# Infrastructure Webinar

MGA

America's Smartland

Midwestern Governors Association

May 22, 2018

# The Smartland: Prepared, Agile and Empowered for the Future - Workforce, Infrastructure, Energy & Life

http://www.midwesterngovernors.org/chairagenda.htm

http://www.midwesterngovernors.org/AgileWorkforce.htm

# Jim Barna

DriveOhio Executive Director

DriveOhio

The Future of Smart Mobility

**7th largest**
population in U.S.

**4th largest**
Interstate System

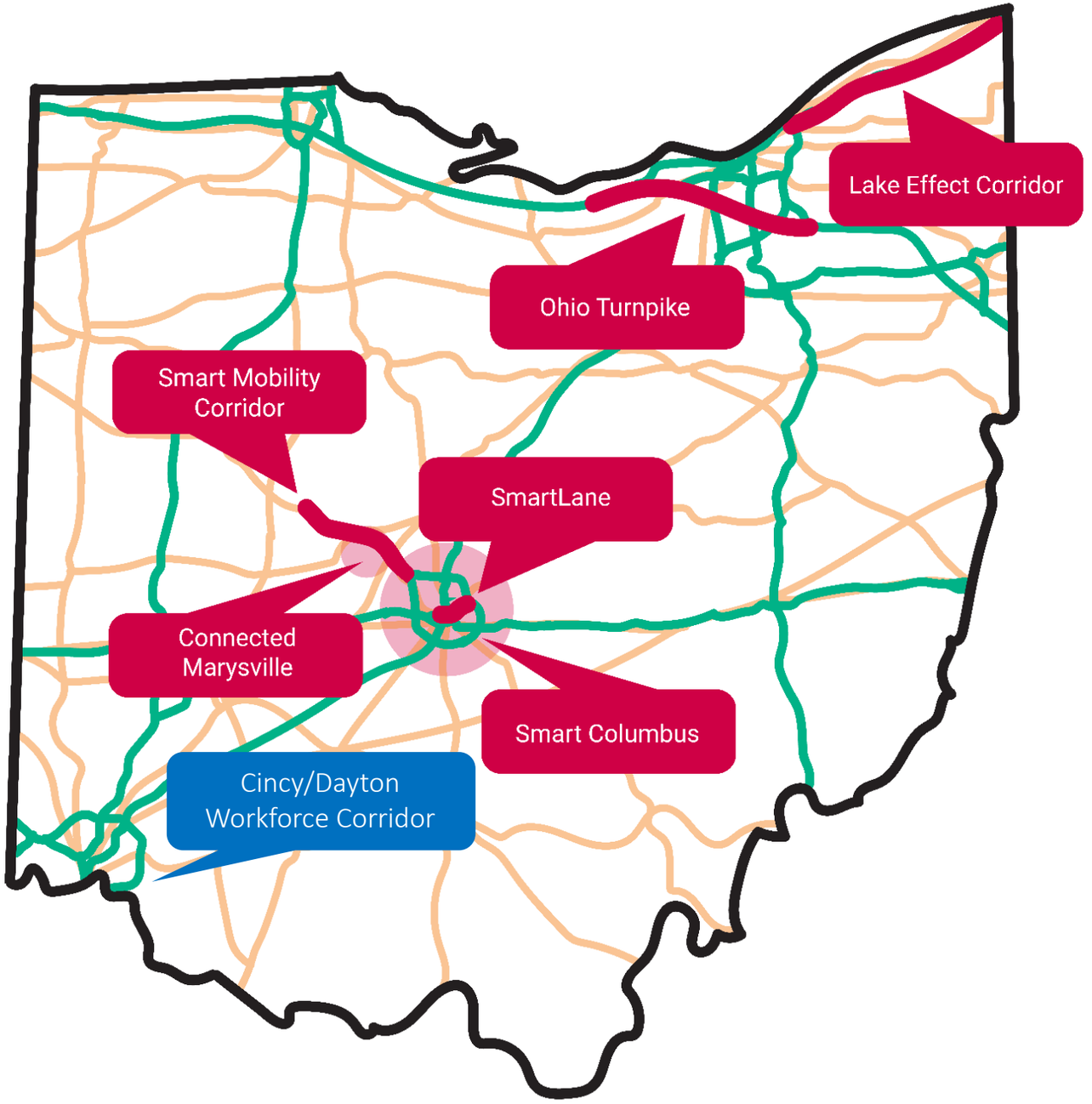
**303,282**
Crashes

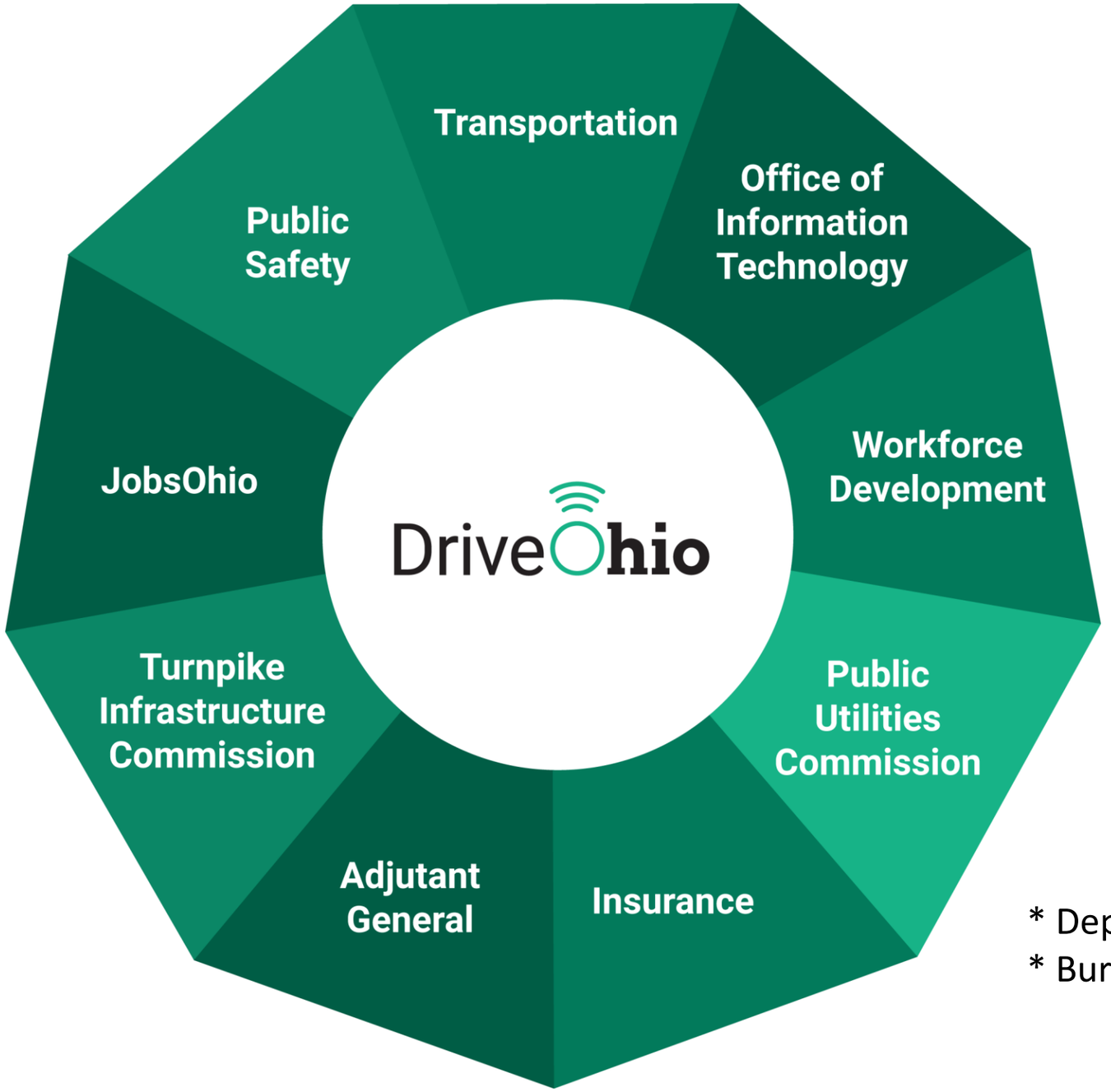
**1,179**
Fatalities

**83%**
of work trips are singular drivers

**67%**
projected increase in freight truck traffic by 2040

# 2018-2019 Statewide Projects






* Department of Taxation
* Bureau of Workers Compensation

# WORKING GROUPS

# 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.

# Next Steps

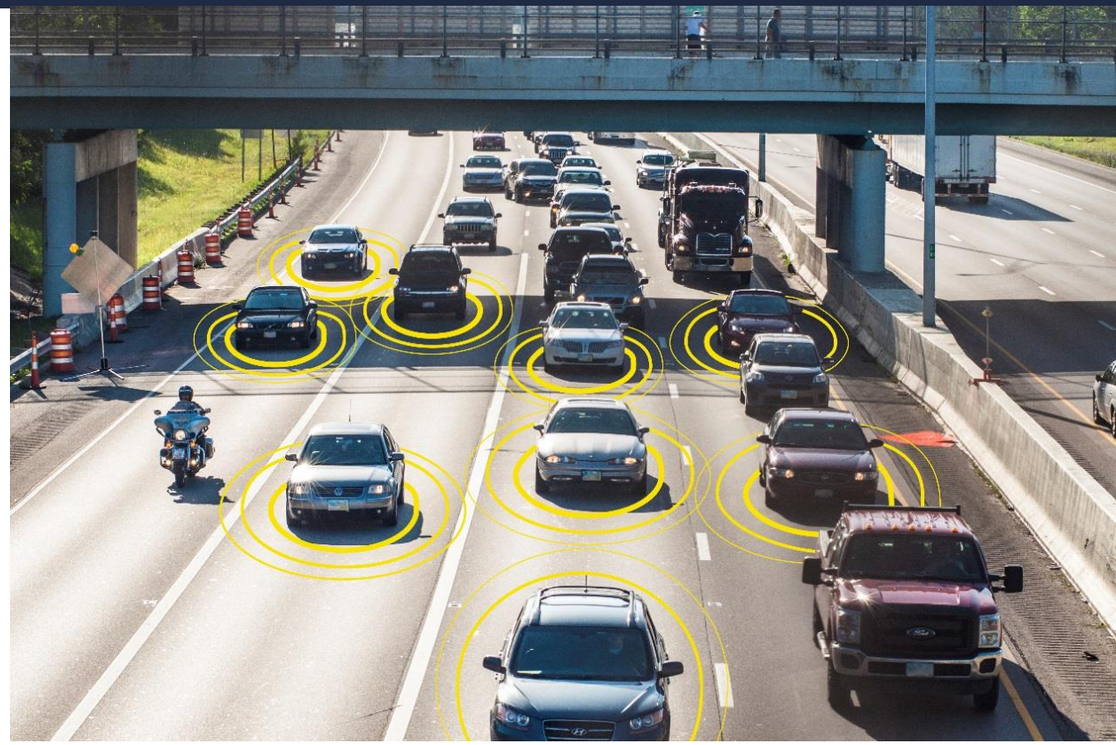
1. **Smart Mobility RFP**
   - A Statewide Plan for Smart Mobility
   - Systems Engineering Analysis
   - Data: Analysis, Management and Security
   - Public-Private Partnership (P3) Opportunities

2. **Connected Marysville**
   - 400 volunteers
   - connect/disseminate data

3. **Unmanned Aircraft Traffic Management Solutions**

4. **Address State's Autonomous Parameters**

5. **Data Transmission Model**



# Questions?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# Expanding Broadband to Southeast Ohio

## Digital Connectivity as a Societal Enabler

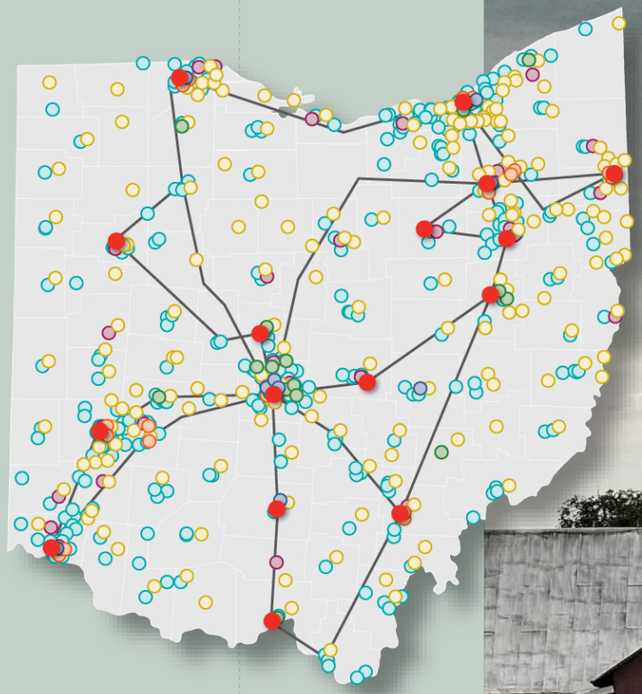
Stu Davis & Spencer Wood
Ohio Department of Administrative Services,
Office of Information Technology

Laying the Foundation:

# Utilize an Underused Network

In 2010 Ohio's statewide high-speed educational research network was significantly underutilized and our public safety and first-responder communication network was using an outdated, expensive-to-maintain system.

In addition, there were areas of the state, most notably southeast Ohio, where residents, schools and businesses without reliable internet and mobile phone access due to challenging terrain and lower population density, making providers reluctant to serve the area.




- OARnet and the State of Ohio agreed to expand the network for statewide strategic use.
- OARnet was upgraded to create a 2,240-mile fiber-optic 100G backbone robust statewide network, which provides high-speed connectivity to Ohio's colleges and universities, K-12 schools, public broadcasting stations, academic medical centers, state and local governmental entities, and partnering research organizations.


# Driving Synergies

## Expanding the Reliability & Capabilities of Public Safety Networks

Enhancing public safety, first responder and law enforcement communication infrastructure was a central element of the overall strategy to support the State's core remit of public safety and protection.

Combining OARnet and the State's Multi-Agency Radio Communication System (MARCS) for emergency services and first responders significantly expanded the reach and capabilities of the MARCS system.

- MARCS had been running on a low capacity, aging copper-wire system that was not providing the bandwidth and reliability needed.
- Fiber connectivity was implemented to 90+ tower locations that connected to OARnet's fiber backbone strengthening MARCS' speed and reliability.

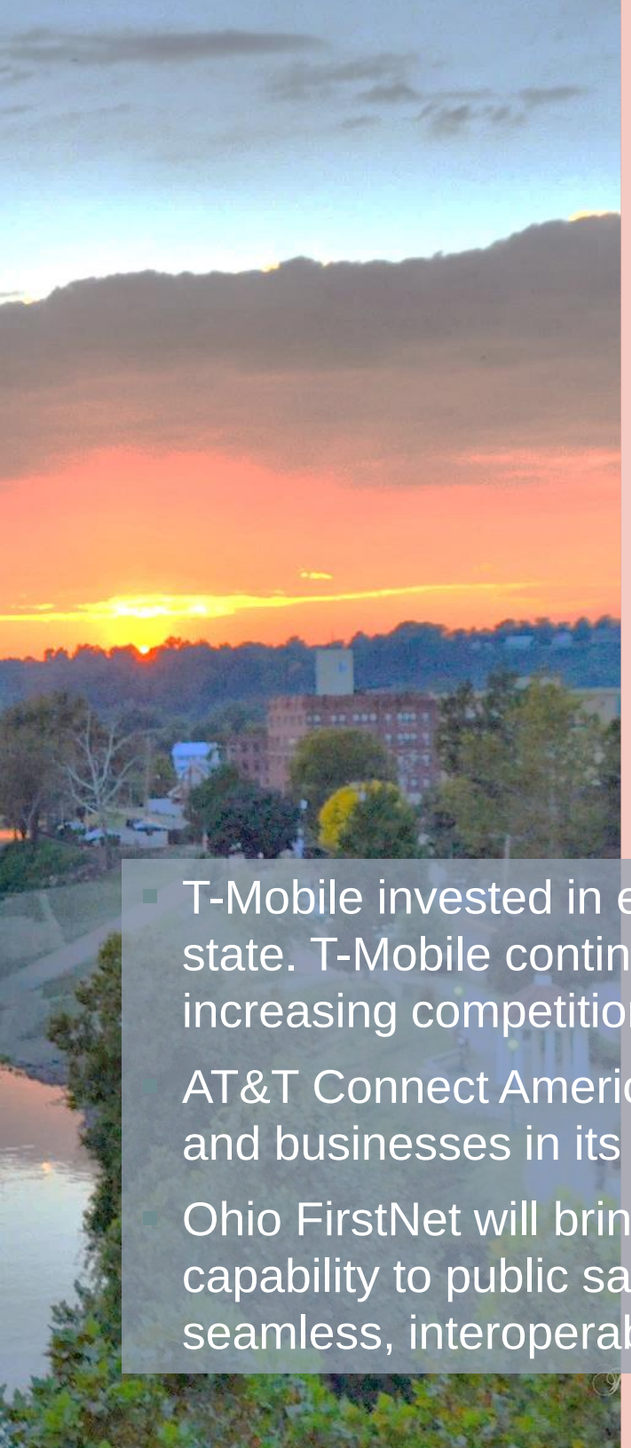
Expanding Capabilities:

# Driving Reach, Optimizing Cost and Creating Opportunities

Connecting the State's inventory of 300 MARCS towers required innovative technologies to move the network into a 21st century digital / internet capability.

Reach, capacity and cost factors required creativity on behalf of the State and the vendors that support State networks.

- MARCS identified a microwave connectivity solution to provide a stronger, resilient and consistent signal with more bandwidth at a lower cost.
- Agile Networks, an Ohio-based technology firm, leveraged access to tower locations across the state to both provide the needed backhaul capacity as well as to serve their customers.
- Upgrades that made to the MARCS towers connectivity provided additional capacity that could be leveraged by private service providers to extend mobile phone and Internet services to underserved areas of the state.



Facilitating Commerce:

# Creating Opportunities to Compete and Connect into the Future

For years the state challenged private providers to work together to fix the access problem in rural Ohio.

Recognizing this opportunity, the State supported a reach out to all major telecom companies in Ohio to utilize microwave point to point technology to expand connectivity in underserved areas.

- T-Mobile invested in equipment to extending T-Mobile's network to offer broadband to underserved areas of the state. T-Mobile continues to expand their footprint and has attracted other carriers to invest in SE Ohio thereby increasing competition.
- AT&T Connect America Fund II (CAF) targeted rural Ohio network improvements to deliver broadband to homes and businesses in its rural service areas where the cost of broadband deployment might otherwise be prohibitive
- Ohio FirstNet will bring innovation and opportunities to the State that include an application rich broadband capability to public safety by connecting first responders, the emergency response community and the public in a seamless, interoperable and coordinated operating environment.

# Questions & Answers

# Upcoming Webinars

**June 26 - Energy**: *How does the Midwest's diverse energy portfolio position it to power the jobs of the future and how will emerging technologies and regulatory requirements impact it?*

**July 24 - Technology**: What are the existing technology assets—networks, AI, data analytics, research centers—that we can strengthen and what do we need to add in order to compete with and surpass the global competition?

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