



# ATI Strategic Plan Advancing Alabama's Economy and Quality of Life Through Transportation

THE UNIVERSITY OF  
**ALABAMA**

Alabama Transportation  
Institute

# Alabama Transportation Institute

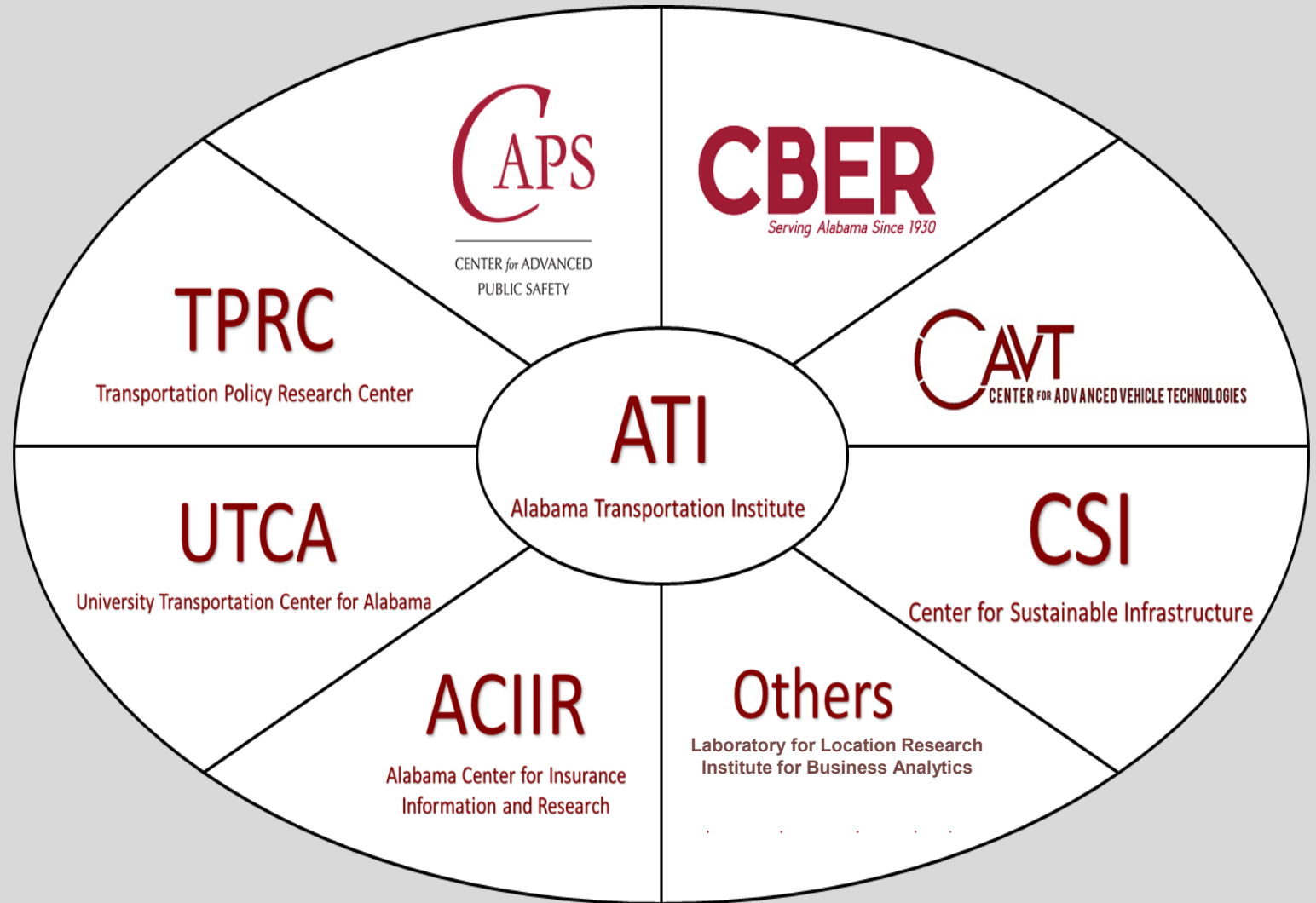
- What is ATI?
- How is ATI doing?
- Where is ATI going?



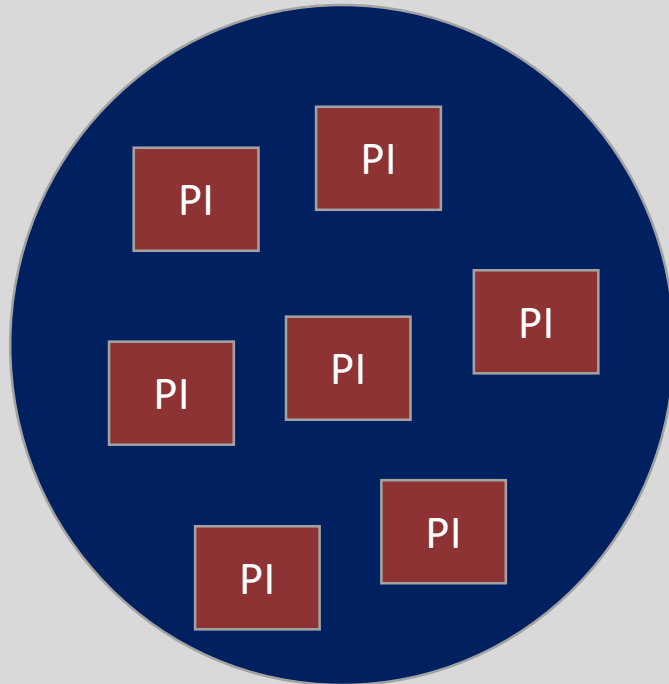
# What Is ATI?

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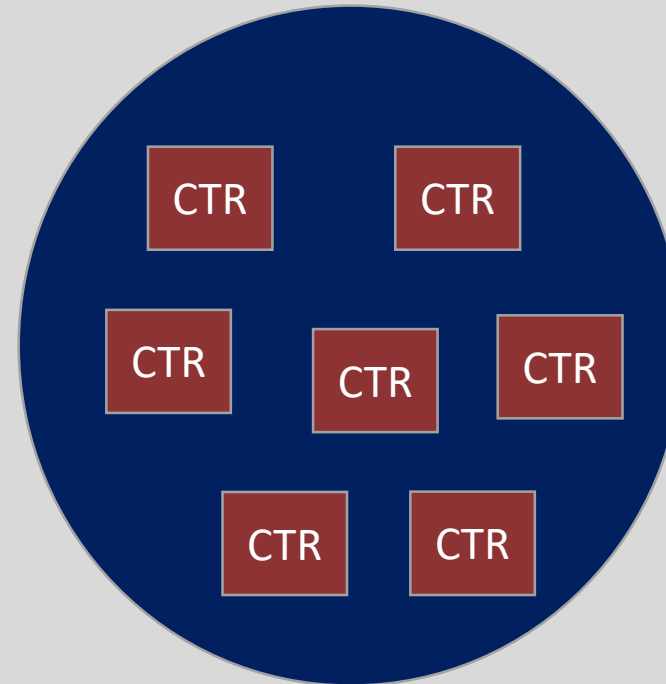
- ATI is a family of centers around a central hub
- Hub – Engages stakeholders and facilitates collaboration
- Around a theme of transportation



# Centers vs. Institutes



**Center**

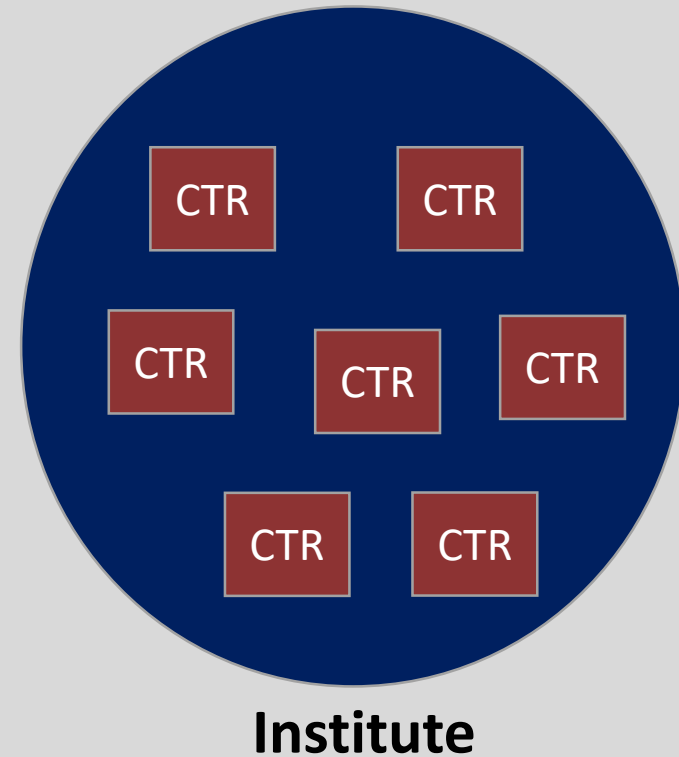


**Institute**

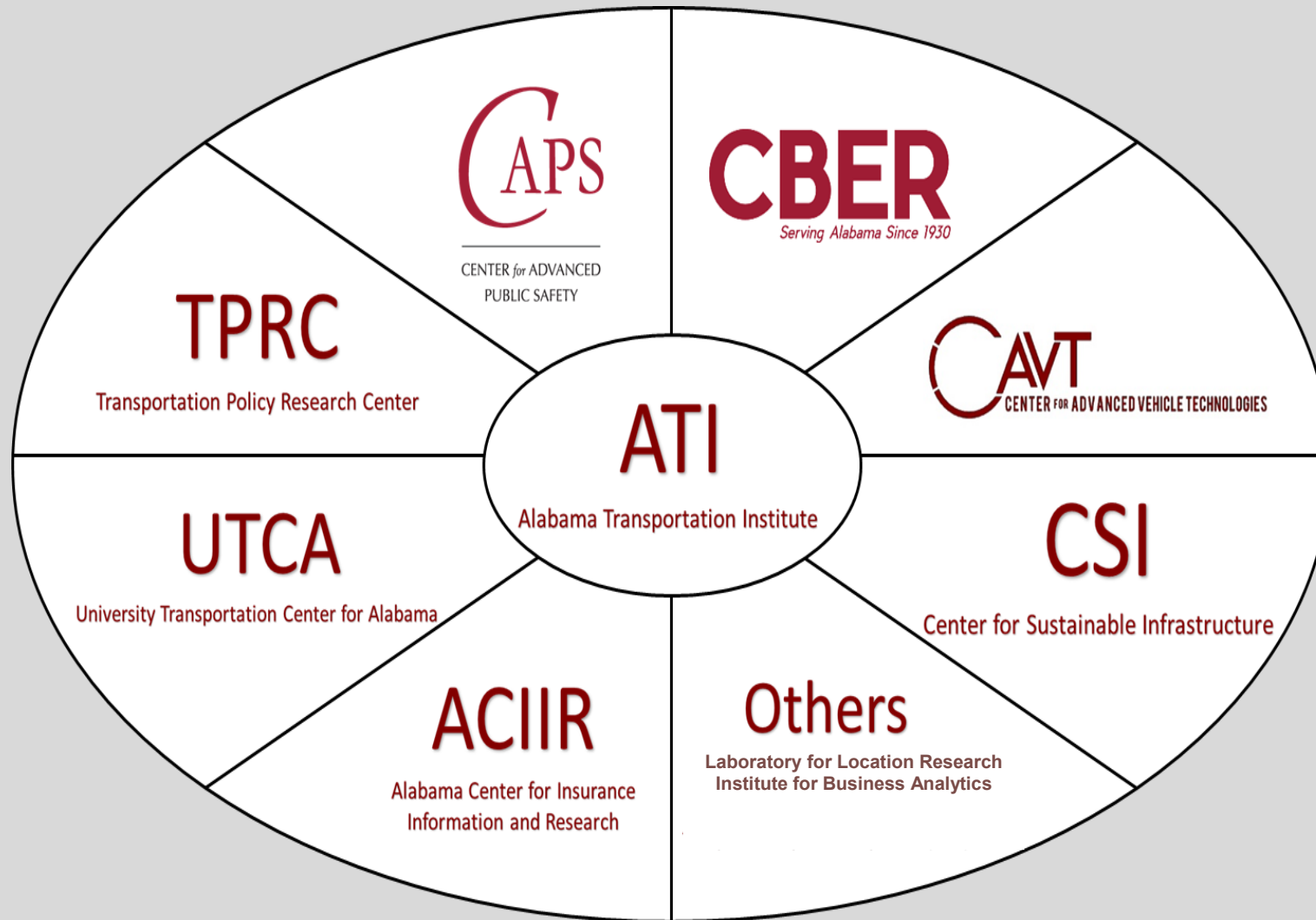
- Center = Collection of researchers
- Institute = Collection of centers
- Both are organized around a theme

# What's the Point of an Institute?

- Institutes = Provide a way to scale a collection of small to medium-sized centers into something larger that can compete as a unit for big funding.
- Institutes are then a place for centers to collaborate.



# ATI Family of Centers



# How is ATI doing?



# How is ATI Doing?

- \$100M in project impact to the state
- Research portfolio of 80-100 papers and reports
- Collaborative facility with ALDOT to support “living laboratory”
- Several centers with a history of success





# ATI Highlights 2019-20



- ATCMTD grant (ACTION) - \$16.3M to support traffic management technology development and deployment
- INFRA grant (Tuscaloosa) - \$6.87M in federal funding to support bridge replacement
- I-10 Bridge Report (Mobile) – Cost-benefit analysis for a proposed major I-10 bridge project
- Wiregrass SR-167 Report – Cost-benefit analysis for highway widening.
- Approximately 30 refereed publications and 12 proposals

# Alabama Transportation Center

- Joint with ALDOT and City of Tuscaloosa
- Enlarged traffic operations center
- More opportunities for practical collaboration
- Opening 2022

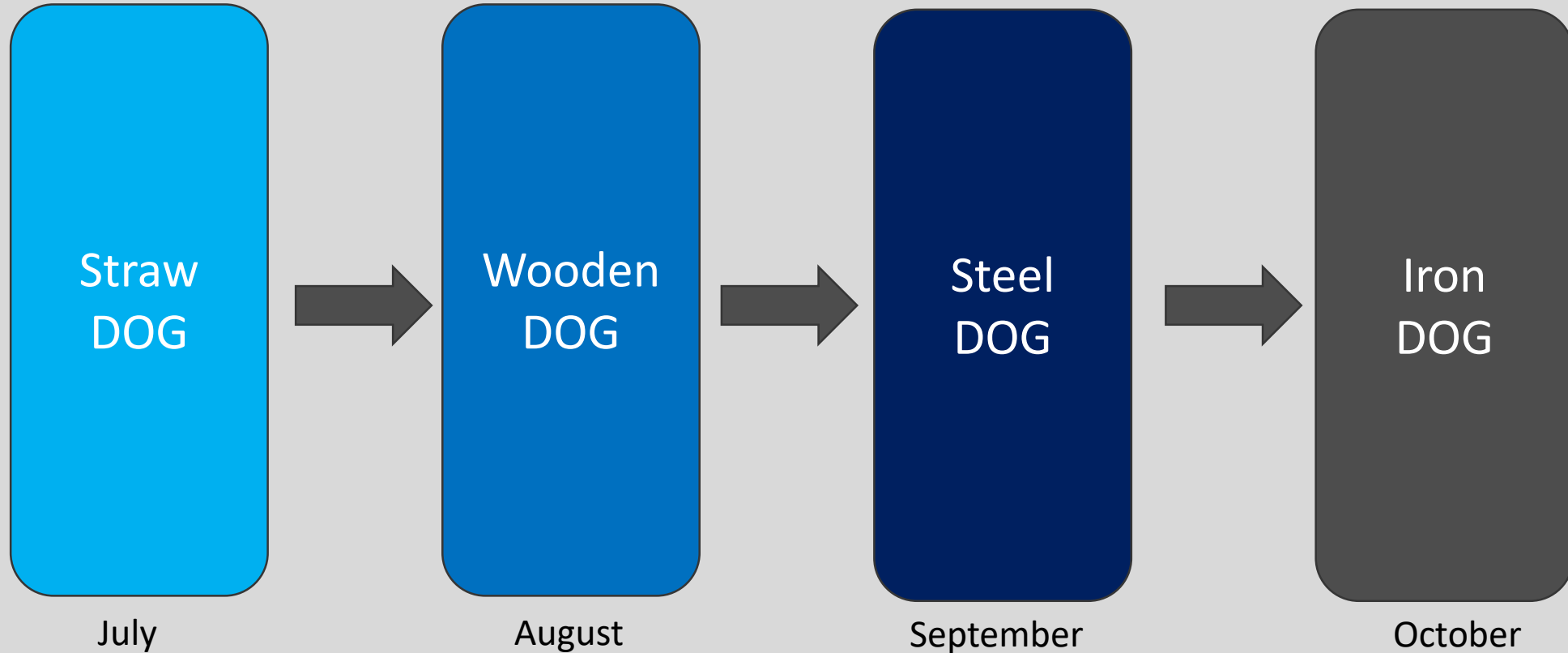


Where is ATI  
going?

# ATI Strategic Plan

- Mandated by the Office for Research and Economic Development
- Needed to guide the path forward
- Process initiated in March 2020:
  - Meetings and Conversations
  - Structuring stakeholders (Leadership Team, Executive Committee, Council of Transportation Centers)
  - Surveys
  - Presentations and meetings
- Town Hall – July 2, 2020
  - Post Town Hall survey - complete over the next few weeks
- Subsequent Town Halls – August and September
- Final version published this fall

# Stakeholder Engagement Going Forward



# Straw DOG Plan

# SWOT Analysis

	INTERNAL FACTORS	EXTERNAL FACTORS
POSITIVE	<b>STRENGTHS</b> <ul style="list-style-type: none"><li>• Several significant success stories in various centers</li><li>• Over \$30M in federal funding brought to state</li><li>• Energetic, engaged faculty</li><li>• Room for growth and a concomitant desire to move the needle on research</li></ul>	<b>OPPORTUNITIES</b> <ul style="list-style-type: none"><li>• Cities and counties need money for infrastructure that we can help with</li><li>• COVID-19 has brought opportunities for research universities if we can find them</li><li>• Many proposal opportunities in this space to build capacity</li></ul>
NEGATIVE	<b>WEAKNESSES</b> <ul style="list-style-type: none"><li>• No CFO or financial plan</li><li>• No transportation engineer in the leadership</li><li>• Little marketing and visibility of UA research in transportation or benefits to the state</li><li>• Limited inter-center transparency and collaboration</li><li>• Insufficient internal communication</li><li>• Few scalable standard business processes that can make the operation efficient</li></ul>	<b>THREATS</b> <ul style="list-style-type: none"><li>• COVID-19 could derail our state funding</li><li>• Lack of interest in our work product could derail future funding.</li><li>• Lack of ability to account for previous investment could derail future funding.</li><li>• Potential for lack of interest among UA faculty to collaborate with the transportation enterprise</li></ul>



# Straw DOG Mission Statement

The mission of the Alabama Transportation Institute at The University of Alabama is to facilitate and reflect world-class leadership in interdisciplinary transportation research that serves the State of Alabama and beyond.

# Implications of This Statement

- It is a “reflection” of the work that is going on at UA:
  - It doesn't necessarily do the work
  - It does tell the story about the work that is going on here
- It is a “facilitator” of “interdisciplinary” work
- The work that ATI facilitates and reflects is world class research that serves the state and beyond.

# Institute Research Themes

- We can't be good at everything
  - We aren't big enough
  - We aren't established enough
- We can't aspire to be good at everything
  - New areas of expertise are expensive to acquire
- Key questions:
  - What are we good at?
  - What do we want to aspire to be good at?
- I need your help to figure this out



# Institute Research Themes

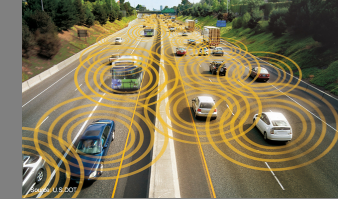
- Should be big ideas
- Should be ideas that go beyond the capability of a single center
- Should be areas that we are either:
  - Good at already
  - Areas of opportunity that we aspire to be good at and can afford to invest in



# Straw DOG Institute Research Themes



Digital Transportation



Connected Vehicles and Infrastructure



Advanced Vehicle Manufacturing



Fuel Economy and Electric Vehicles

Transportation Safety, Security and Sustainability



# What Is Digital Transportation?

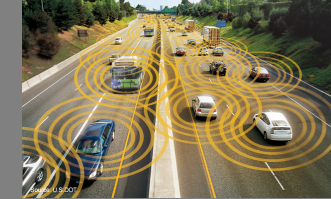
- Digital – Involves the acquisition of transportation data via digital sensors and systems
  - Could involve vehicles
  - Could involve infrastructure
  - Could involve enforcement, operations, freight, transit and commerce
- Some relevant areas to “digital”:
  - Analysis
  - Synthesis
  - Design
  - Security
  - Operations
  - Information sharing
- Nascent term



# Straw DOG Institute Research Themes



Digital Transportation



Connected Vehicles and Infrastructure



Advanced Vehicle Manufacturing



Fuel Economy and Electric Vehicles

Transportation Safety, Security and Sustainability



# Questions

- What is on this list that shouldn't be?
- What is not on the list that should be?
- Input will be solicited through upcoming surveys
- E-mails and conversations are always welcome



# DRAFT Strategic Plan



1  
SERVE THE STATE



2  
IMPROVE RESEARCH



4  
ORGANIZE FOR  
EFFICIENCY



3  
COMMUNICATE  
IMPACT AND  
OPPORTUNITY

1. Serve the State of Alabama.

2. Facilitate the transportation research, development, and innovation portfolio to expand the economy and improve quality of life in Alabama.

3. Communicate ATI's impact and future opportunities for engagement to stakeholders.

4. Organize to promote efficiency of operations and to communicate value.

# 1. Service to the State

- Provide mission-critical products and services.
- Respond to requests from state partners for assistance.
- Introduce new products and services for Alabama state and local government.
- Collaborate with state and local partners through facility co-location.
- Promote collaboration among centers in serving the state.

## 2. Facilitate Research

- Develop collaborative and interdisciplinary ATI-funding proposals.
- Direct research, development and innovation through ATI-funded seed projects.
- Utilize ATI personnel on funded research projects.
- Enhance the reputations of transportation researchers.
- Promote collaboration among centers to conduct transportation research.

# 3. Communicate ATI's Impact

- Develop a digital brand and presence
- Implement engagements with legislature, corporate and government
- Establish and maintain a transportation community of practice
- Become named and endowed.
- Establish an External Advisory Board and work with internal stakeholder groups.

## 4. Organize to promote efficiency and to communicate value

- Collaborate among transportation centers on shared needs – finances, proposal development, etc.
- Identify policies and procedures for how the centers work together.
- Identify shared infrastructure for the transportation centers.
- Identify and share metrics to validate and quantify our success.

# Evaluation Metrics

## Qualitative

- Mission-critical products and services that ATI contributes to
- Requests for assistance from external stakeholders
- New products and services produced by ATI
- Instances of successful collaboration from the co-located ALDOT TSM&O center
- Committee participation
- Digital publication artifacts

## Quantitative

- Federal proposals/awards
- Other proposals/awards
- Proposals/awards by external partners supported by ATI
- Percentage of external salary support for ATI personnel
- Peer-reviewed publications and citations
- Downloads of ATI products
- Accesses to digital artifacts
- Dollar value of gifts

# Strategic Plan Implications

- Service to the State is extremely important.
- Research needs to be impactful to society and have a reputational benefit to UA.
- Need to increase funding, especially federal.
- Need to increase and quantify research portfolio generally.
- Need to quantify and communicate impact generally.
- Need to optimize use of resources.

# Next Steps





# Monthly Town Hall Meetings

- Through September:
  - Focused on Strategic Plan
- After September
  - Will have a research topic each month
- **Focus on group presentations to present big, collaborative projects**
- Would like to hear from you, so need volunteers

# I Need Your Help

- There is still a lot I don't know.
- I really would appreciate your engagement.
- If you don't hear from me, poke me.
- Send me an e-mail and I would love to get together with you

# Questions?