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TRANSPLEX WEB SERIES

Broad Uses, Broad Needs, Broadband: Planning for Florida's Transportation Infostructure

October 9, 2020

FDOT

Office of Policy Planning

ATTENDEE PARTICIPATION PANEL

- Attendees are automatically muted throughout the webinar
- Click the ? to open the panel box and submit a question to the panelists
- Answers to questions will be addressed by the panelists either verbally or in the question box
- Webinars are being recorded and will be available with other materials on the TransPlex website
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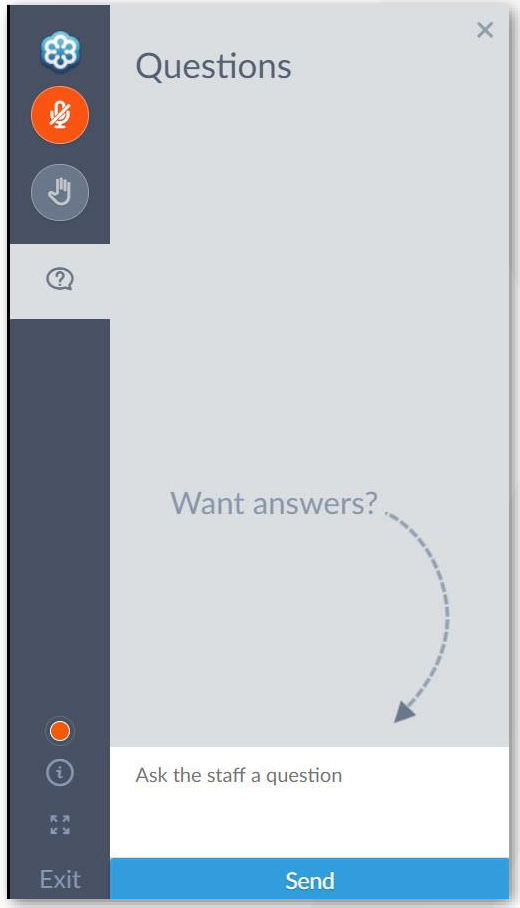

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PROFESSIONAL DEVELOPMENT CREDITS

Offered for Planners and Engineers that attend the live session.

You must attend the entire session to be eligible for 1.5 hours of credits.

FDOT employees can download certificates through Learning Curve.

All other attendees will receive certificates via email.

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CELEBRATING FLORIDA'S PLANNERS

(2020 PLANNING PROFESSIONAL OF THE YEAR NOMINEES)

Valerie Neilson

Palm Beach Transportation Planning Agency

Victoria Peters

FDOT District One

FDOT Office of Policy Planning

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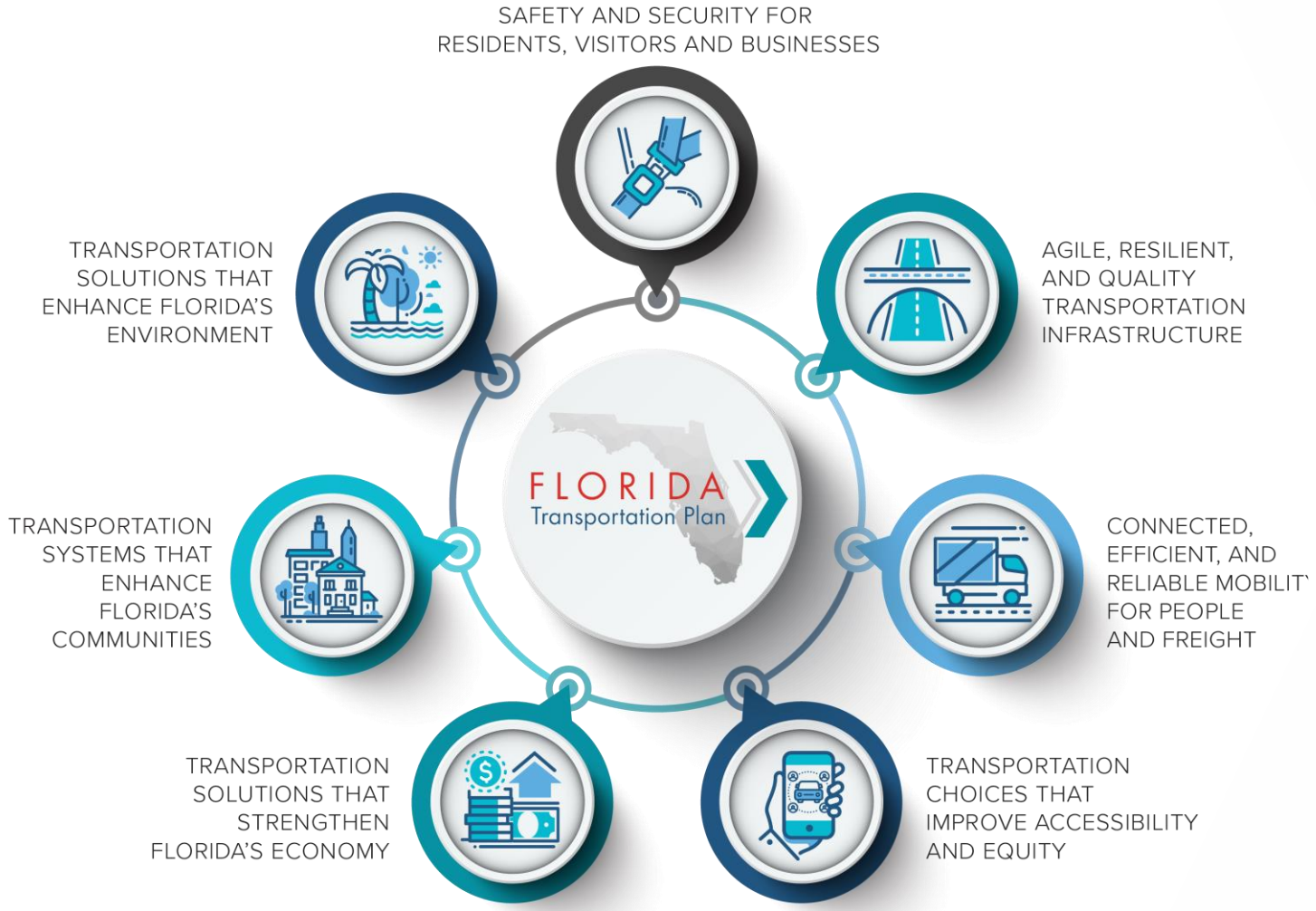
FLORIDA TRANSPORTATION PLAN GOALS



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JENNIFER STULTS, MODERATOR

WHAT IS BROADBAND?

- High-speed data transmission
- FCC current standard for advanced telecommunications capability:
  - **Fixed service**: Internet speed with at least 25 Mbps download and 3 Mbps upload (residential areas)
  - **Mobile service**: multiple ways of measuring, roughly equivalent to 4G LTE capability with minimum advertised speeds of 5 Mbps download/ 1 Mbps upload

TYPES OF BROADBAND TECHNOLOGIES

Digital Subscriber Line (DSL)

- wireline transmission technology that transmits data faster over traditional copper telephone lines

Cable Modem

- coaxial cables that deliver pictures and sound to TVs

Fiber

- strands of optical glass that transmit data in form of light faster than DSL

Broadband over Powerline

- transmitting internet using low- and medium-voltage electric power distribution network

Wireless

- radio link transmit data usually over short distances

Satellite

- another form of wireless broadband using microwave

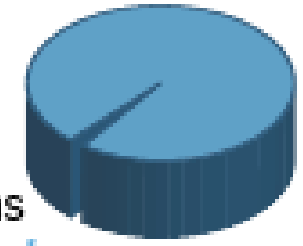
BENEFITS OF IMPROVING BROADBAND

- Transformative technology across the economy and society
- Economic benefits
  - 10% increase in market penetration produces 1.2% increase in GDP (World Bank, 2016)
  - Every dollar invested in broadband returns nearly $4 to Indiana economy (Purdue University, 2018)

- Education
- Health Care
- Economic Development
- Agriculture
- Mobility
- Public Safety
- Government
- Civic Engagement

BROADBAND DEPLOYMENT IN FLORIDA TODAY

98.3%
of Florida's
urban population has
access to broadband
(at least 25 mbps)



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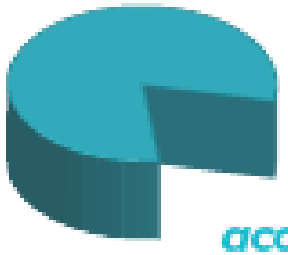
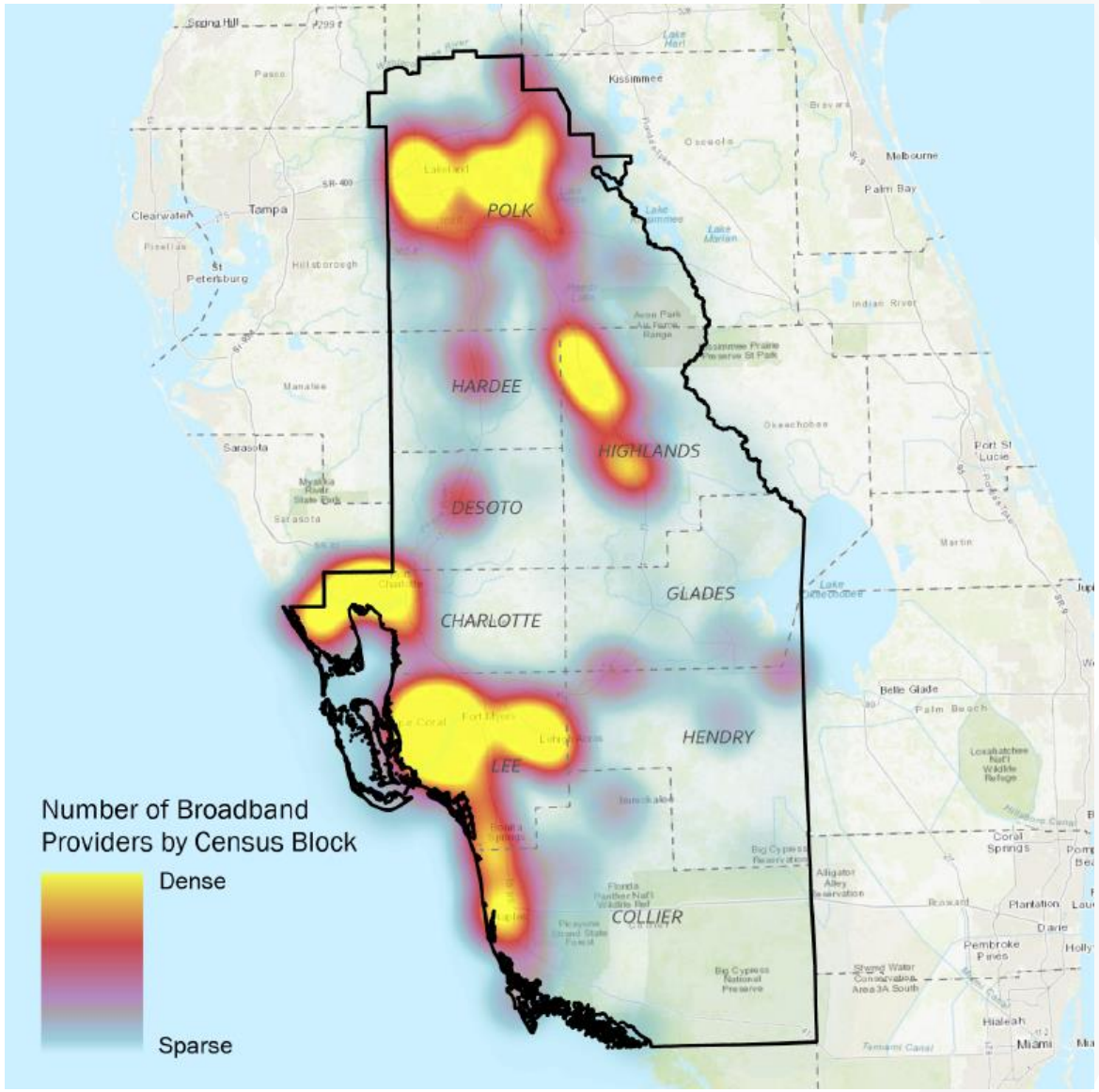


80.3%
of Florida's
rural population has
access to a broadband
connection



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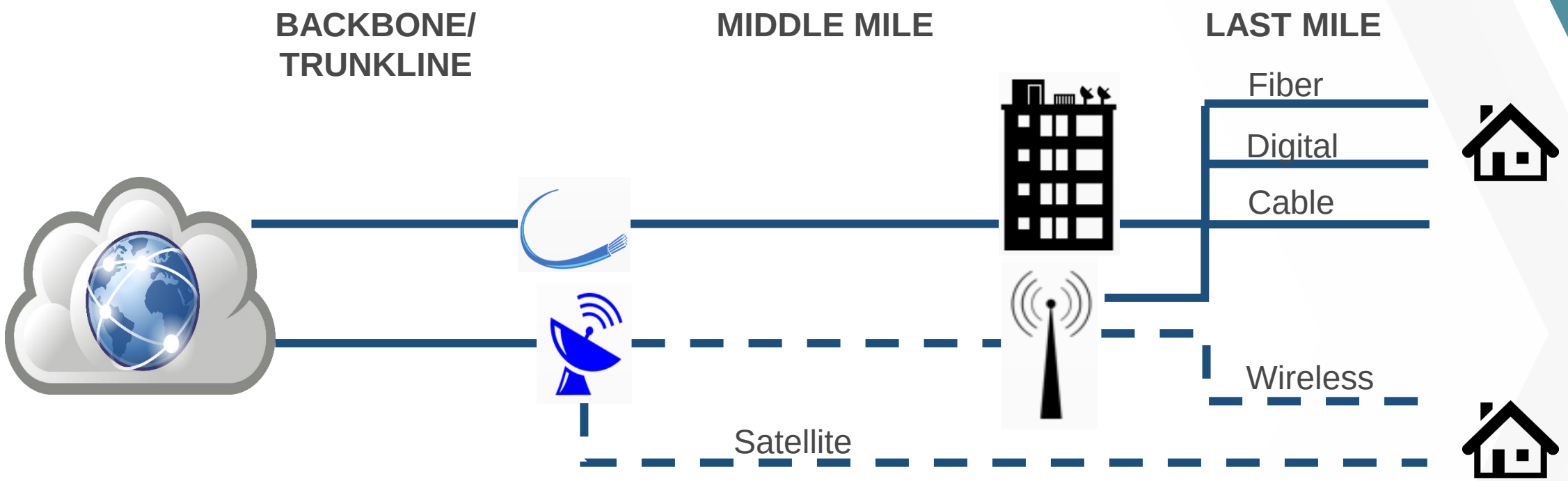
BROADBAND INFRASTRUCTURE



- **Backbone/trunkline** transmits large amounts of data to provider network
- **Middle mile** links backbone to the service providers' core network
- **Last mile** connects internet service to customer from providers

BROADBAND INFRASTRUCTURE COSTS ARE HIGH

- Cost of fiber deployment ranges from $6,600 to $267,000 per mile (USDOT); average for recent ITS fiber deployments has been **$72,000** per mile (FDOT)
- Capital costs account for **45-54%** of the cost of providing fiber (NCTA)
- About **¾ of the capital cost** is associated with placement of the fiber in the ground (or on poles) (FCC)
- Running a strand of fiber through an existing conduit is **3-4 times less expensive** than a new build (FCC)

HOW TRANSPORTATION CORRIDORS CAN FACILITATE BROADBAND DEPLOYMENT

- **Co-location** of broadband conduits or wireless systems in transportation corridor right of way

- **Coordination** of broadband installation with highway construction and other utility infrastructure to reduce costs (dig-once approach)

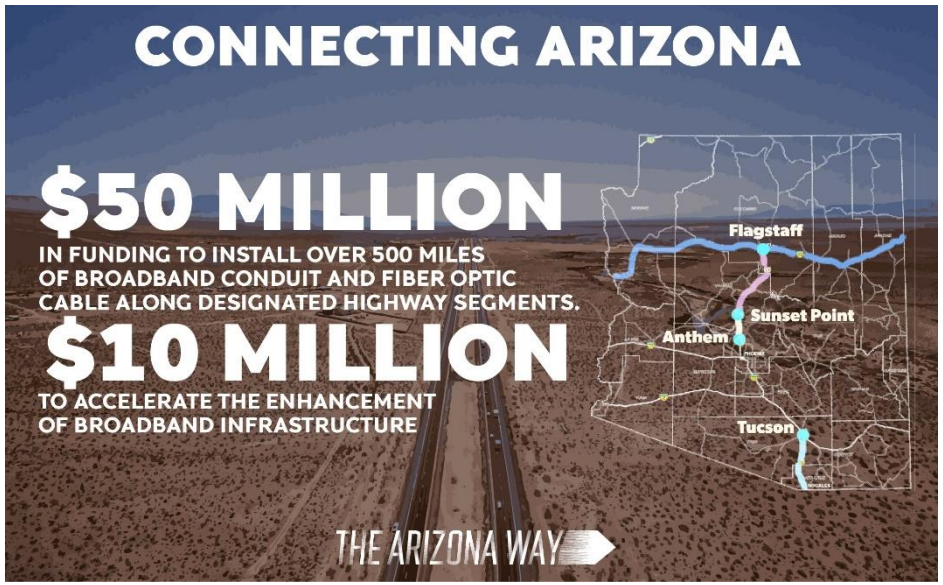
- **Collaboration** with economic development, workforce, education, health care, other community anchor institutions

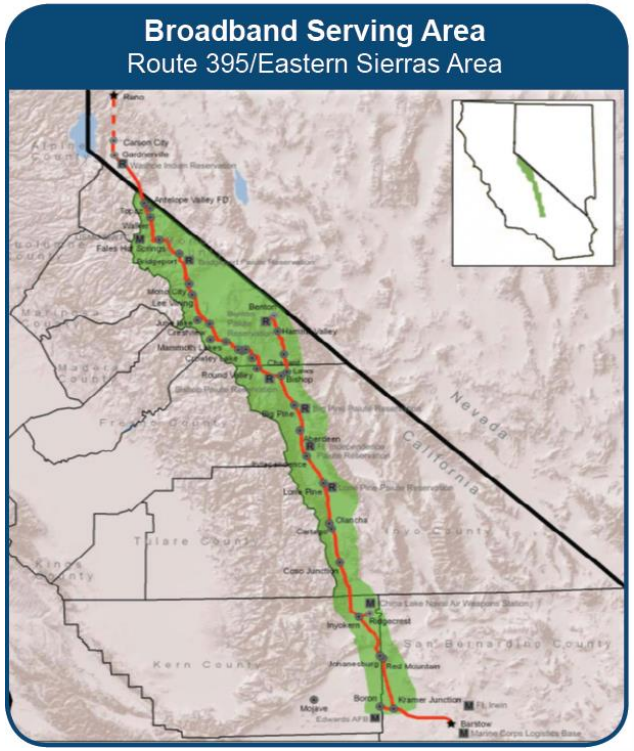
OTHER CONSIDERATIONS

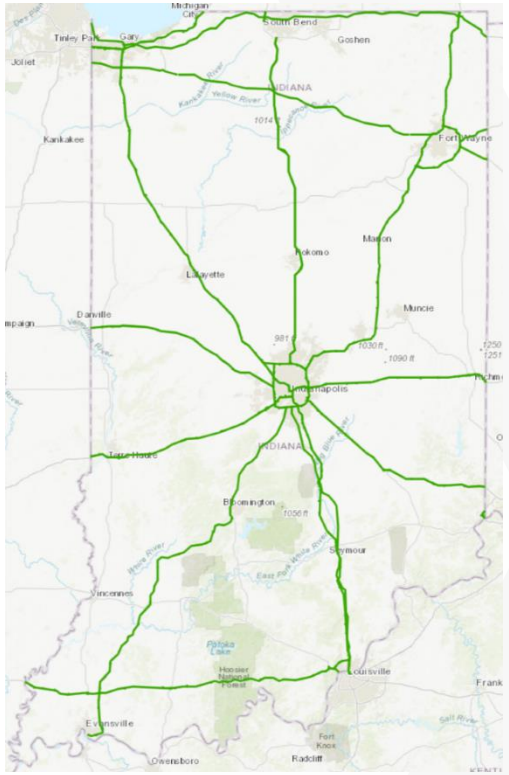
- Accommodating future growth in demand
- Upgrading technology over time to provide higher speed and quality
- Removing barriers to investment
- Providing access to all residents

EXAMPLES FROM OTHER STATES

- Arizona Smart Highway Corridors
- California Strategic Broadband Corridors
- Indiana Broadband Corridors







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2020 LEGISLATION: CS/HB 969

- Designates **Florida Department of Economic Opportunity** as **lead agency** to facilitate broadband expansion in Florida; creates **Florida Office of Broadband** within DEO
- Requires DEO to create a **strategic plan** for increase broadband use in Florida
- Defines **underserved areas** in Florida as geographic areas with no provider offering a connection >= 10/1 Mbps
- Authorizes FDOT to spend up to **$5 million annually beginning in FY 2022-2023** for projects to assist in broadband deployment within or adjacent to a **multi-use** corridor, with priority for rural areas of opportunity

POTENTIAL RESOURCES AVAILABLE

- Private sector partnerships
- Leveraging other Florida sources
- Federal sources
  - USDA (ReConnect and other programs)
  - USDOT (BUILD grants)
  - FCC
  - HUD (Community Development Block Grants, others)
  - EDA (disaster and economic adjustment assistance)
  - Other agencies (Treasury, Education, Labor, National Science Foundation, etc.)

TODAY'S PANELISTS

Katie Smith
Florida Department of Economic Opportunity, Office of Broadband

Brad Swanson
Florida Internet & Television

Charlie Dudley
Floridian Partners, LLC

Pat Steed
Central Florida Regional Planning Council

Hiep Nguyen
City of Winter Haven

Broadband Collaboration

Broadband Polk / Smart Communities Polk

Hardee County Broadband

Pat Steed

heartland2060
Building a Resilient Region

CFRPC

HRTPO
Heartland Regional
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FTP VIRTUAL ROOM

- Walk through the seven goal stations to provide your input on the draft strategies and share your ideas for reaching our goals.
- No specific time, always open!

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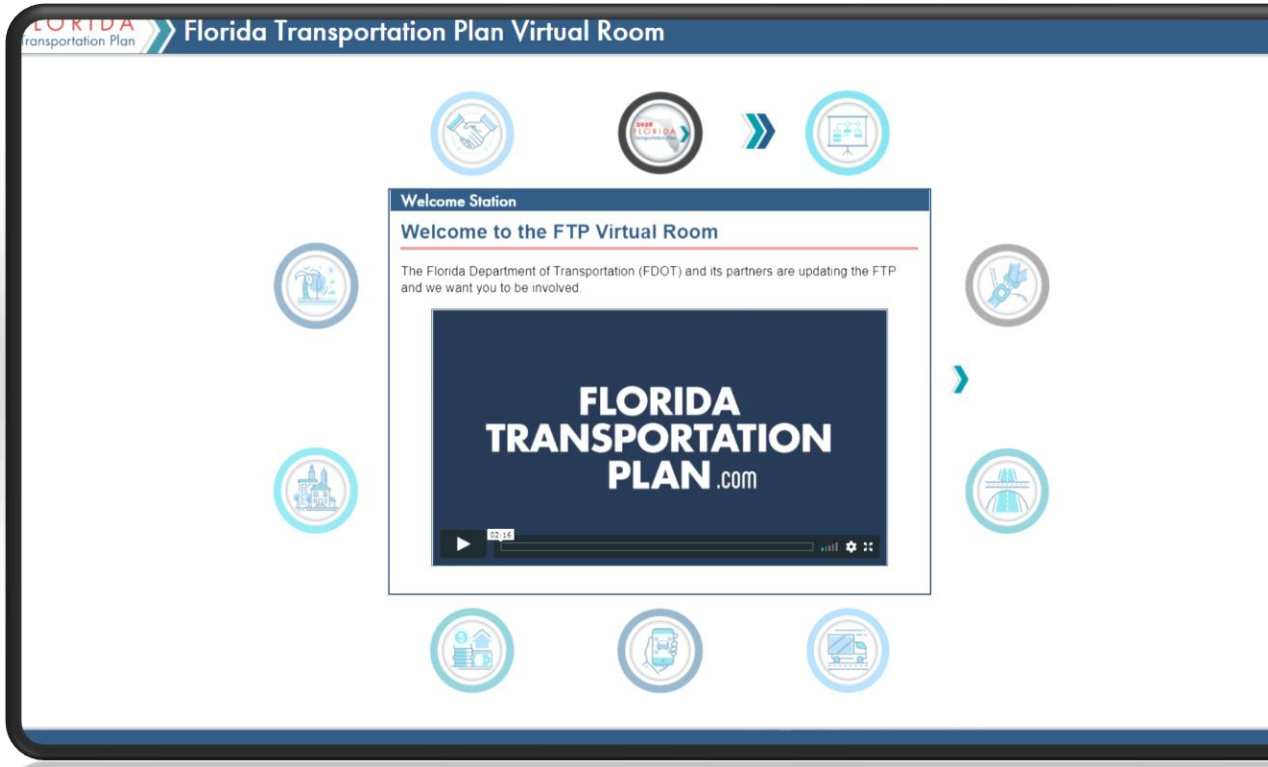

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THANK YOU FOR ATTENDING

- Up Next: **Drowning in Scenarios… Friday, October 16 @ 9am**
- Please complete the follow up survey that will be sent via email at the conclusion of this webinar

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