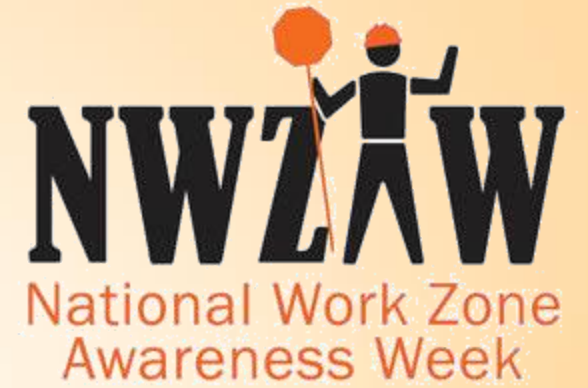


Innovative Technologies for Traffic Incident Management and Update to Part 6 of MUTCD

College of Engineers and Surveyors of Puerto Rico
Hato Rey, Puerto Rico

April 17, 2024





INTRODUCTION TO EVERYDAY COUNTS PROGRAM



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- Master of Science in Traffic and Transportation Engineering from Cauca University, Popoyán, Colombia
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Every Day Counts

Innovation for a Nation
on the Move

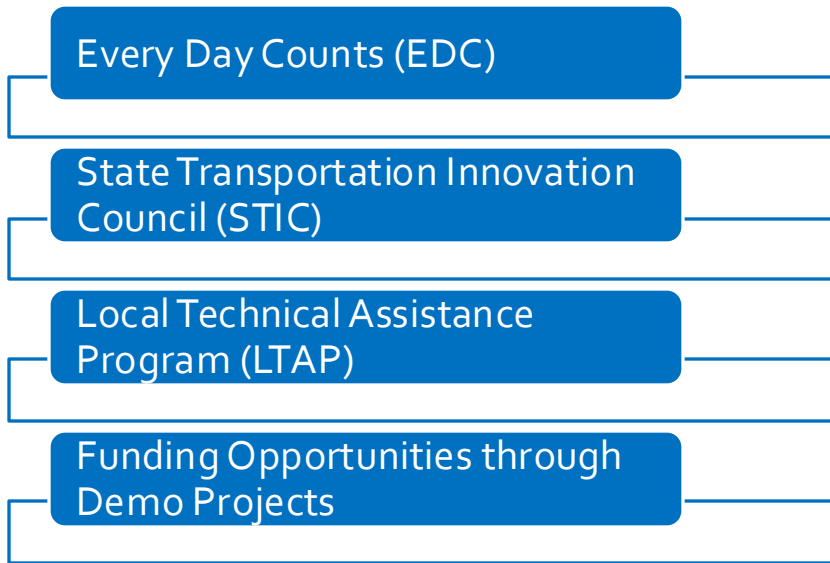
- Is the FHWA program to advance a culture of innovation in the transportation community. (Source: FHWA)
- EDC is a State-based model that identifies & rapidly deploys proven, yet underutilized innovation to:
 - shorten the project delivery process
 - enhance roadway safety
 - reduce traffic congestion
 - integrate automation



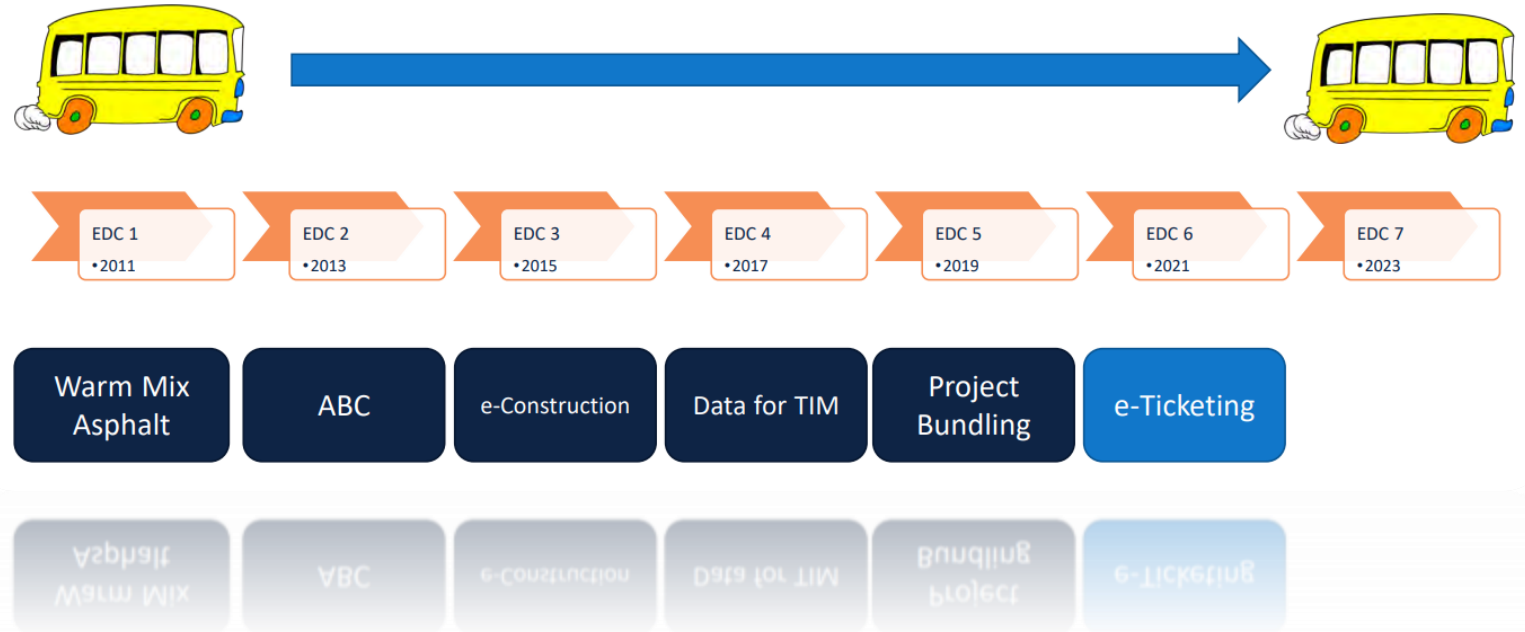
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Technology Programs in FHWA



Previous EDC Rounds



EDC-7 Innovations 2023-2024

Nighttime Visibility for Safety

The nighttime crash fatality rate is three times the daytime rate. Enhancing visibility along corridors, intersections, and pedestrian crossings can help reduce fatalities. This initiative promotes traffic control devices and properly designed lighting to improve safety for all users.

Next Generation TIM: Technology for Saving Lives

Over six million crashes a year in the U.S. put responders and other vulnerable road users at risk. Next-Generation Traffic Incident Management programs promote emerging technologies such as emergency vehicle lighting and queue warning solutions. These and other tools can advance safety and operations to mitigate incident impacts.

Integrating GHG Assessment and Reduction Targets in Transportation Planning

Transportation is the largest emitter of greenhouse gases in the U.S. This initiative provides resources to help agencies quantify greenhouse gases and set goals to decrease motor vehicle, construction, and life-cycle emissions through planning and project development.

Enhancing Performance with Internally Cured Concrete (EPIC²)

Cracking in concrete is a limiting factor in achieving long-term concrete performance. Internal curing mitigates shrinkage cracking and has the potential to substantially extend the service life of concrete bridge decks and enhance the performance of pavements and repairs.

EPDs for Sustainable Project Delivery

Construction materials such as concrete and asphalt have environmental impacts during their life cycle. Environmental product declarations, or EPDs, document those impacts. This tool helps States support procurement decisions and quantify embodied carbon reductions using life cycle assessments for sustainable pavements.

Rethinking DBE for Design-Build

Many disadvantaged business enterprise program procedures do not adequately address design-build contracting. New practices are available to support the effective integration of program requirements to help small, disadvantaged businesses compete for design-build contracts.

Strategic Workforce Development

The demand for highway workers is growing, and emerging technologies require new skills. This innovation helps stakeholders improve their ability to identify, train, and place highway construction workers. The focus will expand to rural and Tribal communities to increase career opportunities.

Initiatives selected to be implemented in Puerto Rico

Next Generation Traffic Incident Management (Next-Gen TIM) Technology for Saving Lives

- Over six million crashes a year in the US put responders and other vulnerable road users at risk.
- Next-Gen TIM programs promote emerging technologies such as emergency vehicle lighting and queue warning solutions.
- These and other tools can advance safety and operations to mitigate incident impacts.
 - New debris removal tools will enhance the safe removal of dangerous roadway objects.
 - Use of unmanned aerial systems (UAS) is reducing the amount of time responders spend mapping crash scenes.
 - Use of advance warning includes signs, alerts, and messages that are delivered to drivers visually and audibly. PR is considering the use of sequential lights (Pi-Lit)

