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

"In lowa we have a mindset we call risk advantageous, as opposed to risk averse. All DOTs have responsibility to be good stewards of tax dollars, and all of us are, but we also have a duty to continue to find ways to keep people safe, to make their lives better through transportation, so we allow our teams to innovate and try to be risk advantageous."

Scott Marler, Director, Iowa DOT

"The sharing of ideas among State DOTs is probably more important now than ever as we try to innovate and streamline processes."

Tom Everett, Executive Director, FHWA

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 STIC Incentive and Accelerated Innovation Deployment (AID) Demonstration 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.

More Information

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

Visit the <u>EDC-6 Virtual Summit</u> website to access presentations, factsheets, videos, and more on the EDC-6 innovations, as well as a national STIC showcase. Content is available on-demand through December 2021.

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 Demonstration</u> programs.



EDC-6 Summits: A Virtual Introduction to a New Round of Innovations

Historically, each round of EDC launches with a series of regional face-to-face summits. However, the EDC-6 summit became the first to take place virtually. Held December 8–10, 2020, the summit's virtual format significantly increased participation compared to the in-person summits.

Participants represented a wide range of transportation specialists and leaders, including more than 270 local agencies and metropolitan planning organizations and over 300 industry and private sector associations. Attendees included more than 100 from academia, dozens from partner Federal agencies, and at least 1,184 innovators representing every State department of transportation, including the District of Columbia, Puerto Rico, U.S. Virgin Islands, and Guam.

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"The virtual summits had an amazing reach, creating an incredible community of innovators more than 3,000 strong." said Thomas Harman, director of FHWA's Center for Accelerating Innovation, which manages the EDC program. "The virtual format provided opportunities for innovation to set the stage for the next 2 years."

Summit presenters from Federal, State, and local agencies provided information and expertise on the seven innovations FHWA is promoting for rapid deployment in EDC-6. This began the process for STICs to review the innovations, choose those that fit their State and local agency needs, and develop plans to put the innovations into practice over the next 2 years. Each day focused on one aspect of the summit's "people, products, and processes" theme: people to increase engagement, products to save money, and processes to save time.

A new feature at this summit was the National STIC Network Showcase. The showcase featured 245 innovations in six categories developed and deployed by agencies throughout the country—examples of the expertise and ingenuity agencies are putting into action to save lives, time, and money.

"The seven initiatives in EDC-6 all bring with them great potential to help keep our transportation system moving and moving well," said Tom Everett, Executive Director of FHWA. "The 240-plus homegrown efforts in the STIC Innovation Showcase bring even wider opportunities to implement change and bring innovation into everything we do."

The EDC-6 Virtual Summit sessions, videos, and resource materials are available on demand from the virtual venue through December 2021. Register for access to learn more and watch presentations about the EDC-6 and STIC Network Showcase innovations.

FHWA/LabRoots

"It's important to reap the fruits of what you've accomplished ... innovations become standard practices that lead to more innovation."

John Halikowski, Director, Arizona Department of Transportation

EDC-6 Innovations

During the EDC-6 Virtual Summit, participants heard from and engaged with technical experts who described the benefits of the EDC-6 innovations and provided examples of how transportation agencies use them.

Crowdsourcing for Advancing Operations

Crowdsourced data can be obtained whenever and wherever people travel, allowing agencies to capture in real time what happens between sensors, in rural regions, along arterials, and beyond jurisdictional boundaries. Agencies at all levels can use crowdsourced data integrated from multiple streams to optimize roadway use for reduced congestion and increased safety and reliability.

e-Ticketing and Digital As-Builts

Converting paper-based materials ticketing systems and asbuilt plans into electronic (e-Ticketing) workflows and digital as-builts enhances the accessibility of highway project data. e-Ticketing improves the tracking, exchange, and archiving of materials tickets. Digital information, such as threedimensional (3D) design models, enhances the future usability of as-built plans for operations, maintenance, and asset management.

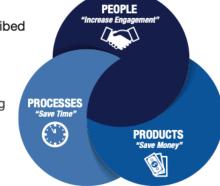
Next-Generation TIM: Integrating Technology, Data, and Training

Traffic incident management (TIM) programs aim to improve safety while shortening the duration and impact of roadway incidents. Next-generation TIM focuses on applying TIM at the local level, as well as collecting and using data to analyze strategy and program effectiveness, promoting new training content and methods, and leveraging several new TIM technologies.

Strategic Workforce Development

The demand for highway construction, maintenance, and operations workers is growing, while at the same time, emerging technologies require these workers to have new

skills. New resources and innovative strategies for identifying, training, and placing individuals in the contractors' workforce can help fill the construction jobs that support the Nation's highway system.



Targeted Overlay Pavement Solutions (TOPS)

Pavement overlays represent a significant portion of highway infrastructure dollars. State and local highway agencies can maximize this investment and help ensure safer, longer-lasting roadways by employing innovative overlay procedures that improve pavement performance, lessen traffic impacts, and reduce the cost of pavement ownership.

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. Bridge preservation and repair is an emerging and promising application for UHPC, which offers superior strength, durability, and improved life-cycle cost over traditional methods.

Virtual Public Involvement (VPI)

Public engagement during transportation project planning and development helps agencies identify issues and concerns early in the process, which can ultimately accelerate delivery. VPI strategies supplement traditional face-to-face information sharing with technology platforms that increase the ability to inform the public, receive feedback, and collect and consider comments.

Fostering a Culture of Innovation

The EDC-6 summits featured opening sessions in which transportation leaders discussed how they cultivate innovation in their agencies, leverage expertise, and share innovation successes.

John Halikowski, director of the Arizona Department of Transportation (ADOT), described the collaborative approach to innovation deployment used by Arizona's STIC: diverse membership, ongoing outreach, and a long-range perspective.

"Very often we forget as we work within systems how important the people are, from the perspective that we all have different viewpoints. So in the Arizona STIC, we try to leverage public agencies and private organizations to better evaluate innovation opportunities."

In addition to using local government liaisons and partnering with metropolitan planning organizations, universities, and research agencies, Arizona's STIC also works with advocacy groups and trade organizations that have a stake in the transportation system.

"Having a large group to interact with has given us a unique perspective to capitalize on our opportunities to advance innovation," said Halikowski.

He said ADOT also focuses on outreach, including innovation exchange days that bring together people who are positioned to give advice and select innovations that are a good fit for Arizona and provide both training and funding.

Scott Marler, director of the Iowa DOT, described the collaboration and outreach his agency uses to advance innovations such as traffic incident management and e-Construction.



FHWA/LabRoots

"We view traffic incident management, or TIM, as one of the best opportunities to bring all of our partners together," he said. We launched our statewide TIM committee in September 2016 to try to get everyone, urban or rural, focused on the idea of how we detect and respond to and clear traffic incidents throughout the entire State."

Marler said the committee helped capitalize on recommendations from EDC-4, which included roadway clearance times, incident clearance times, and secondary crash information. To advance e-Construction and e-Ticketing, he said lowa makes heavy use of pilot programs.

"In just one season alone, we've conducted 80 pilots for e-Ticketing so far, and this has been in the midst of struggling with the pandemic," said Marler. "Once the pilots are wrapping up, "The best way, the only way, to effectively deploy new products and services is in partnership with asset owners and everyone impacted by the product. Innovation is not just about product; it is very much about people."

Anne Ellis, Executive Director, Charles Pankow Foundation

it's imperative in our view to begin translating these technologies and innovations into the common languages that we all speak. In the case of our e-Ticketing pilots, we're beginning to develop construction specifications that will allow us to translate the new technology into the language of our contractor community."

"Advancing EDC innovations has always been a collaborative effort," said Marler. "The fact that we strive to work together for the benefit of lowa's public, regardless of jurisdiction served, has been a keystone in helping us to be innovative."

Anne Ellis, executive director of the Charles Pankow Foundation, offered her perspective on how to effectively deploy products in the transportation industry.

"The challenge first of all is knowing where those adventurous, innovation-ready people are, and once you find them, you have to support them through their product deployment journey to ensure their success," she said.

replacement, that product is going to look, feel, and behave differently. If you don't prepare in advance the people handling the product, they're going to claim foul, they're going to reject the product, and there goes your deployment," she said. "Innovation is very much about people."

On how to spread innovation success stories, Ellis said that these stories are best told through their impact. "It's really those

"Reflecting on my own experience with concrete, every time

chemical, a new type of aggregate, or a new type of cement

you introduce something new into concrete, whether it be a new

On how to spread innovation success stories, Ellis said that these stories are best told through their impact. "It's really those problems solved that are relatable, and that audience is often not technical," she said. "Looking at an innovation's impact on individuals can be really powerful in telling your story and helping ignite others to act, embrace, and become ambassadors for innovation."

Deployment Plans

After the EDC-6 Virtual Summit ended, participants met in State caucuses scheduled by their STICs to start planning which EDC-6 innovations to pursue over the next 2 years to meet their unique program needs. Participants relayed their recommendations to the STICs in each State for further discussion and development of performance goals and implementation plans to put the selected innovations into practice.

State implementation plans for the EDC-6 innovations show that interest in all seven technologies and practices is strong. Each State plans to explore at least one innovation, and many States are deploying multiple technologies and practices. Some innovations—including e-Ticketing and digital as-builts, UHPC for bridge preservation and repair, and virtual public involvement—are being advanced in 30 or more States during this EDC cycle.

EDC-6 Innovation Implementation

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 expected in advancing the technologies and practices in 2021 and 2022.

The baseline maps illustrate the state of practice in January 2021, and the goal maps indicate the implementation stage States plan to achieve by December 2022. The charts also compare January 2021 baseline data and December 2022 goals set by States.

Every 6 months, FHWA will compile a report on the status of the state of practice to track the progress of EDC-6 innovation implementation. With each progress report, the number of States in the advanced implementation stages will increase while the number of States in the initial stages will decrease as States carry out their deployment plans.

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

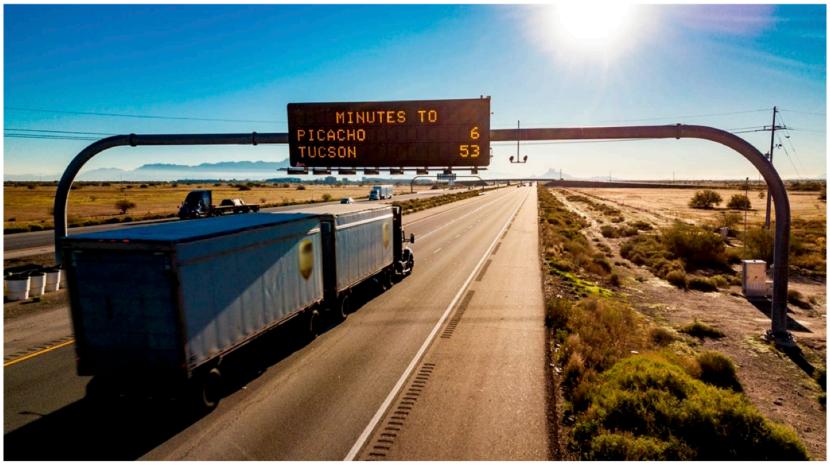
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Not Implementing	The State is not using the innovation anywhere in the State and is not interested in pursuing the innovation.
Development Stage	The State is collecting guidance and best practices, building support with partners and stakeholders, and developing an implementation process.
Demonstration Stage	The State is testing and piloting the innovation.
Assessment Stage	The State is assessing the performance of and process for carrying out the innovation and making adjustments to prepare for full deployment.
Institutionalized	The State has adopted the innovation as a standard process or practice and uses it regularly on projects.

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.

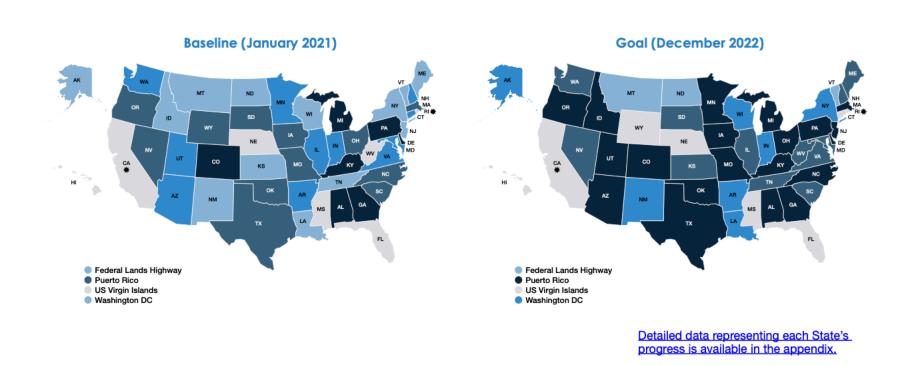
Because crowdsourced data are obtained whenever and wherever people travel, agencies can capture in real time what happens between sensors, in rural regions, along arterials, and beyond jurisdictional boundaries. Traffic management centers (TMCs) can often access crowdsourced data with minimal or no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

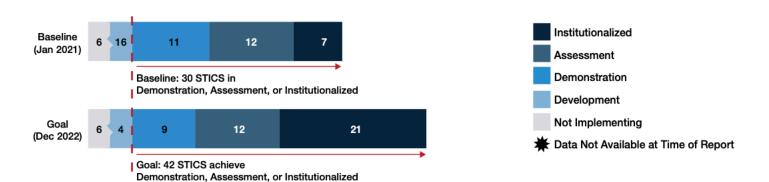


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Crowdsourcing for Advancing Operations

The number of States attaining the demonstration, assessment, or institutionalized stages of crowdsourcing to advance operations is expected to grow from 30 to 42.



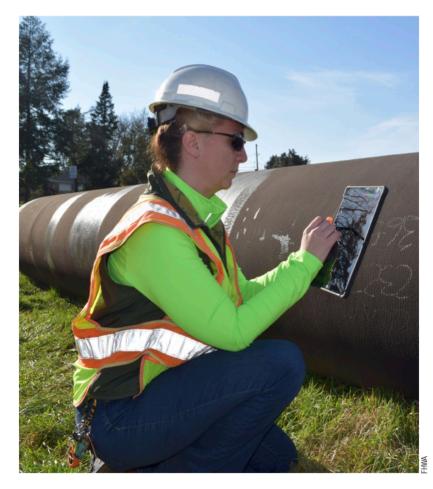


e-Ticketing and Digital As-Builts

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. e-Ticketing and digital as-builts can increase project safety and quality through efficient data gathering and sharing.

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.

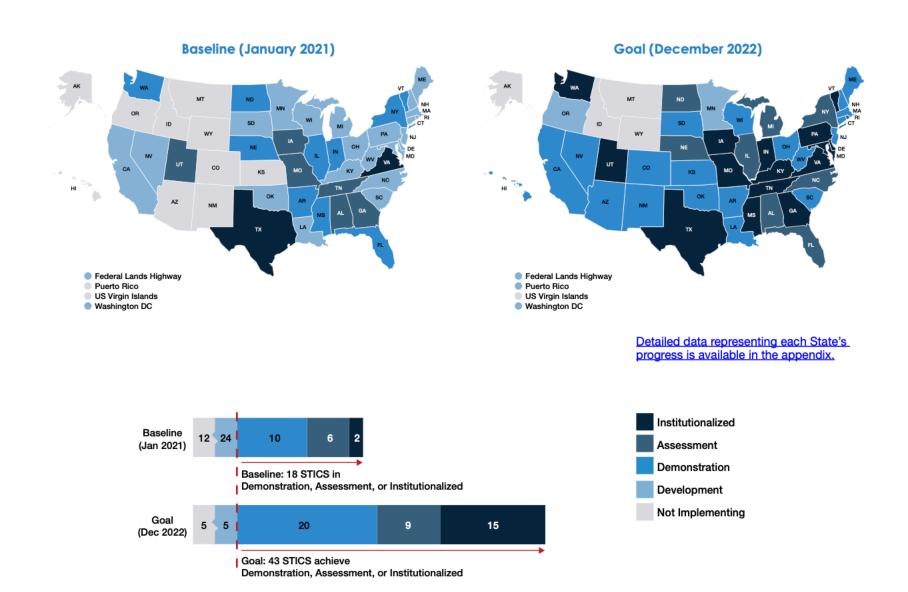
Using digital data such as 3D models to build road projects streamlines project delivery and contract administration. The digital information is further leveraged when the model is updated to reflect the project's as-built condition for future maintenance, asset management, and rehabilitation activities.





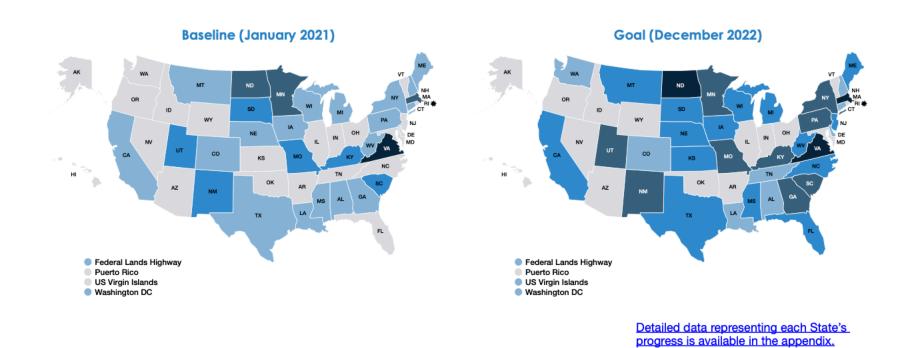
e-Ticketing

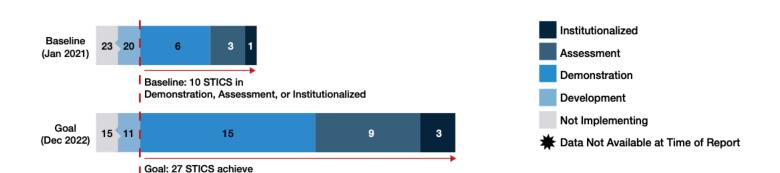
Forty-three States plan to be at the demonstration, assessment, or institutionalized stages of e-Ticketing at the end of EDC-6, compared to 18 at the beginning.



Digital As-Builts

The number of States attaining the demonstration, assessment, or institutionalized stages of digital as-builts is expected to grow from 10 to 27.





Demonstration, Assessment, or Institutionalized

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.

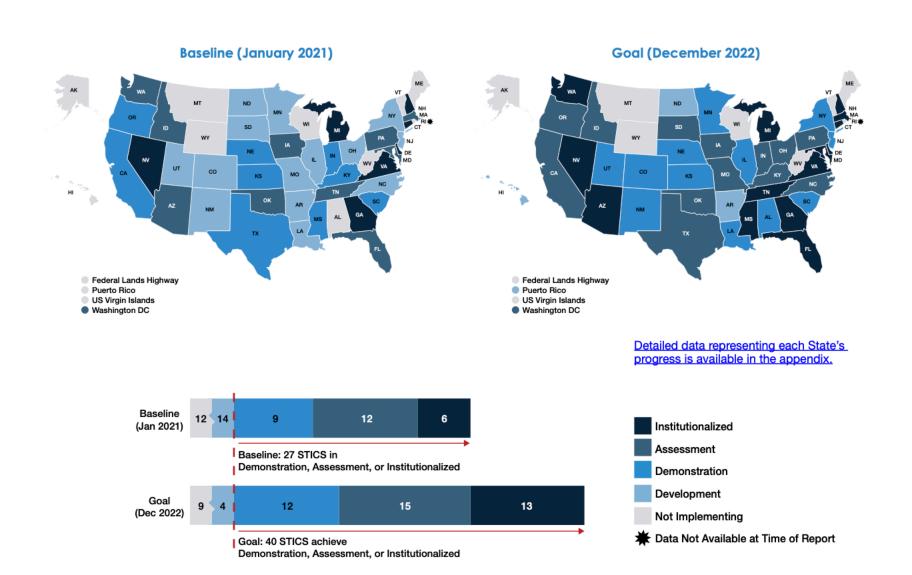
While TIM efforts have traditionally focused on high-speed roadways, <u>Next-Generation TIM</u> (NextGen TIM) is working with State, local, and Tribal partners to improve TIM on all roadways by integrating proven, yet underutilized, technology, data, and training strategies.

NextGen TIM is promoting technologies such as unmanned aerial systems for photogrammetry 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.



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

The number of States demonstrating, assessing, or using NextGen TIM as a standard practice is expected to expand from 27 to 40.

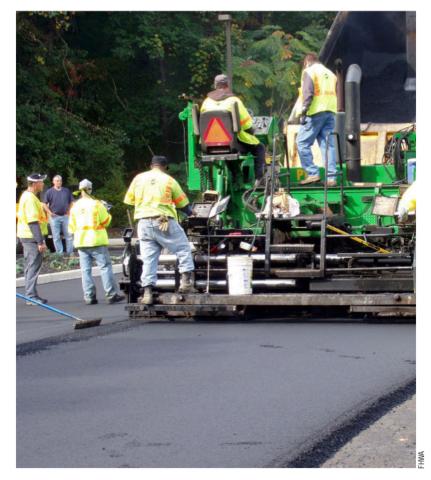


Strategic Workforce Development

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.

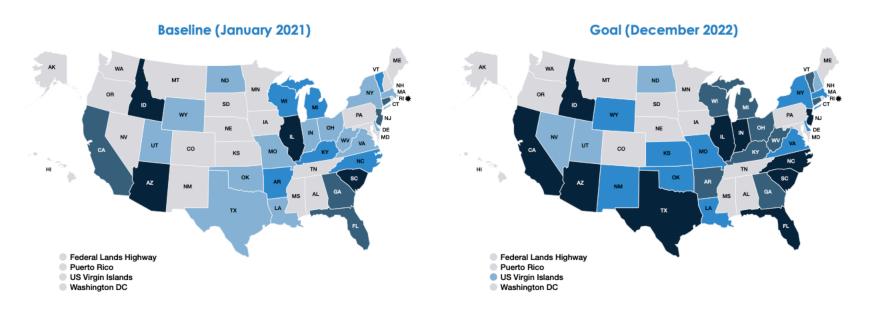
The resources are based on a 2-year pilot that explored how industry representatives could work collaboratively with the public workforce system to improve their ability to recruit, train, and retain highway construction workers. They include a playbook called Identify, Train, Place, which condenses 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.



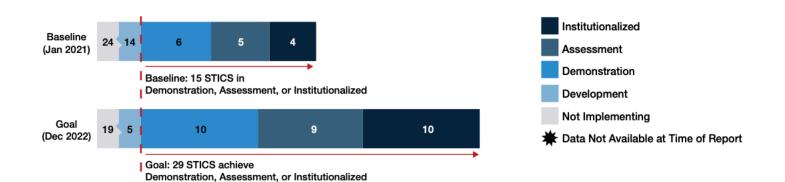


Strategic Workforce Development

Twenty-nine States plan to reach the demonstration, assessment, or institutionalized stages of strategic workforce development deployment by the end of EDC-6, up from 15.







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.

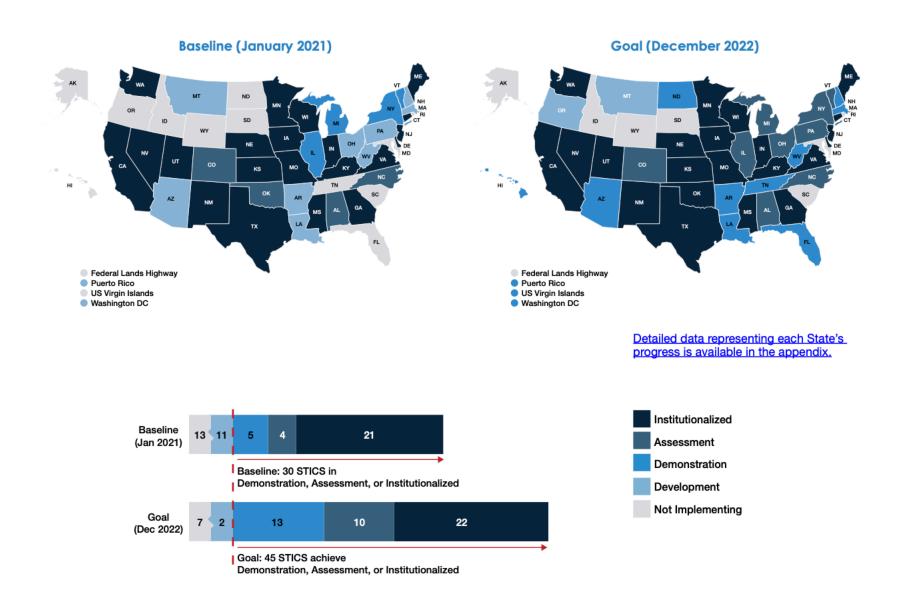




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Targeted Overlay Pavement Solutions (TOPS)

Forty-five States set a goal to demonstrate, assess, or institutionalize the use of TOPS in transportation applications, compared to the current total of 30.

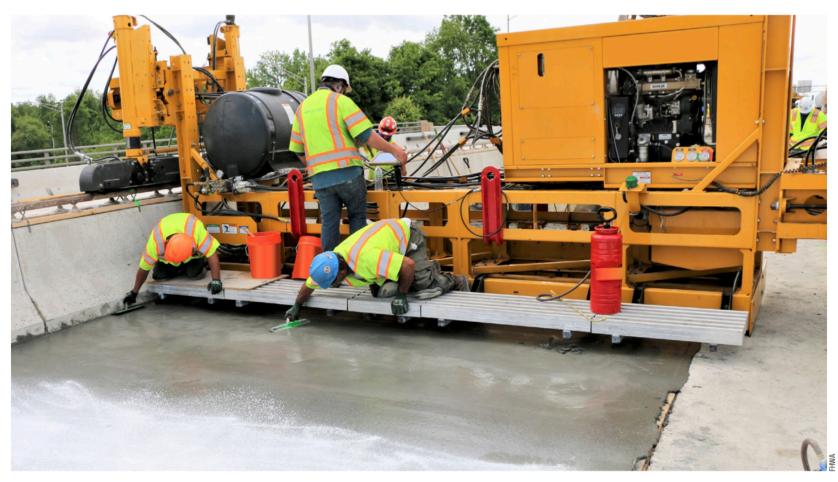


UHPC for Bridge Preservation and Repair

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.

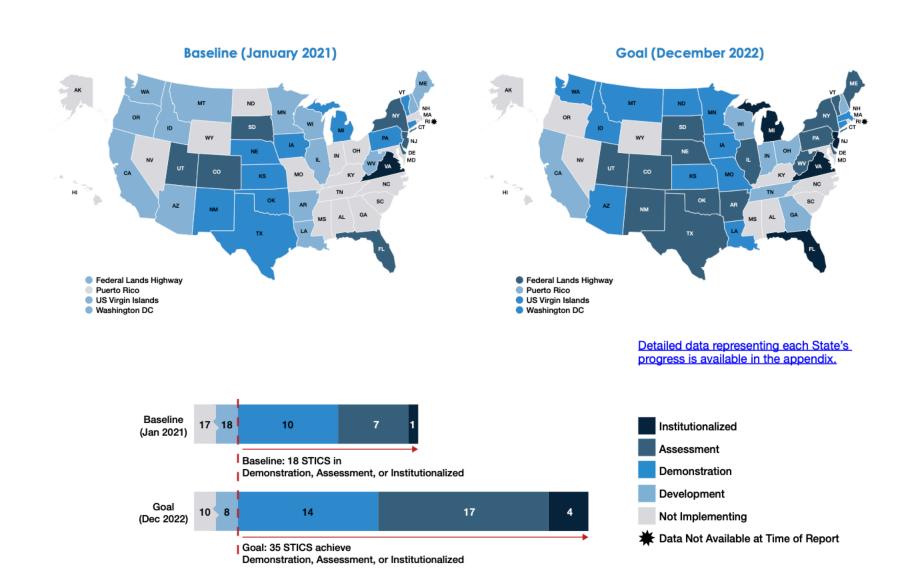
Because of its strength and durability, UHPC can be used in situations that normally use conventional concrete or repair mortars, and in some cases those that use structural steel. Some UHPC mixes gain strength rapidly, so bridges could be opened to traffic 24 hours after completing the necessary repairs.

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.



UHPC for Bridge Preservation and Repair

Thirty-five States set a goal to demonstrate, assess, or institutionalize UHPC by the end of EDC-6, up from 18.

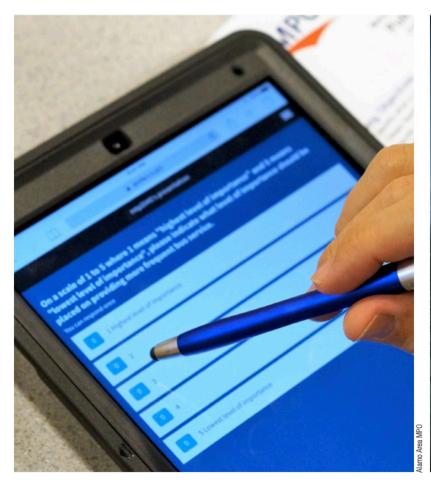


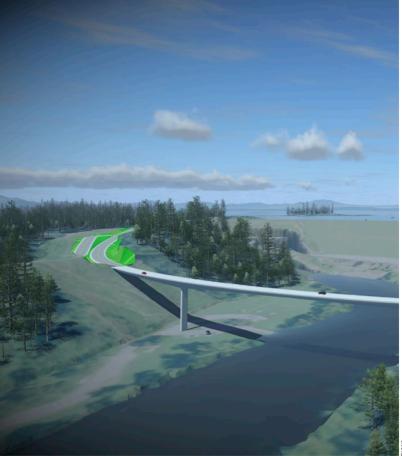
Virtual Public Involvement (VPI)

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.

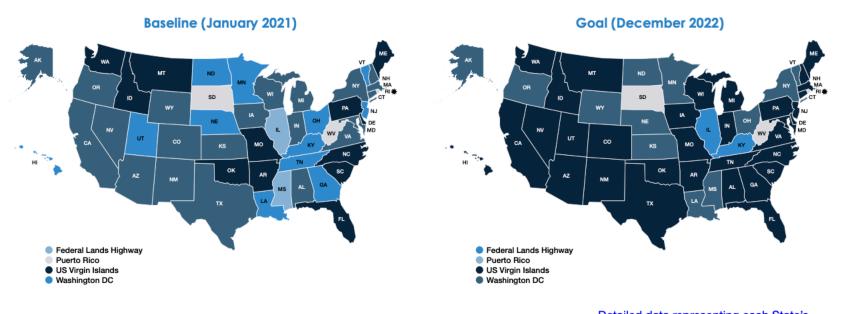




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Virtual Public Involvement (VPI)

Fifty States set a goal to attain demonstration, assessment, or institutionalized implementation of virtual public involvement approaches, up from 47.



Detailed data representing each State's progress is available in the appendix.



Appendix: EDC-6 Implementation Baseline and Goals by States

States	Crowdsourcing for Advancing Operations		e-Ticl	keting	g Digital As-Builts		Next-Gene	eration TIM	TIM Strategic Workforce Development Targeted Overlay Pavement Solutions (TOPS)				UHPC for Bridge Preservation and Repair		Virtual Public Involvement (VPI)	
	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal
Alabama	Institutionalized	Institutionalized	Assessment	Assessment	Development	Development	Not Implemented	Demonstration	Not implemented	Not Implemented	Assessment	Assessment	Not Implemented	Not Implemented	Assessment	Institutionalized
Alaska	Development	Demonstration	Not Implemented	Not Implemented	Not implemented	Not Implemented	Not Implemented	Not Implemented	Not implemented	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Assessment	Assessment
Arizona	Demonstration	Institutionalized	Not implemented	Demonstration	Not implemented	Not implemented	Assessment	Institutionalized	Institutionalized	Institutionalized	Development	Demonstration	Development	Demonstration	Assessment	Institutionalized
Arkansas	Demonstration	Demonstration	Demonstration	Demonstration	Not implemented	Not implemented	Development	Development	Demonstration	Assessment	Development	Demonstration	Development	Assessment	Institutionalized	Institutionalized
California	Data Not Available	Data Not Available	Development	Demonstration	Development	Demonstration	Demonstration	Assessment	Assessment	Institutionalized	Demonstration	Assessment	Development	Development	Assessment	Institutionalized
Colorado	Institutionalized	Institutionalized	Not implemented	Demonstration	Development	Development	Development	Demonstration	Not implemented	Not implemented	Institutionalized	Institutionalized	Assessment	Assessment	Assessment	Institutionalized
Connecticut	Demonstration	Demonstration	Development	Demonstration	Development	Development	Institutionalized	Institutionalized	Assessment	Assessment	Assessment	Assessment	Demonstration	Demonstration	Assessment	Institutionalized
Delaware	Institutionalized	Institutionalized	Development	Institutionalized	Not implemented	Development	Institutionalized	Institutionalized	Development	Demonstration	Development	Demonstration	Assessment	Assessment	Institutionalized	Institutionalized
Federal Lands Highway	Development	Development	Development	Development	Development	Development	Not implemented	Not implemented	Not implemented	Not implemented	Not implemented	Demonstration	Development	Assessment	Development	Demonstration
Florida	Not Implemented	Not implemented	Demonstration	Assessment	Not implemented	Demonstration	Assessment	Institutionalized	Assessment	Institutionalized	Institutionalized	Institutionalized	Assessment	Institutionalized	Institutionalized	Institutionalized
Georgia	Institutionalized	Institutionalized	Assessment	Institutionalized	Development	Assessment	Institutionalized	Institutionalized	Assessment	Assessment	Not implemented	Not implemented	Not implemented	Development	Demonstration	Institutionalized
Hawaii	Not Implemented	Not implemented	Not implemented	Demonstration	Not implemented	Not implemented	Not implemented	Development	Not implemented	Not implemented	Institutionalized	Institutionalized	Not implemented	Not implemented	Demonstration	Institutionalized
Idaho	Development	Institutionalized	Not implemented	Not implemented	Not implemented	Not implemented	Assessment	Assessment	Institutionalized	Institutionalized	Institutionalized	Institutionalized	Development	Demonstration	Institutionalized	Institutionalized
Illinois	Demonstration	Assessment	Demonstration	Assessment	Not implemented	Not implemented	Development	Demonstration	Institutionalized	Institutionalized	Not implemented	Not implemented	Development	Assessment	Development	Demonstration
Indiana	Demonstration	Demonstration	Demonstration	Institutionalized	Not implemented	Not implemented	Demonstration	Assessment	Development	Institutionalized	Demonstration	Assessment	Not implemented	Development	Assessment	Institutionalized
lowa	Assessment	Institutionalized	Assessment	Institutionalized	Development	Demonstration	Assessment	Assessment	Not implemented	Not implemented	Not implemented	Demonstration	Demonstration	Demonstration	Assessment	Institutionalized
Kansas	Development	Assessment	Not implemented	Demonstration	Not implemented	Demonstration	Demonstration	Demonstration	Not implemented	Demonstration	Institutionalized	Institutionalized	Demonstration	Demonstration	Assessment	Assessment
Kentucky	Institutionalized	Institutionalized	Development	Institutionalized	Demonstration	Assessment	Demonstration	Assessment	Demonstration	Assessment	Institutionalized	Institutionalized	Not implemented	Not implemented	Demonstration	Demonstration
Louisiana	Development	Demonstration	Development	Demonstration	Development	Development	Development	Demonstration	Development	Demonstration	Institutionalized	Institutionalized	Development	Demonstration	Demonstration	Assessment

Crowdsourcing Ope			e-Ticl	keting	Digital A	s-Builts	Next-Gene	eration TIM		Workforce opment	Targeted Pavement (TO		Preserva	or Bridge ation and pair	Virtual Public Involvement (VPI)		
	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal									
Maine	Development	Assessment	Development	Demonstration	Development	Demonstration	Not implemented	Not Implemented	Development	Assessment	Institutionalized	Institutionalized					
Maryland	Demonstration	Assessment	Development	Institutionalized	Not implemented	Not Implemented	Assessment	Institutionalized	Not implemented	Not Implemented	Development	Demonstration	Not implemented	Not implemented	Assessment	Institutionalized	
Massachusetts	Assessment	Institutionalized	Development	Demonstration	Assessment	Institutionalized	Assessment	Institutionalized	Development	Demonstration	Development	Demonstration	Not Implemented	Demonstration	Assessment	Institutionalized	
Michigan	Institutionalized	Institutionalized	Development	Assessment	Development	Demonstration	Institutionalized	Institutionalized	Demonstration	Assessment	Institutionalized	Institutionalized	Demonstration	Institutionalized	Assessment	Institutionalized	
Minnesota	Demonstration	Institutionalized	Development	Development	Assessment	Assessment	Development	Demonstration	Not Implemented	Not Implemented	Demonstration	Assessment	Development	Demonstration	Demonstration	Assessment	
Mississippi	Not Implemented	Not Implemented	Demonstration	Institutionalized	Development	Demonstration	Demonstration	Institutionalized	Not Implemented	Not Implemented	Institutionalized	Institutionalized	Not Implemented	Not Implemented	Development	Assessment	
Missouri	Assessment	Institutionalized	Assessment	Institutionalized	Demonstration	Assessment	Development	Assessment	Development	Demonstration	Institutionalized	Institutionalized	Development	Demonstration	Institutionalized	Institutionalized	
Montana	Development	Development	Not Implemented	Not Implemented	Development	Demonstration	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Institutionalized	Institutionalized	Development	Demonstration	Institutionalized	Institutionalized	
Nebraska	Not Implemented	Not Implemented	Demonstration	Assessment	Development	Demonstration	Demonstration	Demonstration	Not Implemented	Not Implemented	Not Implemented	Demonstration	Demonstration	Assessment	Demonstration	Assessment	
Nevada	Assessment	Assessment	Development	Demonstration	Not Implemented	Not Implemented	Institutionalized	Institutionalized	Not Implemented	Development	Institutionalized	Institutionalized	Not Implemented	Not Implemented	Assessment	Institutionalized	
New Hampshire	Demonstration	Assessment	Development	Demonstration	Development	Development	Institutionalized	Institutionalized	Not Implemented	Development	Institutionalized	Institutionalized	Development	Development	Assessment	Institutionalized	
New Jersey	Development	Institutionalized	Development	Demonstration	Not Implemented	Demonstration	Development	Demonstration	Assessment	Institutionalized	Development	Demonstration	Assessment	Institutionalized	Demonstration	Institutionalized	
New Mexico	Development	Demonstration	Not Implemented	Demonstration	Demonstration	Assessment	Development	Demonstration	Not Implemented	Demonstration	Institutionalized	Institutionalized	Demonstration	Assessment	Assessment	Institutionalized	
New York	Development	Demonstration	Demonstration	Assessment	Development	Assessment	Development	Demonstration	Development	Demonstration	Institutionalized	Institutionalized	Assessment	Assessment	Assessment	Assessment	
North Carolina	Assessment	Institutionalized	Development	Assessment	Not Implemented	Demonstration	Development	Assessment	Demonstration	Institutionalized	Development	Development	Not Implemented	Not Implemented	Institutionalized	Institutionalized	
North Dakota	Development	Development	Demonstration	Assessment	Assessment	Institutionalized	Development	Development	Development	Development	Assessment	Assessment	Not Implemented	Demonstration	Demonstration	Assessment	
Ohio	Assessment	Institutionalized	Development	Demonstration	Not Implemented	Not Implemented	Development	Assessment	Development	Assessment	Demonstration	Assessment	Not Implemented	Development	Demonstration	Assessment	
Oklahoma	Assessment	Institutionalized	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Assessment	Assessment	Development	Demonstration	Development	Assessment	Demonstration	Assessment	Institutionalized	Institutionalized	
Oregon	Assessment	Institutionalized	Not Implemented	Development	Not Implemented	Not Implemented	Demonstration	Assessment	Not Implemented	Not Implemented	Assessment	Institutionalized	Development	Assessment	Assessment	Assessment	

Crowdsourcin Advancing Ope			e-Ticl	keting	Digital A	As-Builts	Next-Gene	ration TIM		Workforce opment	Pavement	d Overlay Solutions PS)		or Bridge ation and pair		Virtual Public volvement (VPI)		
	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal	Baseline	Goal		
Pennsylvania	Institutionalized	Institutionalized	Development	Institutionalized	Development	Assessment	Assessment	Assessment	Not Implemented	Not Implemented	Not Implemented	Development	Demonstration	Assessment	Institutionalized	Institutionalized		
Puerto Rico	Assessment	Institutionalized	Not Implemented	Development	Not Implemented	Not Implemented	Not Implemented	Development	Not Implemented	Not Implemented	Development	Assessment	Not Implemented	Development	Not Implemented	Development		
Rhode Island	Data Not Available	Data Not Available	Development	Assessment	Data Not Available	Development	Demonstration	Data Not Available	Data Not Available	Data Not Available	Data Not Available							
South Carolina	Assessment	Assessment	Development	Demonstration	Demonstration	Assessment	Demonstration	Demonstration	Institutionalized	Institutionalized	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Institutionalized	Institutionalized		
South Dakota	Assessment	Assessment	Development	Demonstration	Demonstration	Demonstration	Development	Assessment	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Assessment	Assessment	Not Implemented	Not Implemented		
Tennessee	Development	Assessment	Assessment	Institutionalized	Not Implemented	Development	Assessment	Institutionalized	Not Implemented	Not Implemented	Not Implemented	Demonstration	Not Implemented	Development	Demonstration	Institutionalized		
Texas	Assessment	Institutionalized	Institutionalized	Institutionalized	Development	Demonstration	Demonstration	Assessment	Development	Institutionalized	Institutionalized	Institutionalized	Demonstration	Assessment	Assessment	Institutionalized		
US Virgin Islands	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Development	Not Implemented	Not Implemented	Not Implemented	Development	Not Implemented	Demonstration	Development	Demonstration	Institutionalized	Institutionalized		
Utah	Demonstration	Institutionalized	Assessment	Institutionalized	Demonstration	Assessment	Development	Demonstration	Development	Development	Institutionalized	Institutionalized	Assessment	Assessment	Demonstration	Institutionalized		
Vermont	Development	Development	Demonstration	Institutionalized	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Demonstration	Assessment	Demonstration	Assessment	Demonstration	Assessment	Demonstration	Assessment		
Virginia	Demonstration	Assessment	Institutionalized	Institutionalized	Institutionalized	Institutionalized	Institutionalized	Institutionalized	Development	Demonstration	Institutionalized	Institutionalized	Institutionalized	Institutionalized	Assessment	Institutionalized		
Washington	Demonstration	Assessment	Demonstration	Institutionalized	Not Implemented	Development	Assessment	Institutionalized	Not Implemented	Not Implemented	Institutionalized	Institutionalized	Development	Demonstration	Institutionalized	Institutionalized		
Washington DC	Development	Demonstration	Development	Development	Development	Development	Assessment	Assessment	Not Implemented	Not Implemented	Institutionalized	Institutionalized	Development	Demonstration	Demonstration	Assessment		
West Virginia	Not Implemented	Not Implemented	Development	Demonstration	Development	Demonstration	Not Implemented	Not Implemented	Development	Assessment	Development	Demonstration	Development	Assessment	Not Implemented	Not Implemented		
Wisconsin	Development	Demonstration	Development	Demonstration	Development	Demonstration	Not Implemented	Not Implemented	Demonstration	Assessment	Institutionalized	Institutionalized	Development	Development	Assessment	Institutionalized		
Wyoming	Assessment	Assessment	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Development	Demonstration	Not Implemented	Not Implemented	Not Implemented	Not Implemented	Assessment	Assessment		





