

Highway Automation – Iowa Perspective

Iowa DOT Cooperative Automated Transportation

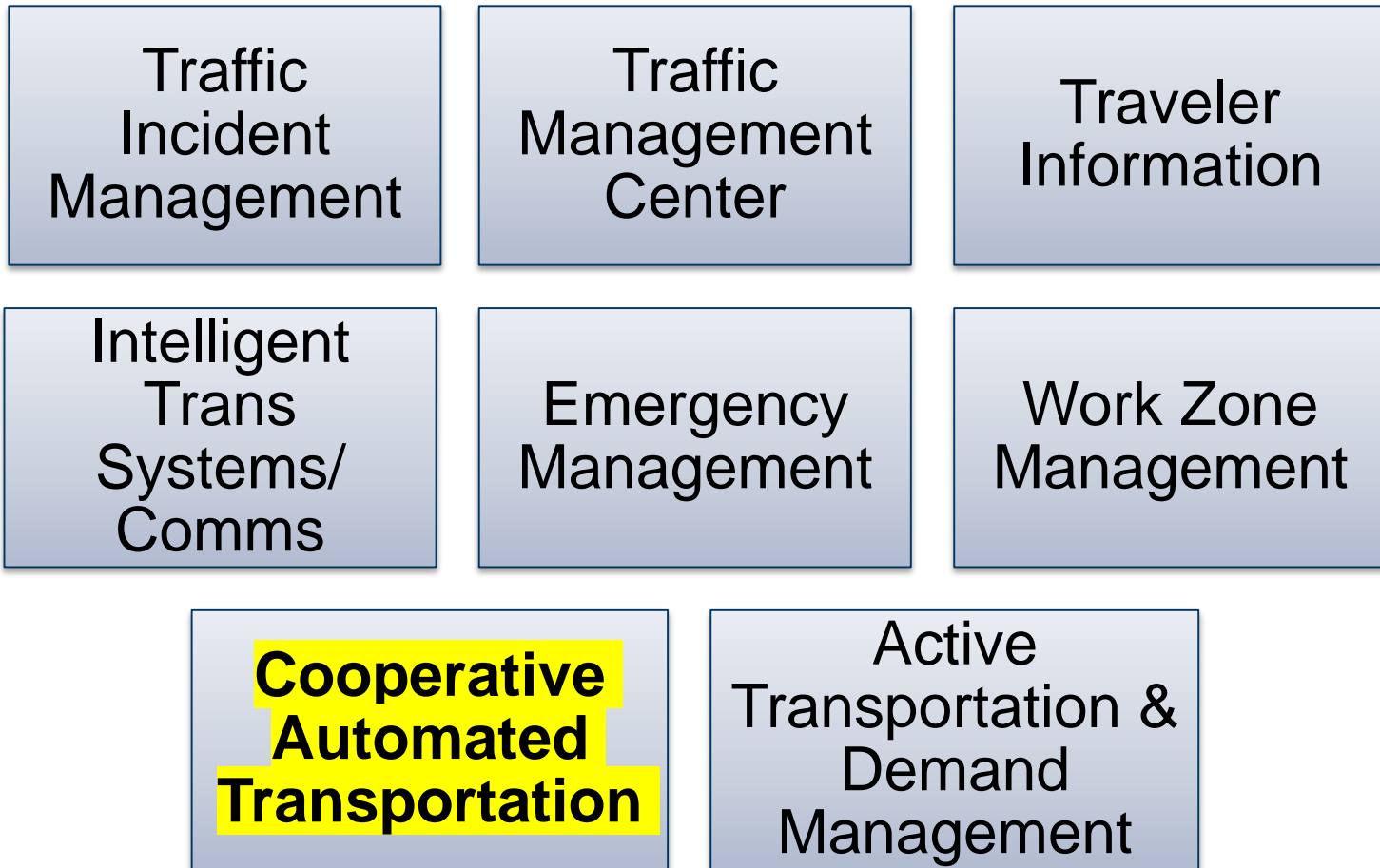


Meet Iowa!

- Agriculture state – Corn, beans, hogs, eggs
- Biking/walking conflicts
- Rural accessibility and mobility challenges
- Severe crashes under 25 or over 65
- Pressure on gas tax revenue
- 72% Congestion non-recurring



CAT and TSMO Service Layers



Iowa DOT's Potential Role in Cooperative Automated Transportation

- ***Support and Manage the Digital CAT Infrastructure***
- ***Prepare Iowa to be 'AV Ready'***



Iowa DOT Current CAT Efforts

- **Data – I-380 Automated Vehicle Project**
- **Infrastructure – I-80 Automated Corridor Study**



Iowa DOT Current CAT Efforts

Automated Vehicle Project



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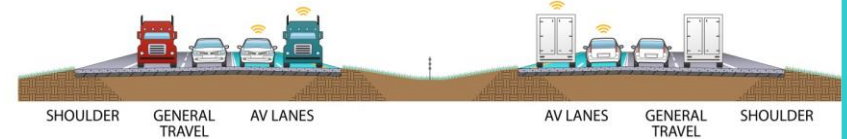
Data

I-80 Automated Corridor Study



4 WESTBOUND LANES

4 EASTBOUND LANES



Infrastructure



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Cooperative Automated Transportation Service Layer



Iowa DOT Current CAT Efforts

- **Data – Automated Vehicle Project**
- **Infrastructure – I-80 Automated Corridor Study**
- **Drafting CAT Service Layer Plan**



Cooperative Automated Transportation

The 'Boring' Stuff

- ***Business Aspects needed for CAT:***
 - Driver education and training
 - Vehicle registration, licensing, and insurance
 - OS/OW Permitting; CMV permitting implications
 - Data management and security
 - Information sharing with Iowa residents and travelers
 - Organizational/workforce changes needed to institutionalize CAT
- ***Other aspects of the CAT Service Layer Plan:***
 - “Future-proofing Iowa” – not specific to any one technology, but rather keep Iowa open to new technologies as they emerge
 - Identify likely impacts to Iowa DOT Highways Division bureaus and offices
 - Defining roles for CAT pilots and public supported deployments of CAT approaches

Iowa DOT Current CAT Efforts

- ***Data – Automated Vehicle Project***
- ***Infrastructure – I-80 Automated Corridor Study***
- ***Drafting CAT Service Layer Plan***
- ***Formed Iowa Advisory Council on Automated Transportation***



Advisory Council on Automated Transportation

Energy/Electrification

Safety

Policy and Legislation

Research, Testing, and
Deployment

Education

Mobility

Insurance

Freight and
Commerce

Economic
Development



CAT – Ongoing Gap Filling Research



Technology Research – Considerable research completed, underway, and planned



Drivers/Travelers Reactions to CAT - Considerable research underway and planned



Possible Research Gap – The *business aspects around institutionalizing CAT* into a State or local DOT

- The day-to-day activities & structure needed to operate & manage a safe, equitable transportation system that benefits from Cooperative Automated Transportation

