Accelerating Market Readiness Overview

FHWA Broad Agency Announcement # 693JJ3-19-BAA-001
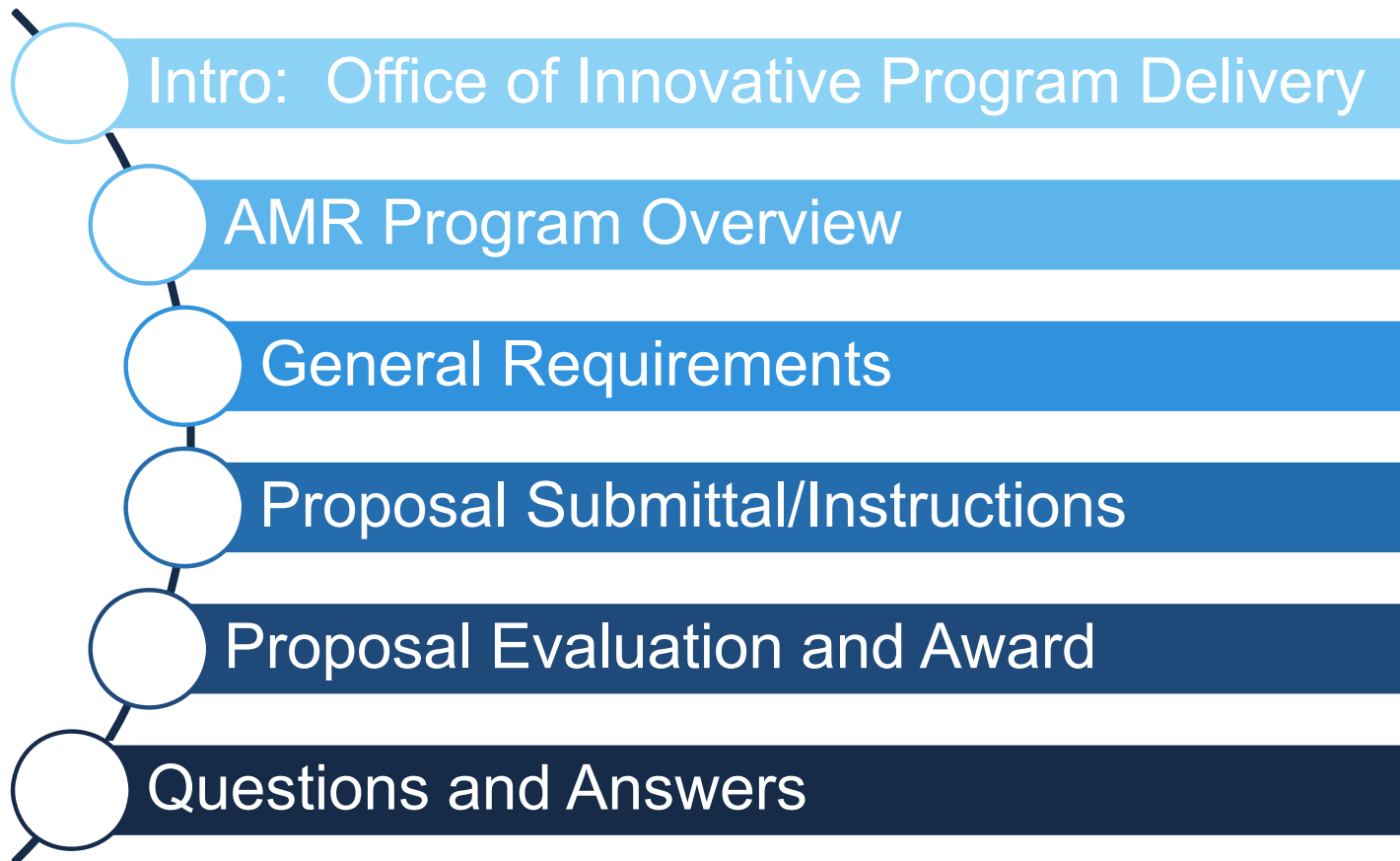Web Conference
April 8, 2019

Today's Presenters

Jeff Zaharewicz, Senior Advisor
CENTER FOR ACCELERATING INNOVATION

Matt Carr, Contract Specialist
OFFICE OF ACQUISITIONS
AND GRANTS MANAGEMENT

Today's Discussion

- Intro: Office of Innovative Program Delivery
- AMR Program Overview
- General Requirements
- Proposal Submittal/Instructions
- Proposal Evaluation and Award
- Questions and Answers

U.S. Department of Transportation
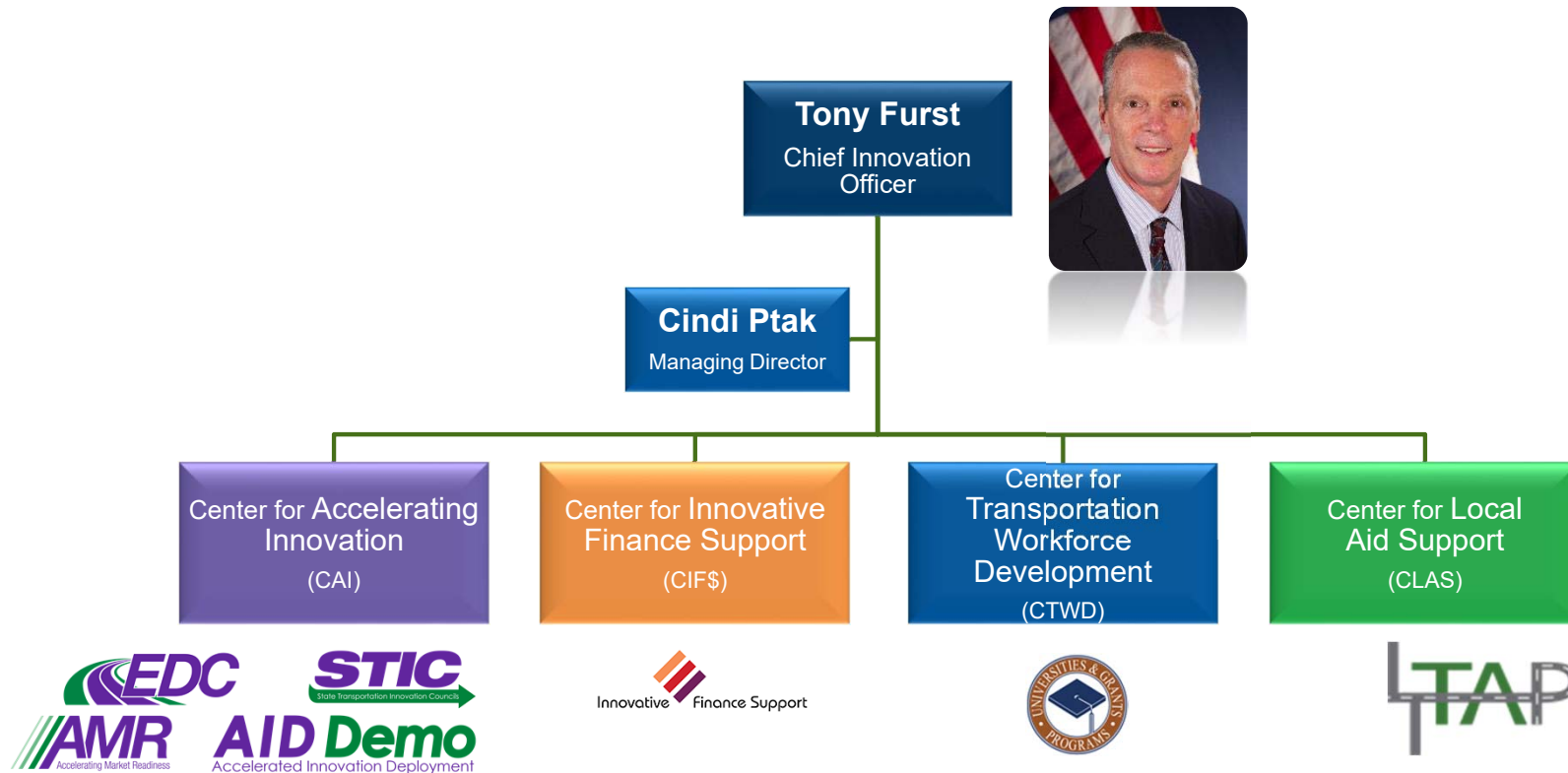**Federal Highway Administration**

FHWA Office of Innovative Program Delivery Mission

Improve transportation performance by driving innovation into action through partnerships, technology development, and capacity building

Foster a *Culture of Innovation*

https://www.fhwa.dot.gov/innovativeprograms/

Meet the Office of Innovative Program Delivery

Tony Furst
Chief Innovation Officer

Cindi Ptak
Managing Director

Center for Accelerating Innovation
(CAI)

Center for Innovative Finance Support
(CIF$)

Center for Transportation Workforce Development
(CTWD)

Center for Local Aid Support
(CLAS)

Technology and Innovation Deployment Program Goals

- **Accelerate adoption** of innovative technologies in all aspects of highway transportation

- Provide **leadership and incentives**

- Construct **longer-lasting** highways

- **Improve** highway efficiency, safety, mobility, reliability, service life, environmental protection, and sustainability

- **Develop and deploy new tools**, techniques, and practices to accelerate the adoption of innovation

Center for Accelerating Innovation Core Programs

https://www.fhwa.dot.gov/innovation

National STIC Network	**Every Day Counts**	**AID** Demonstration Grants	**Accelerating Market Readiness**

Center for Accelerating Innovation

**Building a New Bridge
Between Research and Practice**

Is there a chasm between Research & Practice?

Accelerating Market Readiness Goals

- *Provide a rapid, national assessment of emerging innovations* in a **shared-risk environment**

- Provide sound, objective, detailed, and coordinated **evaluation and reporting**

- Provide **marketing and communication** of AMR project findings through the National STIC Network and other Stakeholder Partners

- Feed the **EDC pipeline** (or other deployment efforts)

How will the AMR Program Work?

- **Broad Agency Announcement:** open to *all sources*

- **AASHTO Innovation Initiative** representatives as **Peer Evaluators** of proposals received

- **FHWA will issue awards** for recommended projects

- **Applicant conducts activities** per their proposal/plan (e.g., field assessments, documentation of findings, etc.)

- FHWA and others **communicate** the results of the completed project to transportation community

Anticipated Benefits

- Spotlight on a **wider range of innovations** available for the transportation community to deploy

- **Enhanced connections** between the research and practitioner communities

- Enhanced use of available resources to capture and **share knowledge and information** on innovative practices

- Stronger engagement with **National STIC Network**

- Stronger engagement with **AASHTO Innovation Initiative**

AMR Version 1.0 (2012-2017)

FHWA *INTERNAL PROGRAM* administered by FHWA-CAI

- 2012-2016: Project Selection by FHWA Executive Director
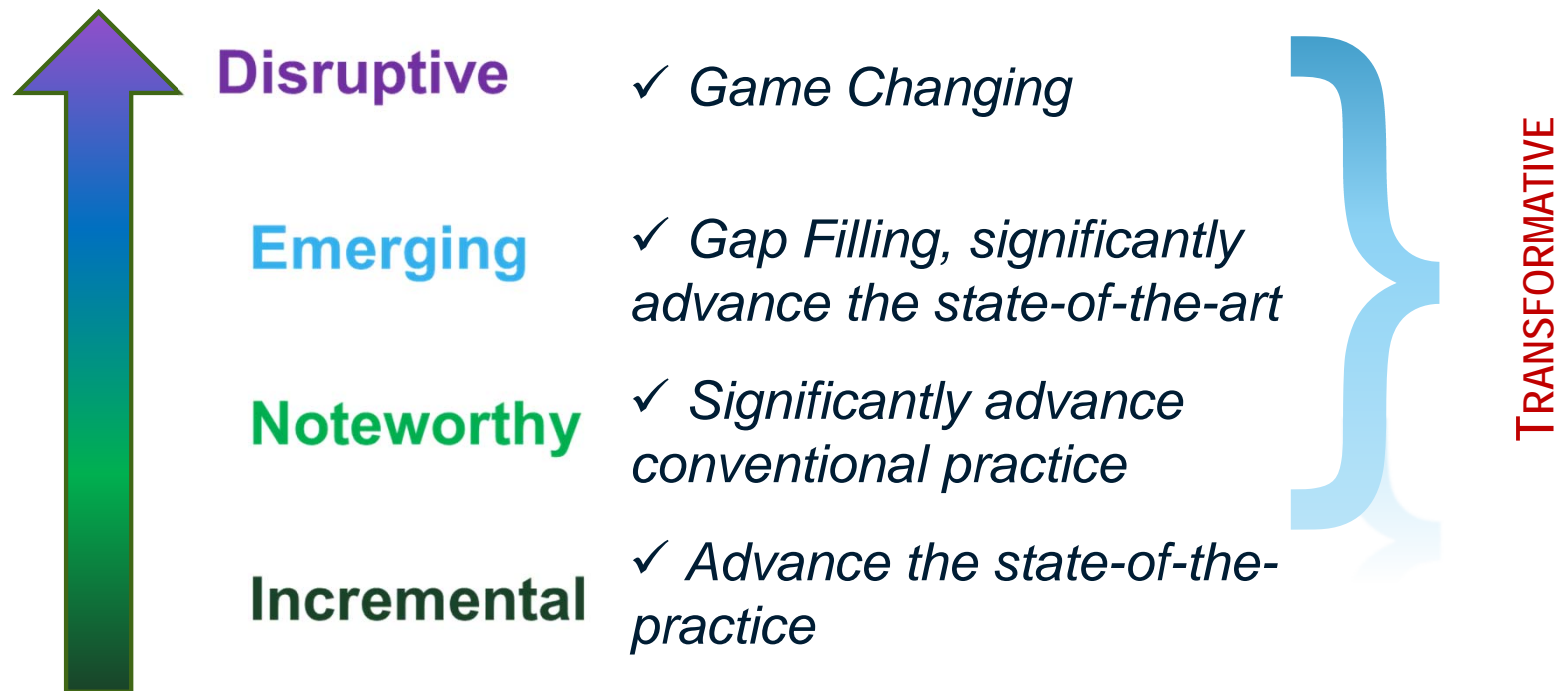
- 2017: Projects vetted through FHWA leadership

In-situ testing device

Mobile Solution for Assessment and Reporting (MSAR)

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Program Scope

Disruptive
- ✓ Game Changing

Emerging
- ✓ Gap Filling, significantly advance the state-of-the-art

Noteworthy
- ✓ Significantly advance conventional practice

Incremental
- ✓ Advance the state-of-the-practice

TRANSFORMATIVE

Technology Readiness Level: Frame of Reference

Basic Research TRL 1 to 3	Applied Research TRL 4 to 5	Development TRL 6 to 8	Implementation TRL of 9
• Basic principles and research • Application formulated • Proof of Concept	• Components validated in a laboratory environment • • **Integrated components demonstrated in a laboratory environment**	• Prototype demonstrated in relevant environment • **Prototype demonstrated in operational environment** • Technology proven in operational environment	• Technology refined and adopted • - *Every Day Counts Innovations are a TRL of 9*

9
8
7
6
5
4
3
2
1

AMR Focus Areas

Image Source: saasmarketingstrategy.blogspot.ch

Safety

- How can highway design, infrastructure, and traffic control devices be changed to **address safety risks**?

- How can **safety data analysis be improved** upon or used in better ways **to guide transportation agencies' decisions**?

- How can the **disproportionate transportation safety risks** on State and locally owned roads in **rural communities** be mitigated?

- How should the infrastructure be changed to **facilitate faster deployment of automated vehicles**?

Shortening Project Delivery

- How can project development and delivery processes be improved or streamlined to **provide timely benefits to users** while **safeguarding our communities** and **maintaining a healthy environment**?

- How can Federal investments be better targeted toward transportation projects that address **high priority infrastructure needs**?

- How can State and local resources and **private sector engagement be better leveraged**?

Infrastructure Performance

- How can our transportation system's operations and performance be **improved through the entire life cycle of the infrastructure facilities**?

- How can the use of **innovative maintenance and preservation strategies** help restore the transportation infrastructure and assets to a state of good repair?

- How can the infrastructure be planned, constructed and maintained using best **operational and risk management practices**?

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Activities Eligible for AMR Funding include:

- Field study/field evaluation

- "Trial runs" on transportation projects

- Data collection and data analysis

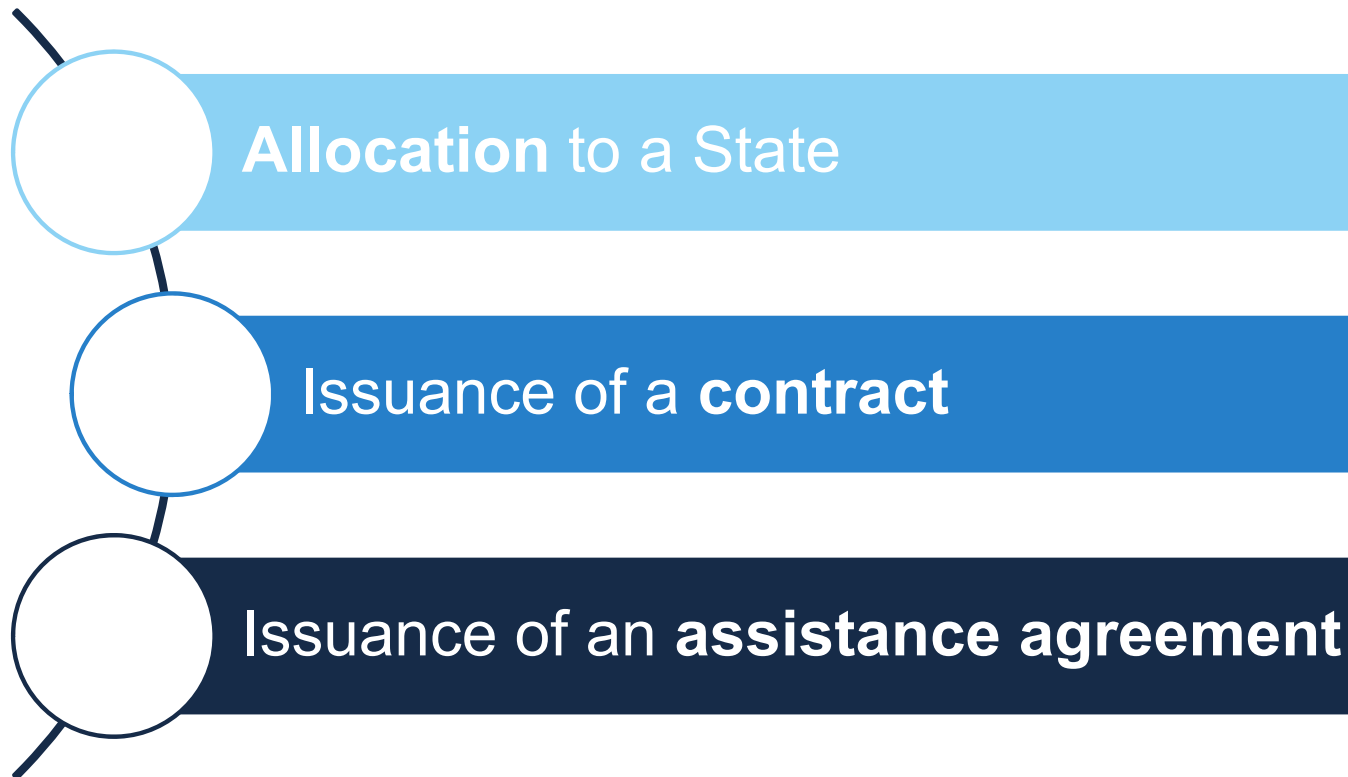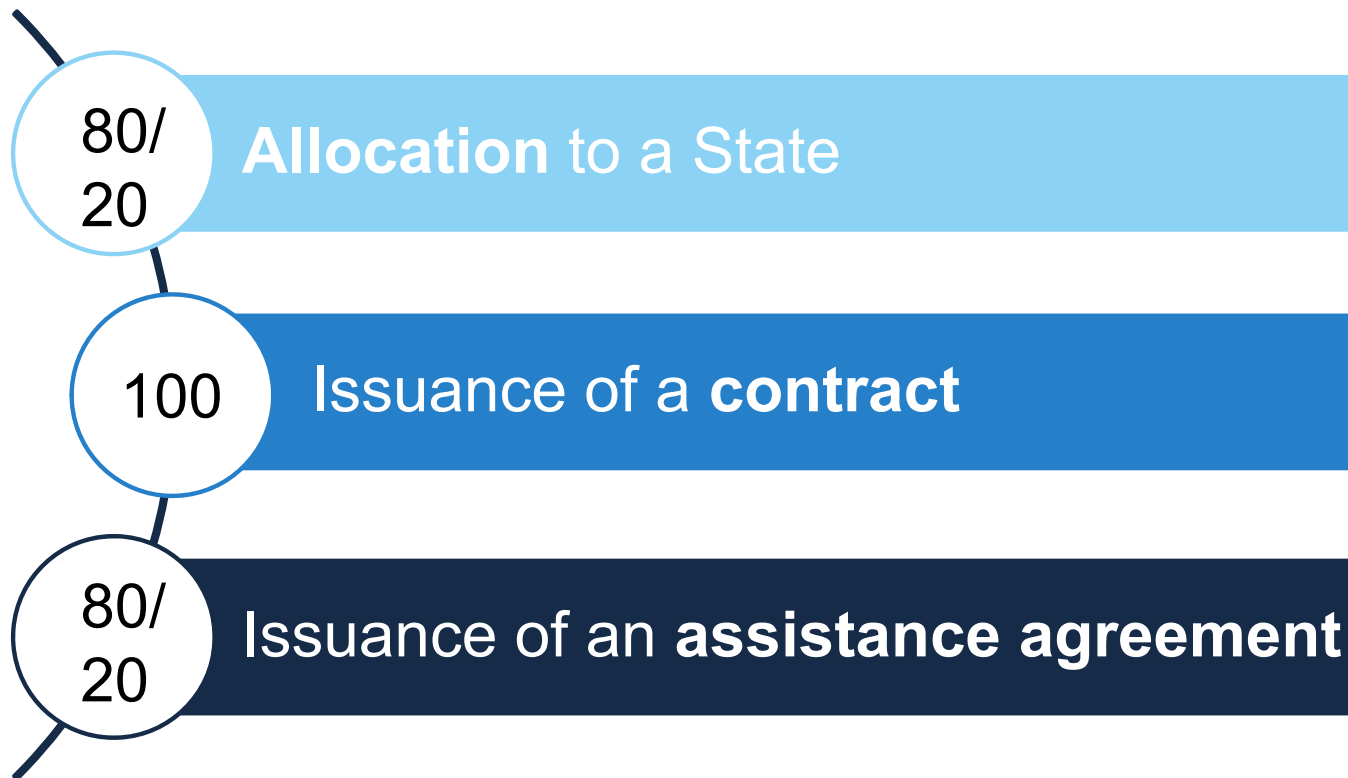- Documenting the findings of the above

Eligible Awardees

- State Departments of Transportation

- Indian tribes

- Sub recipients as defined in 2 CFR 200.300

- Private sector organizations

- Partnership/consortium of the above

Types of awards possible:

Allocation to a State

Issuance of a **contract**

Issuance of an **assistance agreement**

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Cost Share Requirements:

80/20 — **Allocation** to a State

100 — Issuance of a **contract**

80/20 — Issuance of an **assistance agreement**

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Other Details:

- **Available funding:** Up to $3 million

- **Anticipated award dates:** FY 2019-FY 2020

- **Anticipated period of performance:** 12 to 24 months, depending on AMR topic and awardee's work plan
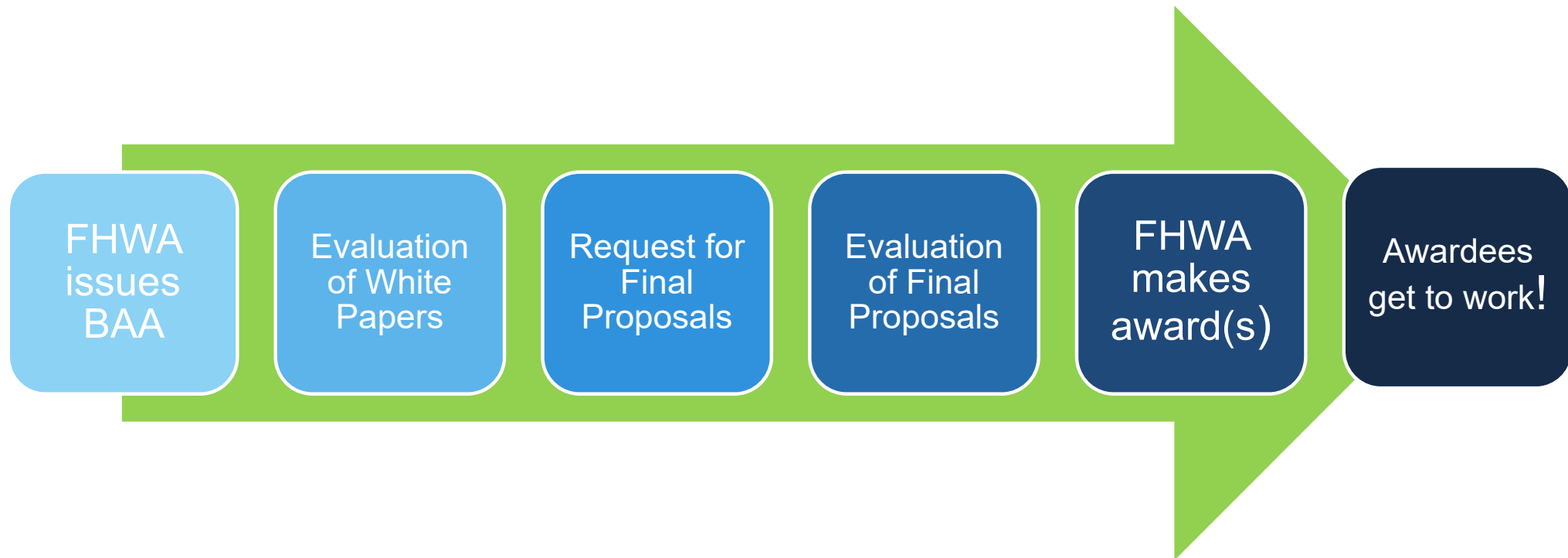
Instructions!

Image Source: istockphoto.com

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White Paper Proposal Submission Due Date:
April 22, 2019 (10:00 AM Eastern Time)

Submit to:

Matthew.Carr@dot.gov
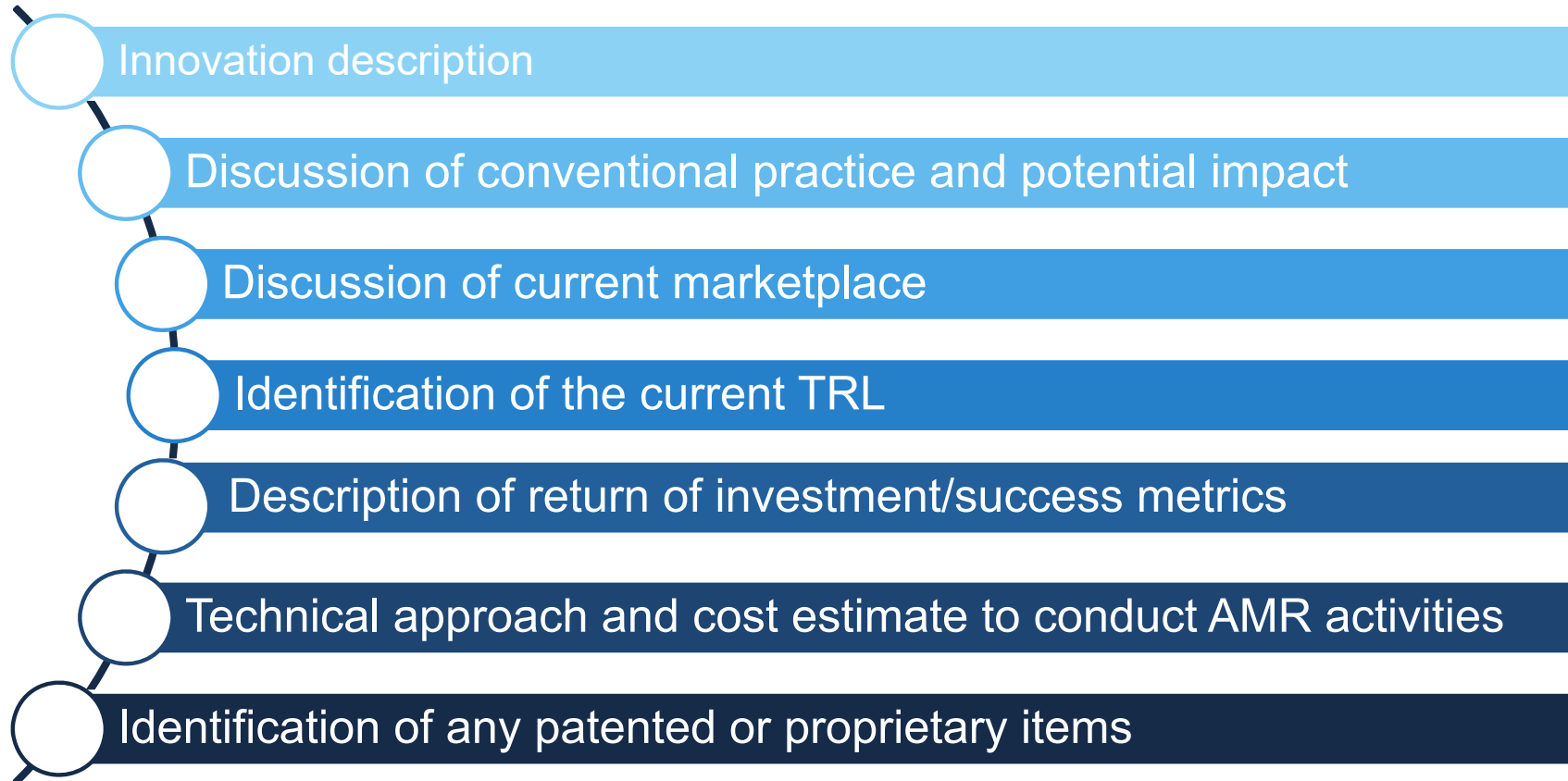
Milestones from solicitation to award

FHWA issues BAA → Evaluation of White Papers → Request for Final Proposals → Evaluation of Final Proposals → FHWA makes award(s) → Awardees get to work!

White Paper Format and Content

Cover Page

Executive Summary

White Paper: Executive Summary Contents

Innovation description

Discussion of conventional practice and potential impact

Discussion of current marketplace

Identification of the current TRL

Description of return of investment/success metrics

Technical approach and cost estimate to conduct AMR activities

Identification of any patented or proprietary items

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White Paper Evaluation Technical Merit

- ## Technology Readiness Level

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White Paper Evaluation Technical Merit

- **Support of DOT and FHWA strategic initiatives/national goals**

Safety

Goal: Reduce transportation-related fatalities and serious injuries across the transportation system.

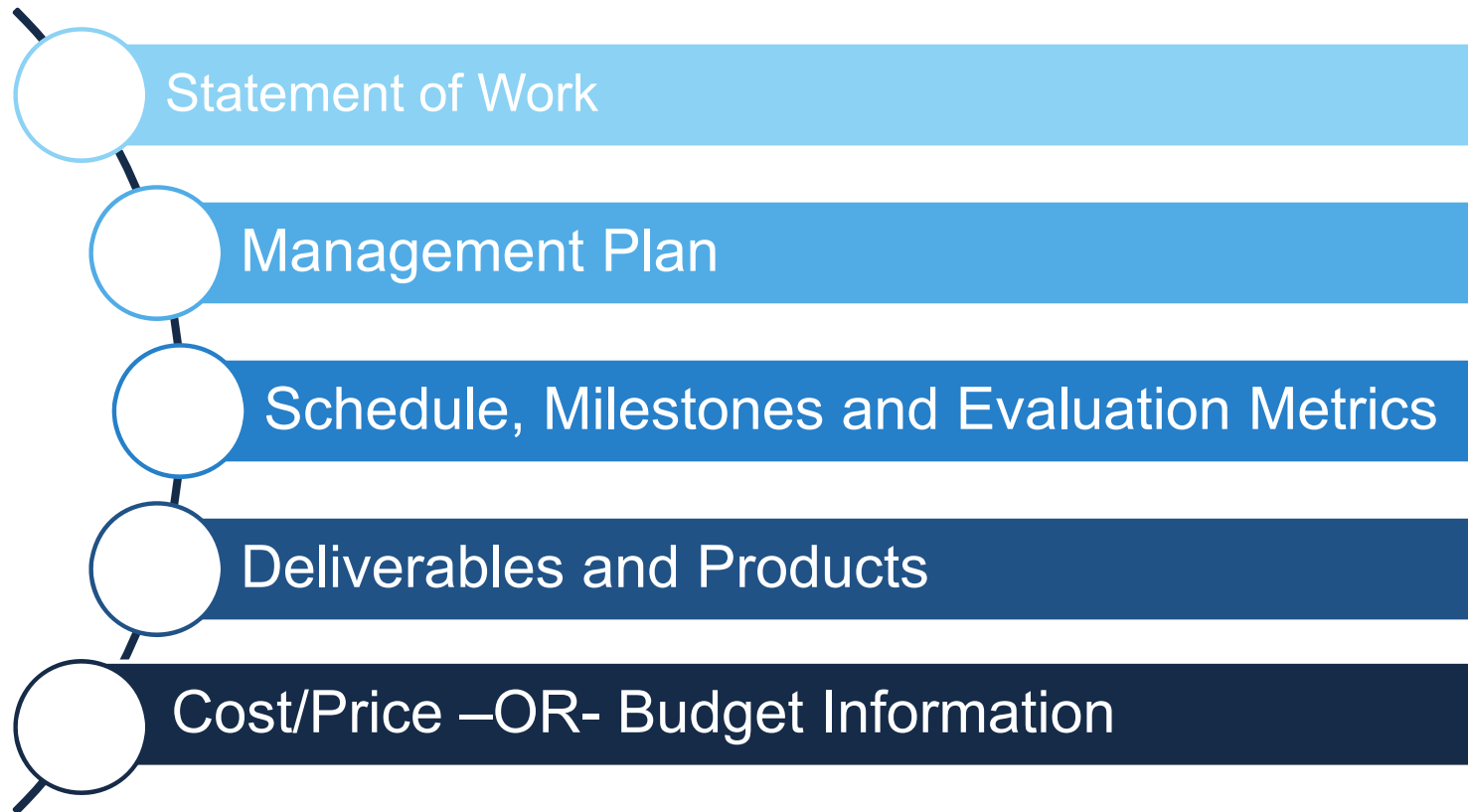### Infrastructure
Performance

Goal: Invest in infrastructure to ensure mobility and accessibility and to stimulate economic growth, productivity, and competitiveness for American workers and businesses.

Accelerated Project Delivery
Innovation

Goal: Lead in the development and deployment of innovative practices and technologies to improve the safety and performance of the Nation's transportation system.

Final Proposal Contents:

Statement of Work

Management Plan

Schedule, Milestones and Evaluation Metrics

Deliverables and Products

Cost/Price –OR- Budget Information

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Final Proposal Evaluation Technical Merit

Advancement of
the current state of practice

Potential demand for the innovation after
AMR program support

Technical Approach

Potential for future inclusion in EDC

Disruptive ✓ Game Changing

Emerging ✓ Gap Filling, significantly advance the state-of-the-art

Noteworthy ✓ Significantly advance conventional practice

Incremental ✓ Advance the state-of-the-practice

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Center for Accelerating Innovation

Newsletters

EDC News Weekly Newsletter | INNOVATOR Bi-monthly Newsletter

https://www.fhwa.dot.gov/innovation/resources/

EDC

AID Demo
Accelerated Innovation Deployment

STIC
State Transportation Innovation Councils

AMR
Accelerating Market Readiness

Thank You