

# An Overview of the UTC Program

Open House at the  
Institute for Transportation

October 9, 2014

<http://intrans.iastate.edu/mtc/>



# History of the UTC Program

- Initiated in 1987, authorized the establishment and operation of transportation centers in each of the 10 standard federal regions
- Four additional centers added in 1991
- Shift to 10 regional centers and 23 other centers in 1998 under the Transportation Equity Act for the 21<sup>st</sup> Century



# Vision of the UTC Program

Internationally recognized centers of excellence, fully integrated within institutions of higher learning, that serve as a vital source of leaders who are prepared to meet the nation's need for safe, efficient, and environmentally sound movement of people and goods.

# MTC Background

U.S. DOT grant of \$2.6 million/year for 2 years

Requires 100% match (non-federal)

Grant will support research, education programs, leadership development, diversity, and outreach efforts.

5 partners

University of Missouri-Columbia (civil engineering)

University of Missouri-St. Louis (civil engineering)

Creighton University (business analytics)

Wichita State University in Kansas (industrial and manufacturing engineering)

Harris-Stowe State University

(HBU, business)

Seward County Community College

(HIS, pipeline safety)



# MTC Background

- Shauna Hallmark, MTC director ([shallmar@iastate.edu](mailto:shallmar@iastate.edu))
- Omar Smadi, Associate director ([smadi@iastate.edu](mailto:smadi@iastate.edu))
- Chris Williams, Associate director ([rwilliam@iastate.edu](mailto:rwilliam@iastate.edu))
- Judy Thomas, program assistant (jthomas@iastate.edu)
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# Goals of the UTC Program

1. Education
2. Human Resources
3. Diversity
4. Research Selection
5. Research Performance
6. Technology Transfer

# MTC Research Program

Theme is data driven performance measures for transportation infrastructure condition, safety, and project delivery

Competitive RFP process:

- Relevant to MTC theme

- 100% match (allowable non-federal sources)

- Involvement of students

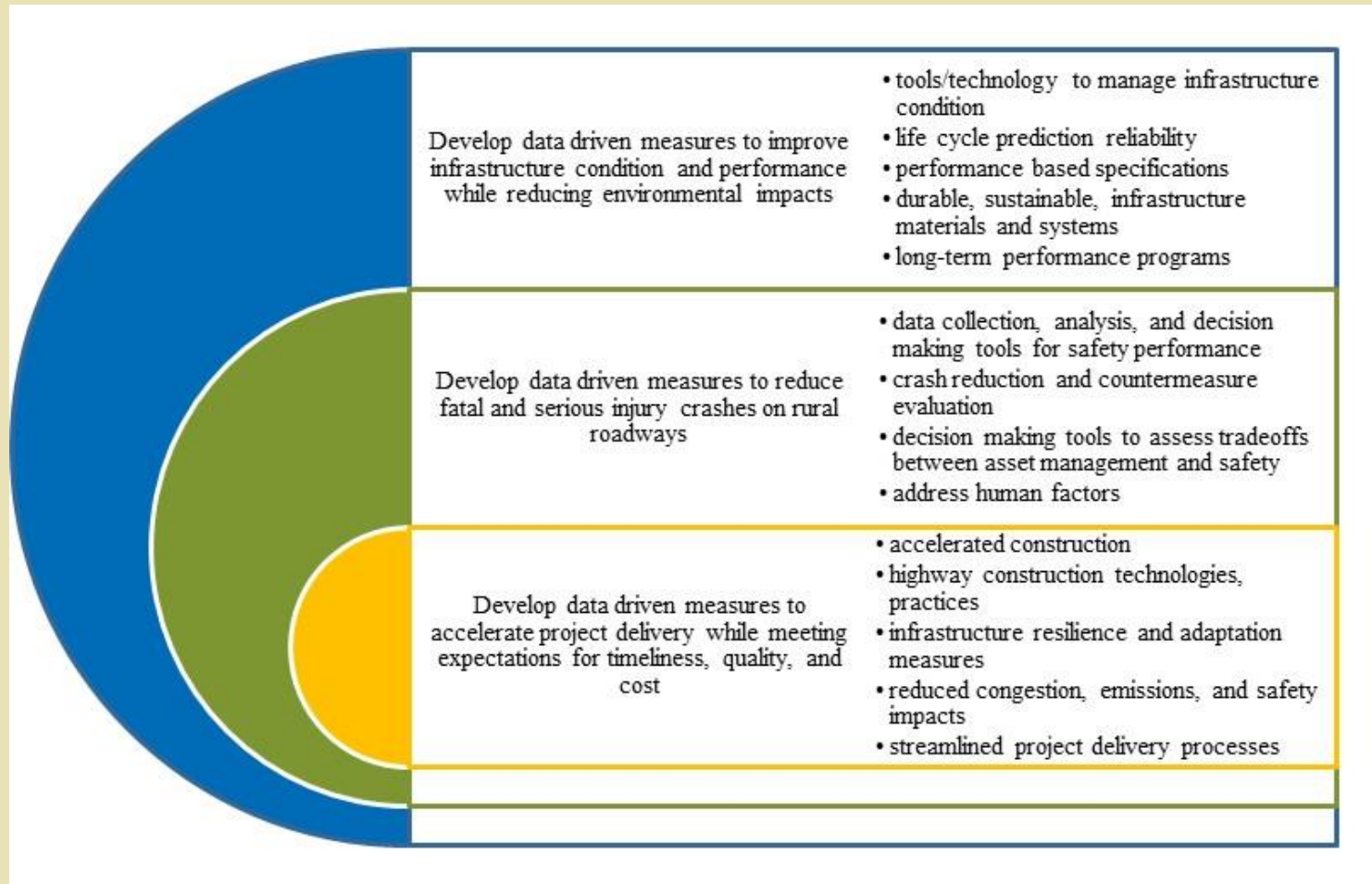
- Interdisciplinary

- Intermodal (highway, pipeline, air, etc.)



Encourage some basic, high risk research

# MTC Research Program





# MTC Research Program

## Year 1: Competitive Research Process

1. Proposals are due November 10
2. Follow proposal requirements
  - Proposal
  - Budget
  - Matching funds commitment letter
  - One- or Two-page resumes for key staff
3. E-mail completed proposals to Judy Thomas



<http://intrans.iastate.edu/mtc/index.cfm/research/initiatives>

# Potential Sources of Matching Funds

1. State funds:
  - IHRB
  - SPR program
  - ½% safety program
2. Local Agencies:
  - Cities
  - Counties
  - MPOs
  - RPAs
3. Industry Partners
4. NCHRP
5. With SHRP 2
6. In-Kind



# Selection Criteria

- Relevance to USDOT's strategic goals
- External/Internal review recommendations
- Technical merit
- Collaboration between partners
- Involvement of students
- Impact of research
- Available funding

# MTC Education/Workforce Development

- K-12
  - Go! e-zine magazine consists of articles, blogs, etc., designed to interest youth in transportation careers
  - Using research projects to develop (STEM)-based Curriculum Connections
  - Road Less Traveled
  - Developing transportation outreach kits for K-12
  - Distracted driving workshop (high school)



# MTC Education/Workforce Development

- Graduate/Undergraduate
  - Collaborate internship partnership (pilot with Iowa DOT)
  - Undergraduate research groups
  - Transportation scholars program
  - Summer compressed study abroad
  - Travel support for conference presentation
  - Graduate seminar hosted with partner institutions
  - Graduate certificates
- Training/retraining for working professionals
  - Expanded MS in Transportation program



# Transportation Scholars Program

- Maintenance of a 3.0 grade point average.
- Participation in a research project or research group.
- Attendance at the weekly transportation seminars each spring semester.
- Participation in the annual student research paper/poster contest.
- Mentorship of other students or participation in K–12 outreach activities.
- Presentation of research results at a conference or through a journal article.
- Participation in the Leadership Institute
- Participation in one or more transportation student organizations.

# MTC Technology Transfer/Outreach

- Implementation
- Regional research conferences
- Coordination of training courses within region
- All research projects require technology transfer/implementation plan



# MTC Leadership/Diversity

- Leadership
  - Provide leadership opportunities for students
  - Support participation in the Leadership Institute
  - Promote development of new faculty
- Diversity
  - Developing tracks for Taking the Road Less Traveled, a bi-annual STEM career conference for girls in K6-12
  - Work with HBU and HCI to recruit underrepresented students
  - Provide networking opportunities for under represented faculty and students

