James Barna
DriveOhio Executive Director

DriveOhio
The Future of Smart Mobility
7th largest population in U.S.

11,613,423
Ohio Trends

4th largest Interstate System

83% of work trips are singular drivers

67% projected increase in freight truck traffic by 2040

115.6 Million Riders in 2012

11% Decline through 2016
OHIO IS READY
The Future of Smart Mobility will continuously Drive Ohio’s preparation and leadership for the future of transportation technology.

January 18, 2018, Governor Kasich signed an Executive Order establishing DriveOhio.
Department of Taxation
Bureau of Workers Compensation
The Four Pillars

Safety  Reliability  Mobility  Workforce

Goals

✓ Demonstrate Connected Autonomous Vehicle technology in Ohio
✓ Develop frameworks for uniform Connected Autonomous Vehicle deployment in Ohio
✓ Prepare Ohio for Electric Vehicles with public/private infrastructure investments
✓ Be the single point of entry for Autonomous Vehicle companies wanting to test in Ohio
✓ Establish a data governance framework to guide data protection
✓ Capture the value of data
✓ Market Ohio’s success in Autonomous Vehicle testing
2018-2019 Statewide Projects

- Smart Mobility Corridor
- SmartLane
- Connected Marysville
- Cincy/Dayton Workforce Corridor
- Lake Effect Corridor
- Ohio Turnpike
- Smart Columbus
June 2016- City of Columbus Won the US DOT $40 Million Smart City Challenge

- Awarded Additional $10 Million Grant from Paul G. Allen’s Vulcan Inc.
- Nearly $500 Million in Matching Pledges from Public and Private Sector Partners
- Outcome: A Safer, More Mobile and Sustainable City

SMARTCOLUMBUS

VISION

ACCESS TO JOBS | SMART LOGISTICS | CONNECTED RESIDENTS | CONNECTED VISITORS | SUSTAINABLE TRANSPORTATION
US 33 Smart Mobility Corridor
ODOT, TRC, OSU, Union County, Marysville, Dublin: $5.9 Million ATCMTD Grant; and $16 Million ODOT Investment

Small Town, Lower Traffic Volumes
10% Penetration Rate with 1,200 vehicles Connected vehicles won’t get lost in the crowd

Home of Honda’s largest manufacturing and R&D facilities in North America
End user feedback allows for “right size” design
Award: June 12, 2018
Completion: Spring 2019
Length: 9 Miles
Uses and Technology:
- Variable Speed Authority
- Congestion Driven Lane/Shoulder Use
- Overhead Gantry Will Display Posted Speed Limits and Designated Lane Use
- Harmonize Peak Hour Traffic
US 33 SMART MOBILITY CORRIDOR

- Transportation Research Center
- Honda
- NHSTA Vehicle Research Center
- Connected Marysville
- MARYSVILLE
- 40+ Manufacturer & Suppliers
- Smart Columbus
- OSU Center for Automotive Research
- DUBLIN
Phase I (2018)

Phases II & III (2019)
Completion: **2019**  
**Length:** 35 Miles  
**Uses and Technology:**  
- Open-road and controlled testing environments  
- DSRC enabled  
- Concentration of connected vehicles  
- Smart product evaluation
Completion: *Spring 2019*
Length: 60 Miles
Uses and Technology:
- Variable Speed Authority
- Opportunity to partner w/ telecom to advance 5G infrastructure w/ fiber backhaul
- Roadside DSRCs and units onboard public service vehicles
- Additional dynamic message signs, traffic cameras & visibility sensors
Executive Order

How to Test or Operate Vehicle in Ohio

• Register with DriveOhio
• Assure the vehicle can operate safely
• Monitor the vehicle at all times
• Cooperate fully with law enforcement
• Be able to intervene if the vehicle fails

Ohio Autonomous Vehicle Pilot Program

• Assists local governments in working with automotive and technology companies to advance technologies in their communities.
• Municipalities can work with DriveOhio and create an inventory of testing locations that offer a variety of traffic and terrain scenarios.
• Link manufacturers to those communities that are encouraging testing.
UAS
Operations
35 DOTs Implementing UAS for a variety of business functions

14,600 Savings In user delay cost in a urban area for shutting down a lane

80% Reduction mapping where UAS can be used

95% Reduction bridge deck inspections where UAS can be used
93 Requests
Bridge Inspections
Facility Inspections
Communications

44+ ODOT Projects From Communications to Bridges Inspections.
Some are Reoccurring

40 Completed in 2018
Data Collection

- Aerial Photography/GIS
- Exterior/interior Inspections
- Construction Monitoring
- Traffic Monitoring
- Quick Clear Operations/Emergency Management
- Communications/Promotional Videos
- Structures/Facilities Inspections
Data Collection – Disaster Response
1.1 Million
Research for UAS
Supporting Transportation

750,500
Facilities and Bridge Research

5.9 Mil
UAS Traffic Management Research (UTM)
Research for UAS Supporting Transportation
Unmanned Aircraft Traffic Management Solutions for the State of Ohio
Outreach

GDBAA Companies
- Battelle
- GE Aviation
- Swift Radio Flyers
- AeroVironment
- L-3 Technologies
- Workhorse Group
- Skyward LTD
- Elbit Systems of America LLC

Academia
- AFIT
- OU
- UC
- OSU
- Sinclair
- WSU
- Central State University

Military
- AFRL
- Ohio National Guard

UTM Companies
- Verizon
- Lillium Jet
- Uber Air
- Gannet Fleming
- NASA
- Lyft
- Bell
- Airbus
SAVE TIME USE

DAYTON AIR TAXI SERVICE
Non-Scheduled Air Transportation

Call THE SOUTH DAYTON AIRPORT WA-2119

BUY WAR BONDS
QUESTIONS

James A. Barna, P.E.
Executive Director, DriveOhio
614-387-5175

jim.barna@drive.ohio.gov
@barnadriveohio
drive.ohio.gov