



## Ahead of the Curve

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Ahead of the Curve Training Program:  
Mastering the Art of Transportation Research Program Management  
Sponsored by the National Cooperative Highway Research Program Project 20-105



# Sponsors and Course Instructors

## Sponsors: Transportation Research Board

Lori Sundstrom, National Cooperative Highway Research Program (NCHRP) (and Chris Hedges, James Bryant, and Claire Randall)

## Course Developers

Jason Bittner, MPA, PMP, Applied Research Associates, Inc. (ARA)

Johanna Zmud, Ph.D., Texas A&M Transportation Institute (TTI)

Katie Turnbull, Ph.D., Texas A&M Transportation Institute (TTI)

## Other Acknowledgements

ABG20(G) Ahead of the Curve Subcommittee and Task Force Members  
(Co-Chairs David Jared and Ines Aviles-Spadoni)

Barbara Harder, B.T. Harder, Inc. (former Task Force Chair)

NCHRP 20-105(A) and 20-105(B) Panel Members

# PROGRAM BACKGROUND AND OVERVIEW

- Overview of the Ahead of the Curve: Mastering the Art of Transportation Research Management Training Program



# AHEAD OF THE CURVE: MASTERING THE MANAGEMENT OF TRANSPORTATION RESEARCH TRAINING PROGRAM



**Program Goal:** To develop and deliver a coordinated and continuing TRB training program that enhances the knowledge, skills, and abilities of those who manage transportation research and innovation programs.



# Ahead of the Curve

Mastering the Management of Transportation Research and Training Program

## Program Objectives:

High Quality

Ensure high quality research programs and projects contribute to meeting organizational goals

Value

Better communicate the value of research and results to others

Stature

Raise the stature of Transportation Research and Research Management

Community

Provide a community and sense of belonging to a profession



# Ahead of the Curve

Mastering the Management of Transportation Research and Training Program

## Training Program Curriculum:

- Introductory Course
- 4 Core Courses
- 12 Elective Courses—4 required

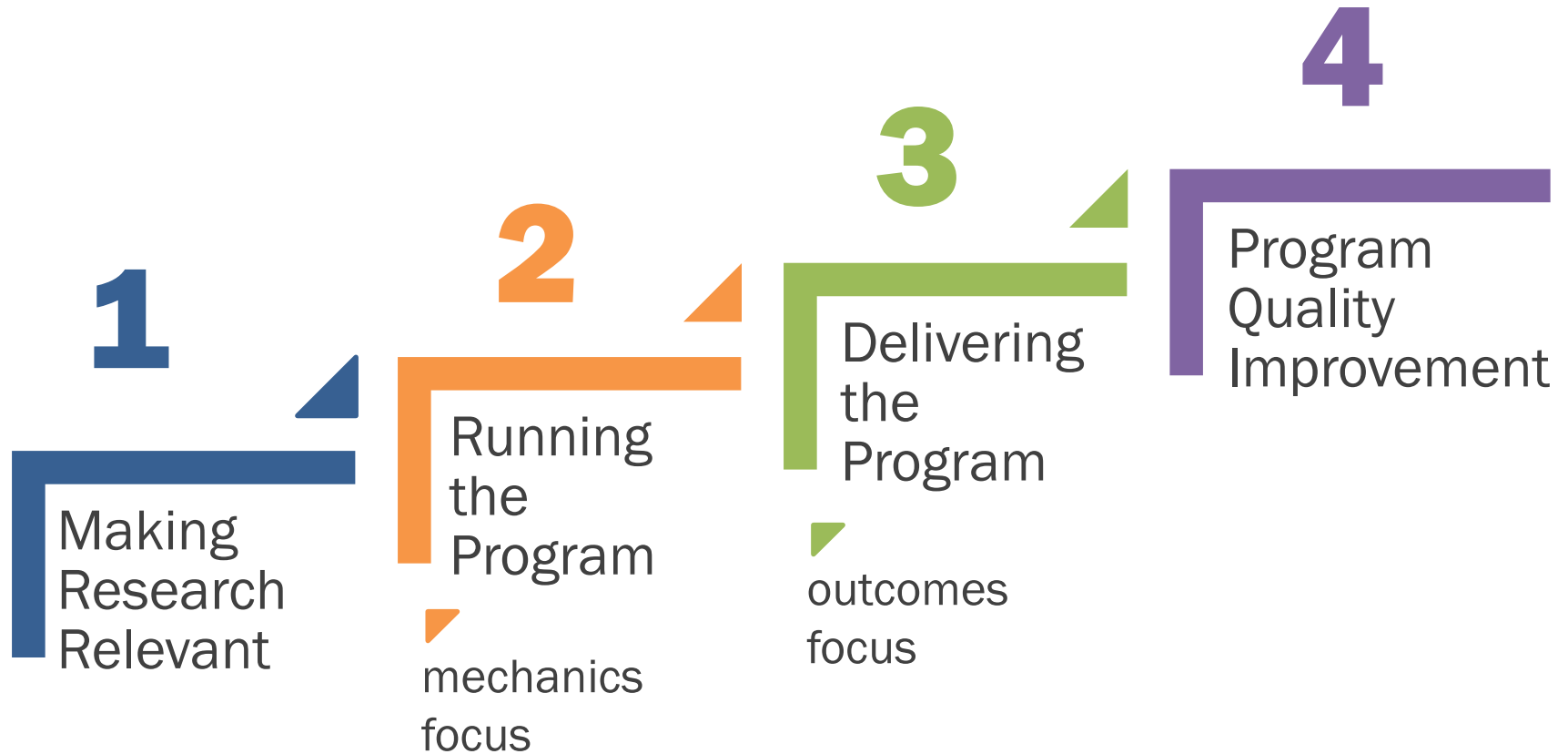
Successful completion of all courses earns a TRB certificate acknowledging your accomplishment



# Ahead of the Curve

Mastering the Management of Transportation Research and Training Program

## Four Core Courses: All Required





# Ahead of the Curve

Mastering the Management of Transportation Research and Training Program

## Elective Courses:

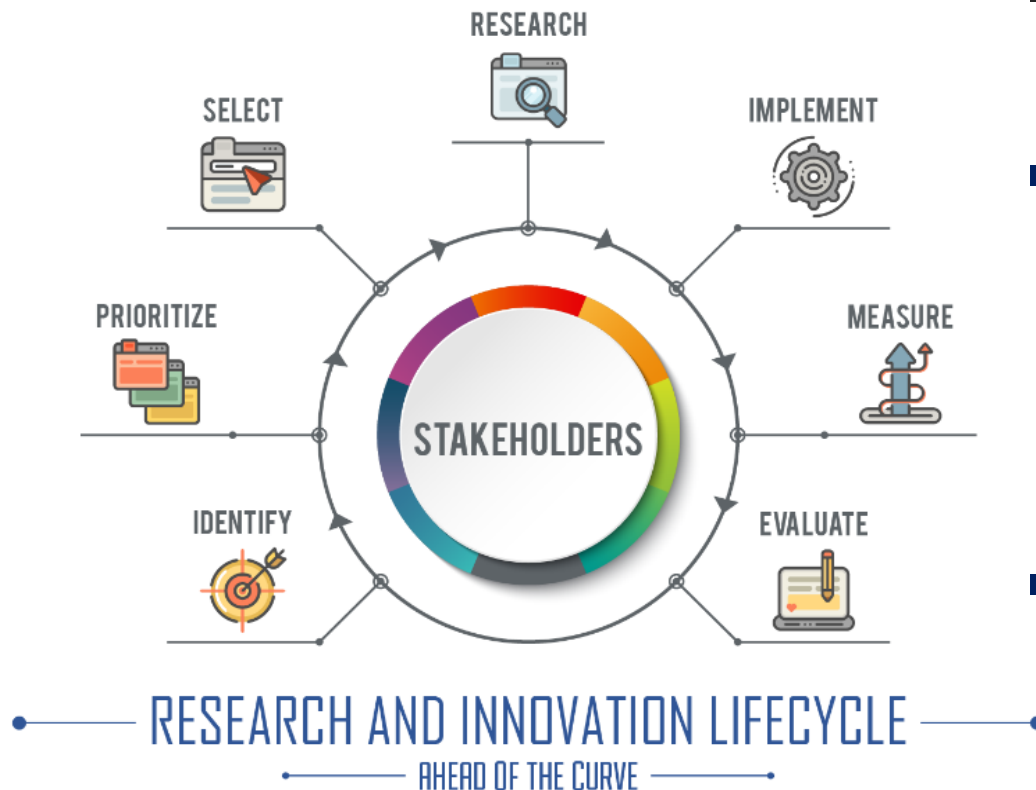
Four Required to Complete Training Program and Earn a Certificate

1. Effective Problem Statements
2. Performance Measurement
3. Information and Knowledge Management
4. Building and Engaging Research Champions
5. Innovation Management and Risk Management
6. Funding
7. Scientific Methods
8. Intellectual Property, Innovation and Research Implementation
9. Strategic Planning for Research
10. Building Trusted Credible Partnerships
11. Continuous Quality Improvement
12. Program Design



# Research and Innovation Life Cycle

Enduring concept for Research and Innovation Management



- All phases need to be considered
- Mastering the Art of Transportation Research Program Management requires touching all phases
- Quality in one phase doesn't automatically result in quality in other phases

# Course Offering History

Additional information on future offerings discussed at the end of today's session

- July 2015:** Introduction to Transportation Research Management
- June 2016:** Making Research Relevant, Part I <https://vimeo.com/173955141>
- July 2016:** Making Research Relevant, Part II
- January 2017:** Running the Transportation Research Program
- July 2017:** Program Quality Improvement
- January 2018:** Introductory Course Overview and Program Background
- July 2018:** Delivering the Program
- February 2019:** Strategic Planning for Research
- March 2019:** Building and Engaging Research Champions
- March 2019:** Intellectual Property and Innovation Management
- April 2019:** Performance Management

# Lessons Learned

- High interest in training courses
- Favorable reviews of online courses
  - Consider extending time however
- Need to maintain momentum to keep material updated and refreshed
- Slides can be updated easily

# Ahead of the Curve: Next Steps

- **Course instructor manual being finalized by NCHRP**
- **All course presentations and handouts will be distributed to new AOTC home location**
- **TRB Joint Subcommittee will maintain ownership of curriculum**

# Ahead of the Curve: Program Management Options

- AASHTO: Technical Service Programs
- FHWA: National Highway Institute
- State leadership/LTAP
- University-based training

# Ahead of the Curve: Next Steps

- **Transportation Pooled Fund (TPF) study to offer courses and manage remaining activities**
- **Lead state/agency to be determined**

# How to become involved

- Join TPF study
- Participate on joint subcommittee to refine and update curriculum
- Provide comments and take courses!