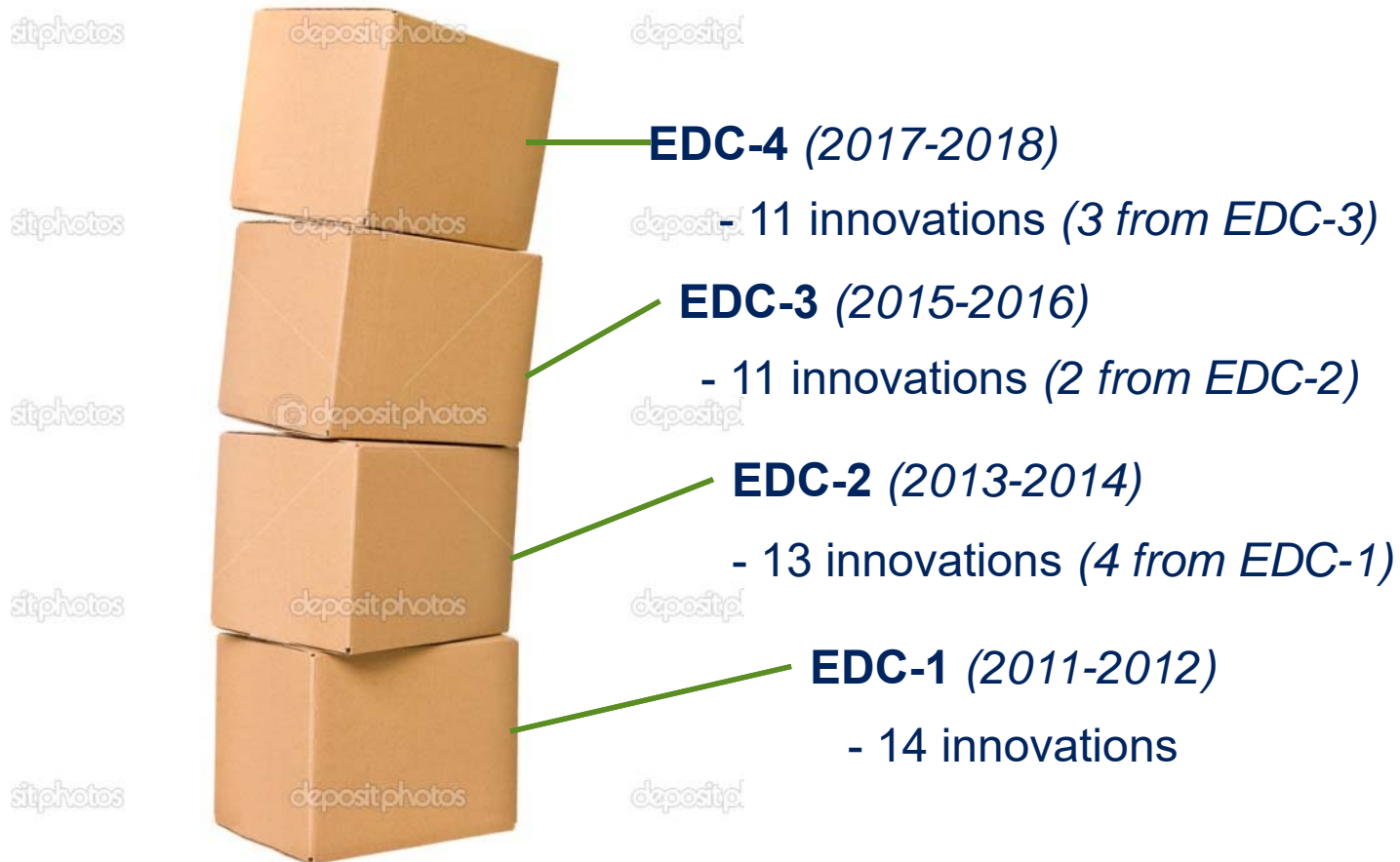

every day counts 

Technology Implementation

Tom Everett
Federal Highway Administration
Associate Administrator
Office of Infrastructure

Building on our Achievements



Accelerated deployment of >40 innovations to date

FHWA Every Day Counts (EDC)

Scope of Presentation

- EDC Overview
- EDC-4 latest round
- Pavement Preservation “When and Where”
- Pavement Preservation “How”
- E-Construction and Partnering
- C.H.A.N.G.E.

FHWA Every Day Counts

Overview

- Identify and rapidly deploy proven but underutilized innovations to:
 - Shorten the project delivery process
 - Enhance roadway safety
 - Reduce congestion
 - Improve environmental sustainability
- EDC Rounds: two year cycles
 - Initiating 4th Round (2017-2018)
 - 11 innovations

FHWA Every Day Counts

Overview, continued

EDC Overall Planning Process

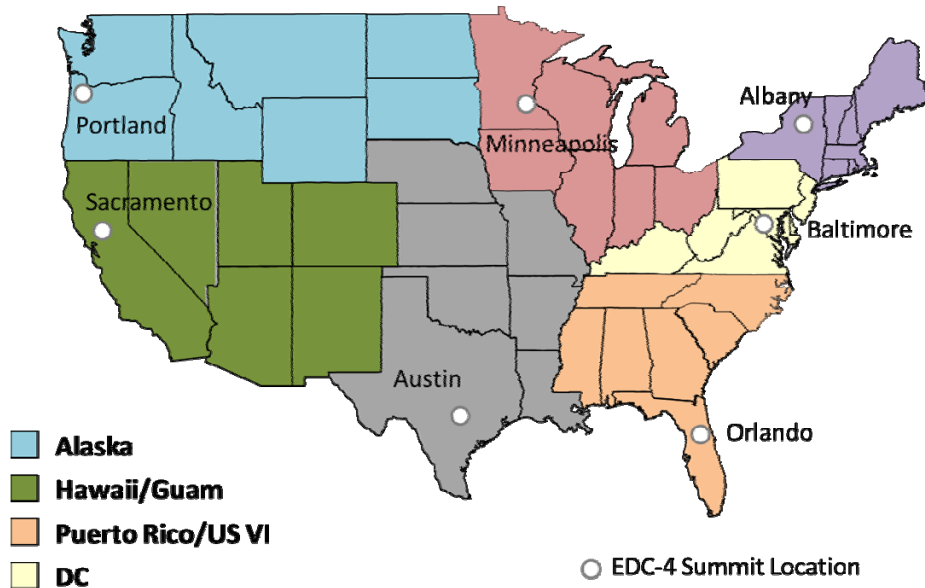
- Identification of technologies
 - Based on previous criteria
- Public and partner input
- Conduct Summits (Fall)
- Develop implementation plans
- Perform implementation activities

FHWA Every Day Counts

FHWA 2016 Summits (EDC-4)

2 – Virtual, FHWA Offices, September

7 – In-person, Transportation Leaders



Baltimore, MD	October 18 th & 19 th
Minneapolis, MN	October 25 th & 26 th
Albany, NY	November 2 nd & 3 rd
Portland, OR	November 29 th & 30 th
Sacramento, CA	December 1 st & 2 nd
Austin, TX	December 6 th & 7 th
Orlando, FL	December 14 th & 15 th

EDC-4 Innovations (2017-2018)

- Automated Traffic Signal Performance Measures (ATSPMs).
- Collaborative Hydraulics: Advancing to the Next Generation of Engineering (CHANGE)
- Community Connections
- Data-Driven Safety Analysis (DDSA)
- e-Construction and Partnering: A Vision for the Future
- Integrating NEPA and Permitting
- Pavement Preservation (When, Where, and How)
- Road Weather Management – Weather-Savvy Roads
- Safe Transportation for Every Pedestrian (STEP)
- Ultra-High Performance Concrete Connections for PBES
- Using Data to Improve Traffic Incident Management

Slide 7

JSK1

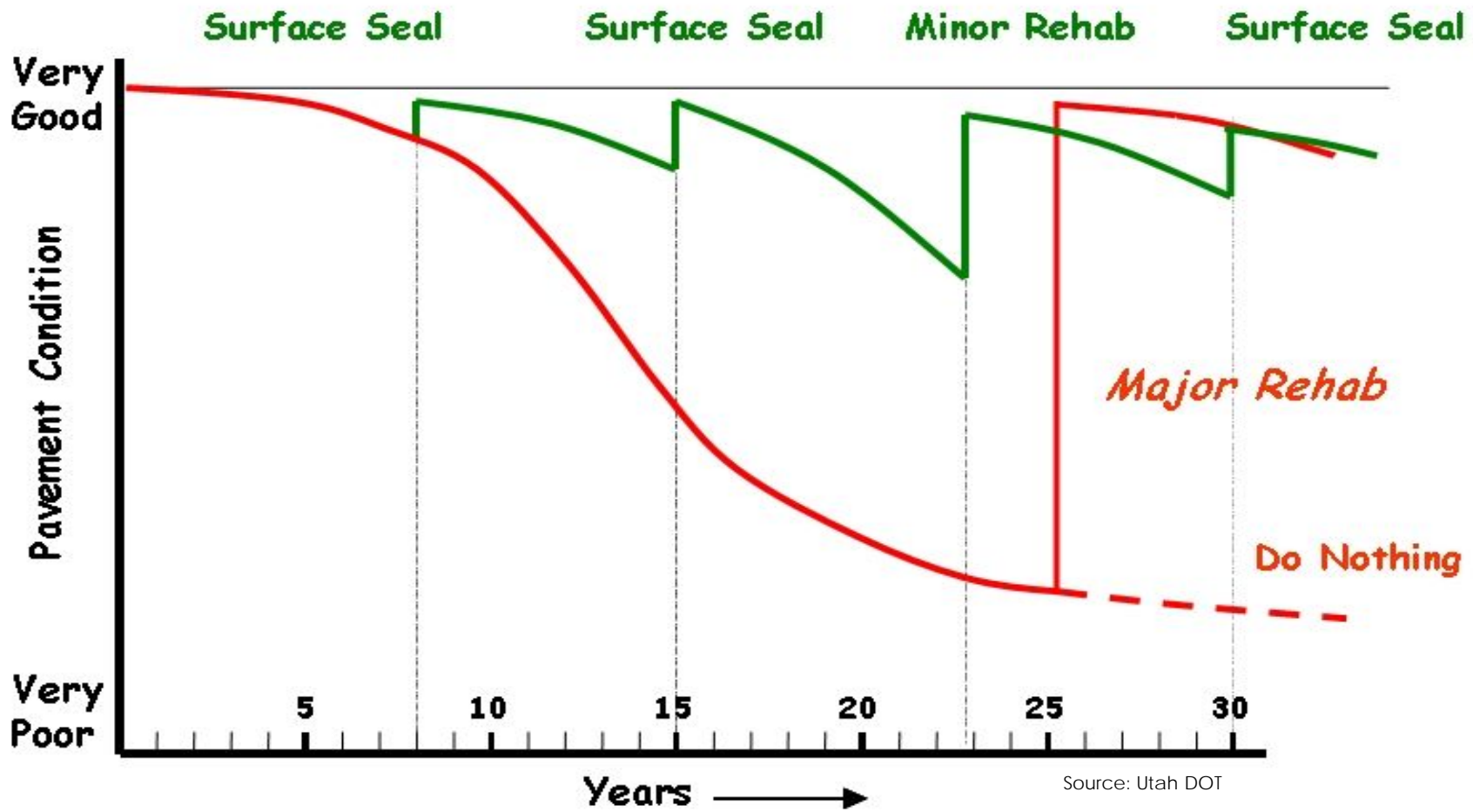
The order of the initiatives in the presentation should follow the order here (or vice-versa)

JSKrolak, 2/21/2017

Pavement Preservation: When and Where

- Network-level approach to managing pavements
 - considers the whole-life costs of the asset to reduce annual preservation costs without sacrificing performance
- Preservation part of the life-cycle analysis of alternate strategies for managing pavements
 - keep pavements in a state of good repair in the most cost-effective manner

*Pavement Management with
"Good Roads Cost Less"
Preservation Strategies*



Source: Utah DOT

Pavement Preservation: When and Where

Implementation Products:

1. Selection Guide
2. Analysis Tool
3. Training
4. Communications Plan
5. Strategy Guidance
6. Metrics

Pavement Preservation: How

Quality Construction and Materials

Flexible Pavements

- Microsurfacing
- Chip Seal
- Slurry Seal/Scrub Seal
- Ultrathin bonded wearing course



Source: Applied Pavement Technologies. 2016



Source: VSSI Microseal. 2016

Rigid Pavements

- Diamond grinding
- Partial-depth repair
- Full-depth repair
- Dowel bar retrofit/cross stitching



Source: FHWA. 2013



Source: American Concrete Pavement Association. 2016

Pavement Preservation How

Planned Activities 2017-2018

- Peer-to-Peer exchanges
 - Share experiences and collect specifications
- Update pavement preservation checklist
- Develop and deliver webbased training
 - Flexible and rigid pavements
- Develop best practice technology briefs
- Develop additional communications tools



Source: Applied Pavement Technologies 2016



Source: VBS Media Group 2016



Source: FHWA 2017



Source: American Concrete Pavement Association 2016

e-Construction and Partnering



Source: Florida DOT



e-Construction and Partnering

Every Day Counts
 Innovation Initiative

e-Construction
 Efficiency through technology and collaboration

Implementation Plan
 Every Day Counts 3 | Innovation Initiative
 January 2015

AASHIO
 Innovation Initiative

U.S. Department of Transportation
Federal Highway Administration



Peer Exchanges



FHWA Tablet Device Pilot (iPad/Surface Pro)



Regional Workshops



e-Construction Website

e-Construction and Partnering

e-Construction

- Paperless construction administration
- Digital project management (coordination, collaboration, & transparency)
- Secure & expedited document distribution to project stakeholders
- Single source of truth

Improve efficiency & project performance through enhanced communication, transparency, coordination & collaboration among stakeholders

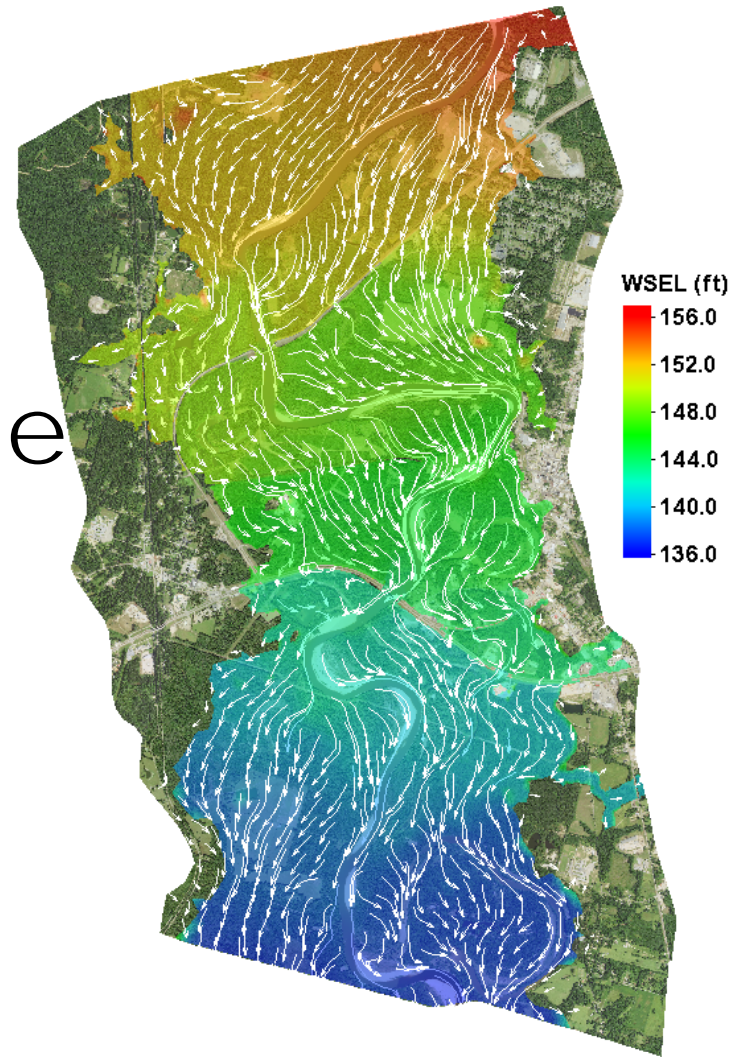
Partnering

- Build a relationship of mutual trust
- Achieve mutually beneficial goals
- Communicate openly
- Resolve issues and minimize disputes

C.H.A.N.G.E.



Collaborative
Hydraulics:
Advancing to the
Next
Generation of
Engineering



C.H.A.N.G.E.

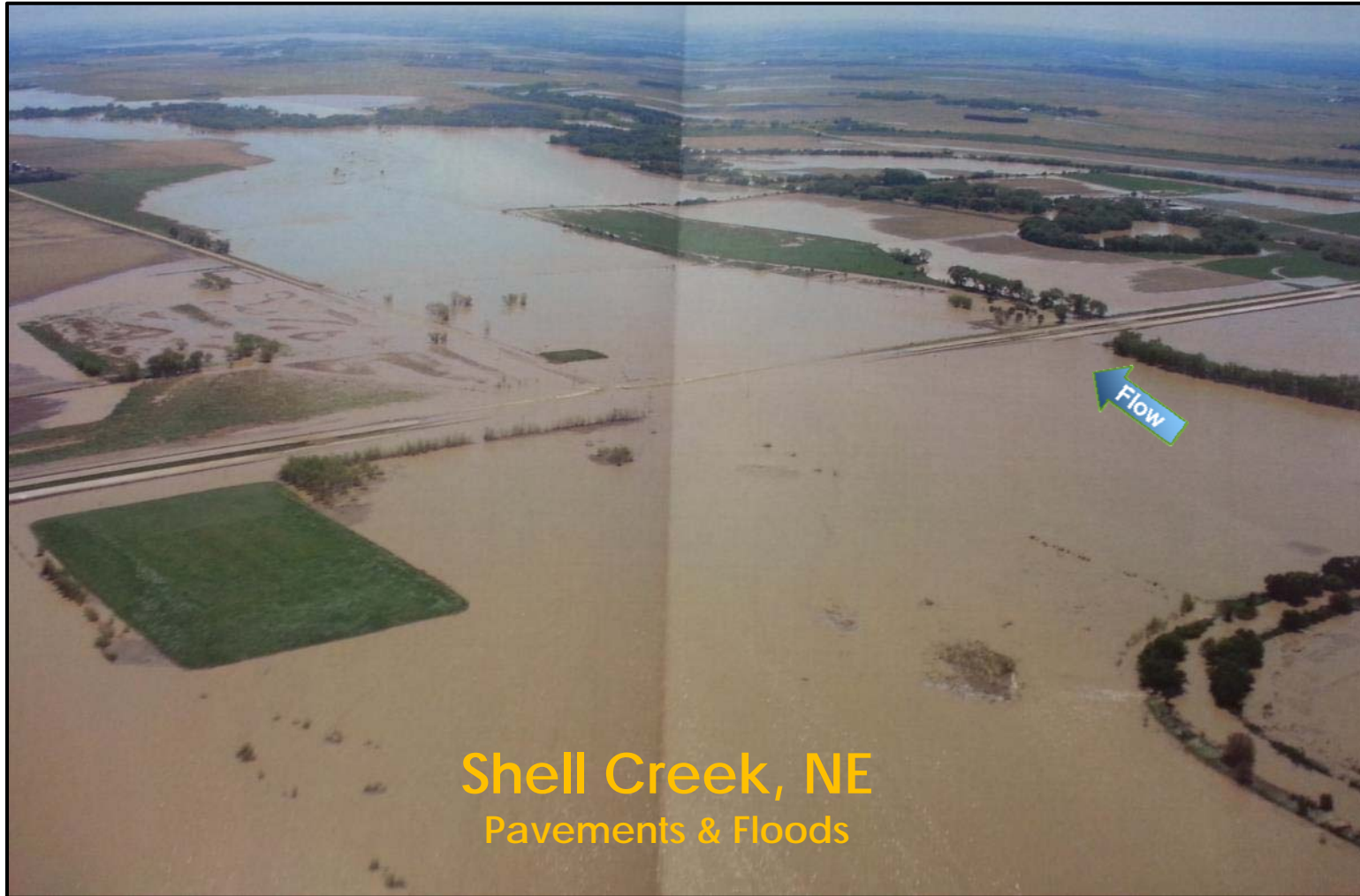


Image Source: Nebraska Department of Roads

C.H.A.N.G.E.



Image Source: Earthstar Graphics (Aerial Image)

C.H.A.N.G.E.

Planned Activities 2017-2018

Sustaining CHANGE

- Designation of champions
- Champions working group
- Prepare guidance examples

Increase awareness & collaboration

- FAQs & Fact sheets
 - 2D modeling
 - 3D modeling
 - Case studies: 1D v. 2D
- Showcase presentations

Expand access to training

- Promote/subsidize training

Reduce fear & uncertainty

- Modeling verifications
- Highlight successes

Expand support options

- Ongoing over 2017-2018
 - Technical assistance
 - Increase access to software
 - Technical support webinars
 - Web series on successful practices

Guidance & Practice

- Improve online user's manual
- Prepare 2D modeling guidance

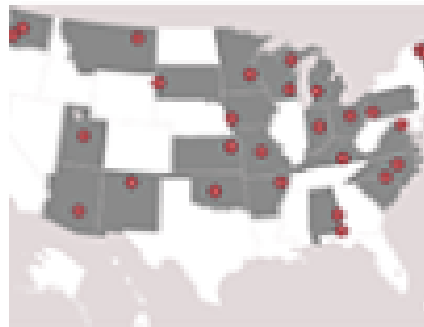
Interagency collaboration

- Identify other agency barriers
 - FEMA approaches
 - Habitat impact assessment

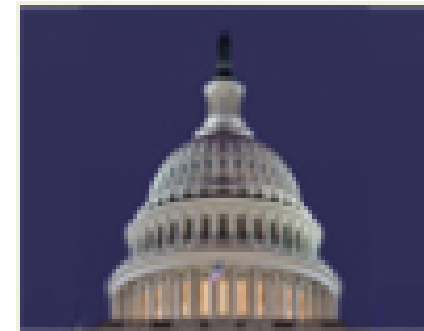
Funding Opportunities



STIC Incentive



*AID
Demonstration*



*Increased
Federal-share
for Project-level
Innovation*

FHWA Every Day Counts (EDC)

For Additional Information

FHWA EDC-4 Website:

<https://www.fhwa.dot.gov/innovation/everydaycounts/>