



Michigan Connected Vehicle Initiative

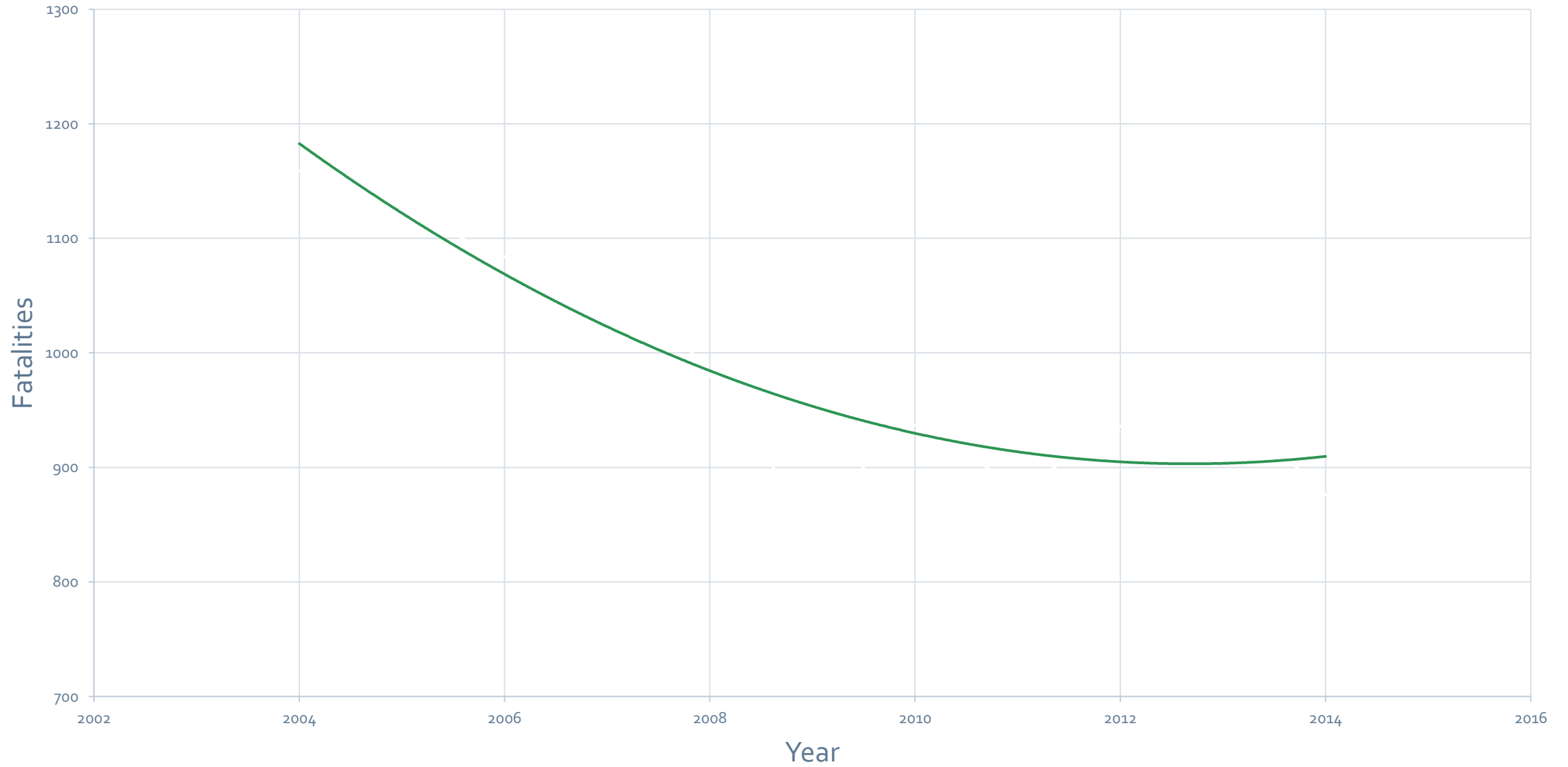
ADVANCING SAFETY AND OPERATIONS THROUGH TECHNOLOGY

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Miami, FL May • 2016



Michigan Traffic Fatalities



MICHIGAN FOCUS AREAS

1

Infrastructure

2

V2I
Applications

3

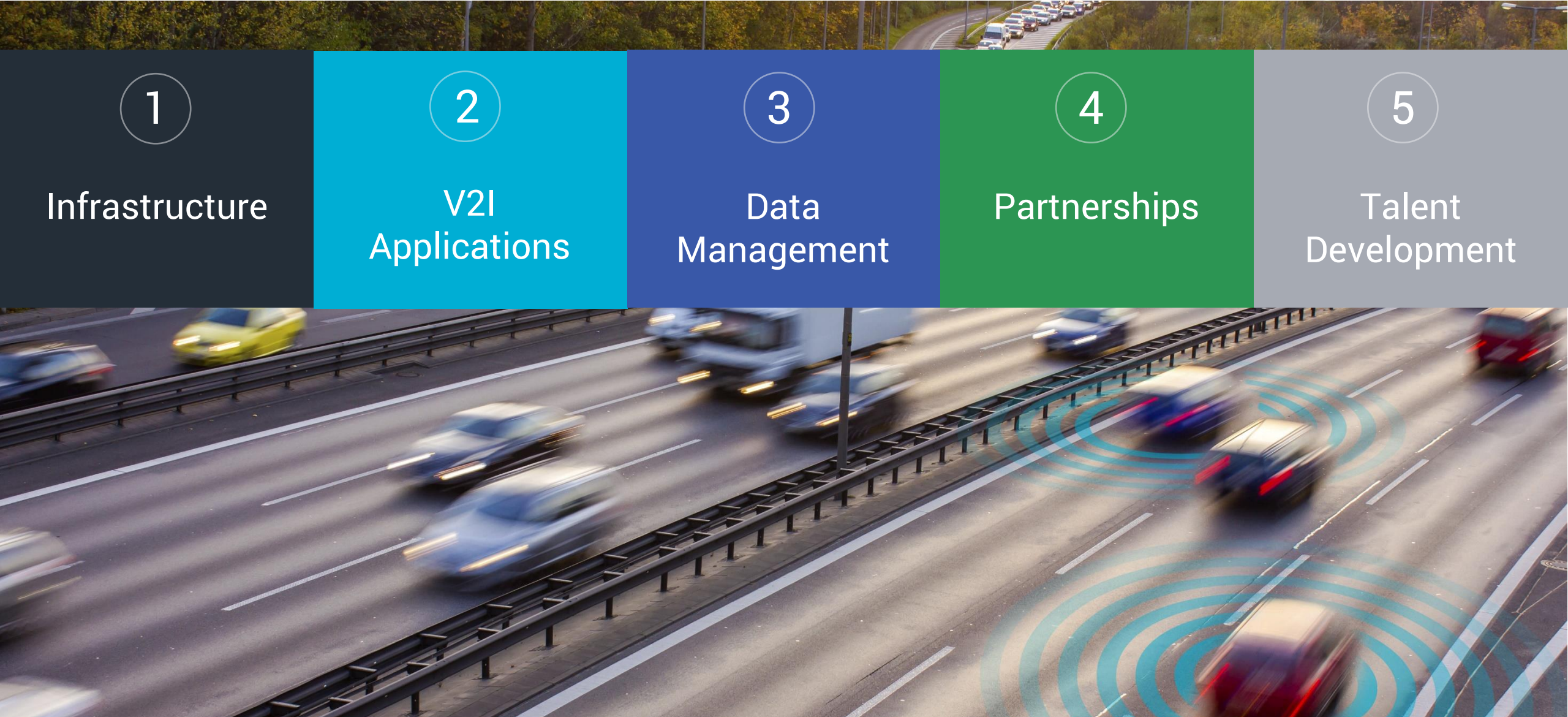
Data
Management

4

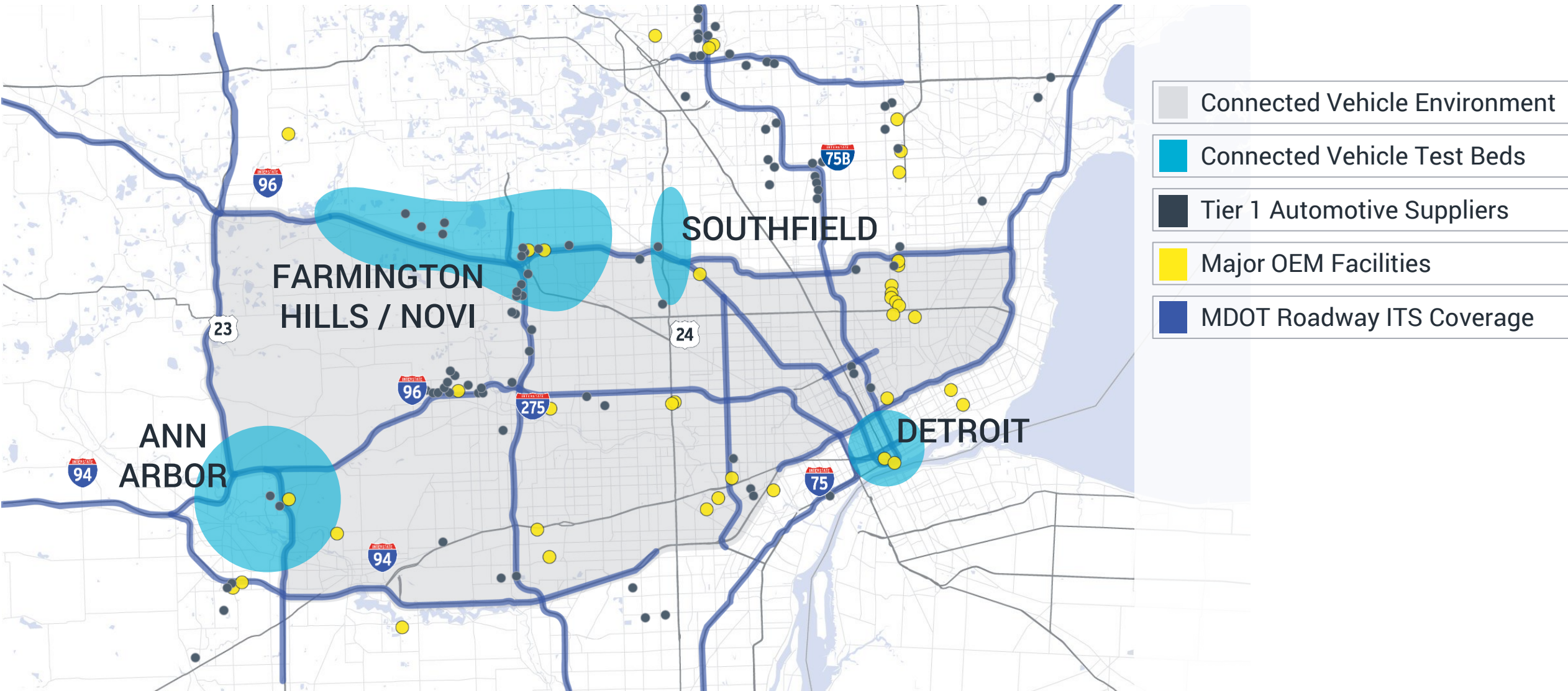
Partnerships

5

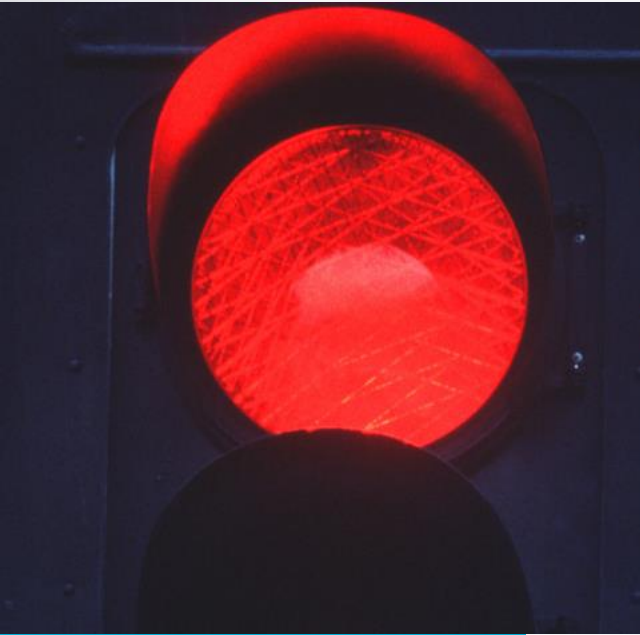
Talent
Development



Southeast Michigan Connected Vehicle Assets



Initial Pilot Applications



Red Light Violation
Warning



Work Zone
Warning/
Management



Road Weather
Management



Pavement
Condition

Truck Parking Information and Management System (TPIMS)



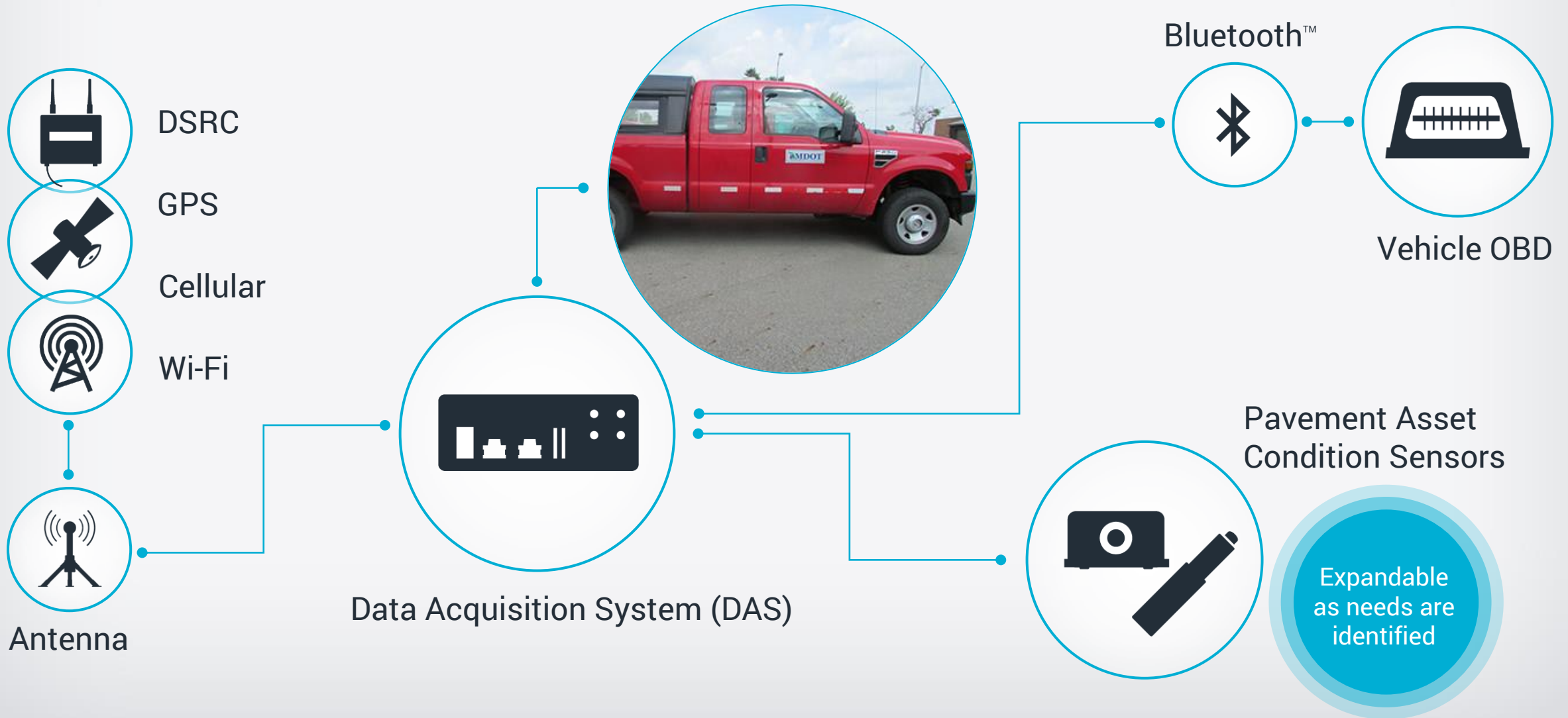
Federal
TIGER Grant
Awarded



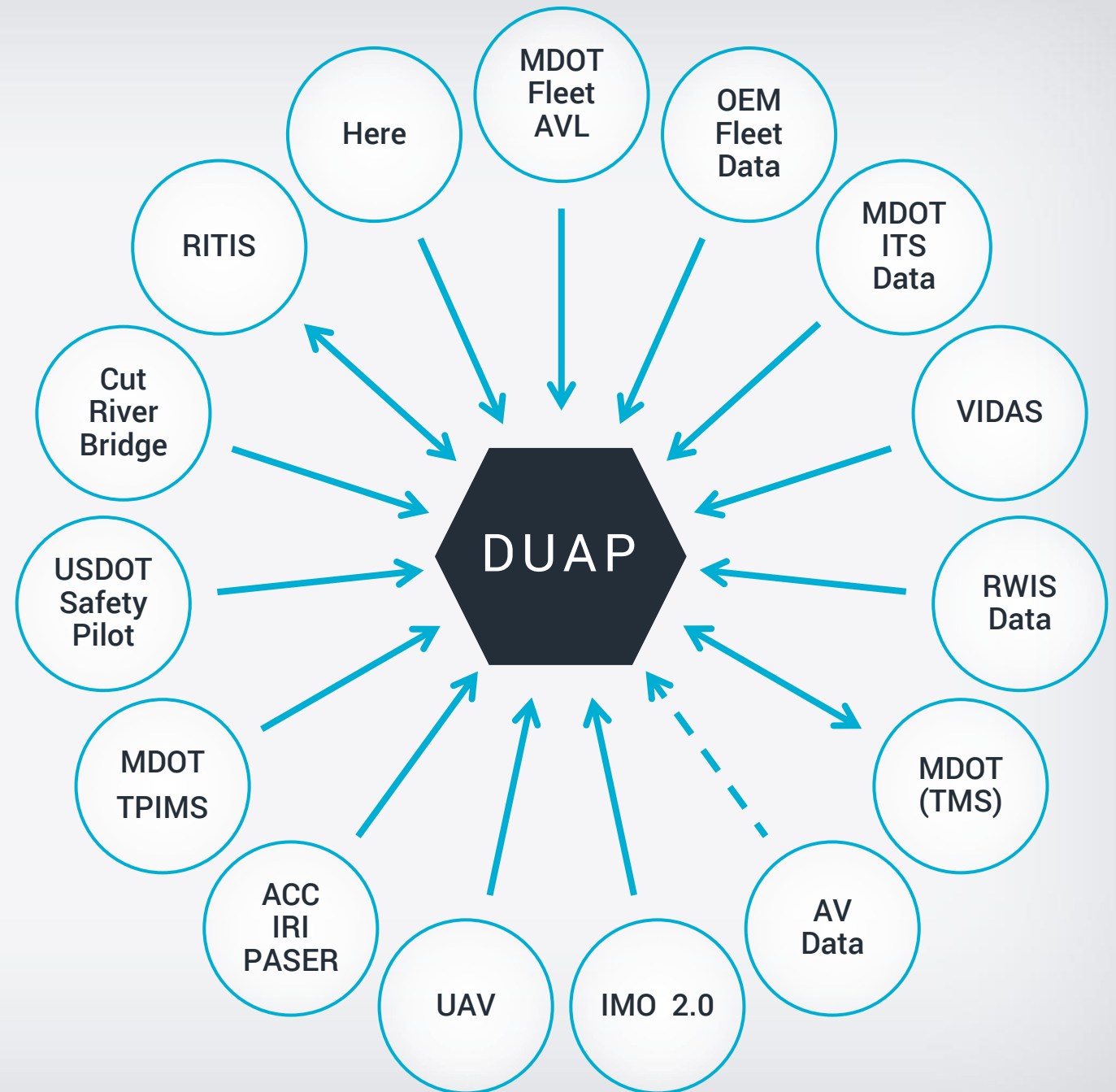
Critical Connected Vehicle Environment Element:
Equipped vehicles to engage in the system. MDOT is accomplishing this through a combination of partnerships and state vehicle fleets.



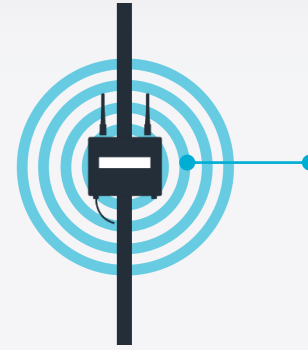
MDOT Fleet Deployment



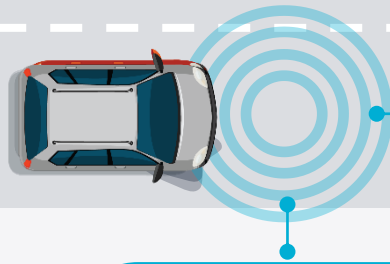
MDOT's Data Use Analysis and Processing (DUAP) program is pioneering the collection and fusion of CV data with a wide range of data sources.



Pavement Condition Monitoring



roadside unit sends pothole data to operations center



Vehicle drives over pothole in pavement

Sensors in vehicle detect sharp acceleration at location from the pothole strike, stores data

Maintenance crews respond to fix pothole

Vehicle broadcasts location (and dots of others), nearby roadside unit dispatches maintenance crew as it drives past

MDOT receives data from that vehicle (and dots of others), dispatches maintenance crew



Heat map of pavement conditions

V2I Deployment Coalition

Issue	TWG 1 Initiatives	TWG 2 Research	TWG 3 Partners	TWG 4 Guidance	TWG 5 Standards
Issue 1: V2X Applications	P	S	S	S	S
Issue 2: Complementary Communications to DSRC	N	P	N	N	N
Issue 3: V2I Data	N	S	P	N	S
Issue 4: Patents-Intellectual Property	N	P	N	N	N
Issue 5: Security	No action planned at this time				
Issue 6: V2I Outreach	N	S	N	P	S
Issue 7: Understanding the Benefits and Costs of V2I Deployment and Operation	S	S	P	S	N
Issue 8: V2I Standards	N	N	N	N	P
Issue 9: Understanding V2I Liability Assignment	N	P	N	S	N
Issue 10: V2I Synergies with Other Emerging Technologies	No action planned at this time				
Issue 11: V2I Consumer Messaging	N	N	N	P	N
Issue 12: V2I Multimodal Applications	No action planned at this time				
Issue 13: Infrastructure Processes as V2I Obstacles	P	N	N	S	N
Issue 14: Federal V2I Policy Statement	P	N	N	S	N
Issue 15: Maintaining V2I Infrastructure	P	N	N	N	N
Issue 16: Operator and OEM Goals for V2I	N	N	P	N	N

Communications

Applications

Talent

Research

Data

Infrastructure

Vehicles

Get Engaged

Michigan is Open for Business for CV Partnership Opportunities