Beth Kigel
Florida Transportation Commissioner

Florida’s Smart Future:
Innovation in Policy and Technology Planning
A perspective of Florida’s growth

Key Statistics:

• Additional 6 million residents by 2030
• 160 million visitors annually by 2025
• 69% increase in freight tonnage by 2040

~ 3,000 Florida road fatalities in 2016
A perspective of Florida’s growth

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Efficient and Safe Mobility A Must!
What’s Happening with Data?

The Digital Universe: 50-fold Growth from the Beginning of 2010 to the End of 2020

Achieving a Smart Florida

EFFICIENCIES & ACCESS

Transportation / Mobility
Education / Training
Healthcare
Government
Other Services
Achieving a Smart Florida

EMBRACING TRANSPORTATION INNOVATIONS

MOBILITY AS A SERVICE

Transportation / Mobility

Education / Training

Healthcare

Government

Other Services
Government Fostering Innovation is a MUST

USDOT Secretary Elaine Chao:

“there are also concerns about how they will continue to develop . . . We need to do it in a way that will not dampen the basic creativity and innovation in of our country.”
Florida’s Momentum: Legislation, Education, Innovation and Collaboration

Key Legislation - 2012 to Present

FAV Summits
Stakeholder Engagement
Pilot Projects and Research
Testing Facilities
Efficient Use and Sharing of FDOT Data

Annual Transportation Summits

FLORIDA CHAMBER Foundation

Florida Automated Vehicles
ROADS PROJECT

FLORIDA STATUTES

ITS WORLD CONGRESS 2017
Montréal | OCTOBER 29 - NOVEMBER 2
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Florida Legislation – Encouraging Innovation

*(some examples)*

- **2012** – 2\(^{nd}\) state to authorize AV testing / provided a framework for AVs

- **2014** – authorized Florida’s OIR to approve premium discounts for vehicles equipped with specified autonomous driving technology

- **2016** – 1\(^{st}\) state to authorize AV without driver behind wheel

- **2016** – removed $5 million minimum insurance requirement

- **2016** – study to enable pilot of Driver Assistive Platooning
Florida Legislation – Encouraging Innovation
(some examples)

- 2017 – HB221 – established state-wide regulatory framework for Transportation Network Companies
- 2017 – HB 687 – pre-empts to the state the regulation of 5G telecommunications companies for placement of small wireless facilities in ROW
- 2017 – HB 865 – proposed Smart City Challenge Grant Program; authorizing FDOT to enroll in federal pilot programs for collection and study of data
- 2017 - HB1027 – electric Personal Delivery Devices authorized on sidewalks and crosswalks
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Annual Transportation Summits
FDOT’s Automated Vehicles Initiative

• Annual FAV Summits
  – 5th Summit: November 14-15 in Tampa, FL

• Stakeholder Working Groups / White Papers
  – 3 groups: Infrastructure/Technology, Modal Applications, and Policy
  – Collaborative with transportation government and industry stakeholders, including legal and insurance experts

• University Research Partnerships

• Pilot Project Initiatives

www.automatedfl.com
Florida’s Legislature and FDOT: Paving the Way

INNOVATION IN MOBILITY AND SMART CITY SOLUTIONS

Regional Examples:

NORTH FLORIDA

MIAMI MOBILITY

Palm Beach North

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INNOVATION IN MOBILITY AND SMART CITY SOLUTIONS

Regional Examples:

MIAMI MOBILITY

NORTH FLORIDA

Palm Beach North

SMART AND CONNECTED REGION

CONNECTED VEHICLE PILOT

TAMPA

FDOT INITIATIVE - 16 PROJECTS -

ITS WORLD CONGRESS 2017
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Signal Phase and Timing (SPaT)

**US 90 - TALLAHASSEE**
- 22 signalized intersections along US 90
- Partnership: FDOT, City of Tallahassee
- Pre-deployment testing and demonstrations at the Traffic Engineering Research Laboratory (TERL)
- First Road Side Units (RSU) deployment to begin by Dec 2017

**GAINESVILLE TRAPEZIUM**
- Partnership: FDOT, University of Florida (UF), City of Gainesville
- RFP in process: CV technology 27 signals along 4 corridors around UF campus
- Potential technologies to deploy/test:
  - ✓ Roadside Units
  - ✓ On-board Units
  - ✓ Web-based and/or smartphone application for pedestrian and bicyclist safety
UF AID and FRAME

UNIVERSITY OF FLORIDA (UF) ACCELERATED INNOVATION DEPLOYMENT (AID)

- FDOT applied for 2017 AID Demonstration grant application in April
- UF and City of Gainesville connected vehicle pilot project
- AID application in review by Federal Highway Administration

I-75 FLORIDA’S REGIONAL ADVANCED MOBILITY ELEMENTS (FRAME)

- Project limit: I-75 and US 441/US 301 from Wildwood to Alachua
- Deploy Integrated Corridor Management (ICM) using CV technologies
- I-75 Roadside Units (RSU) every mile for incident management
- RSUs at signals on detour routes for SPaT, pedestrian safety, freight and transit priority
- Automated Traffic Signal Performance Measure (ATSPM) in Gainesville and Ocala
- Test using on-board units and other tools
- FDOT design process started
University of Florida (UF) Test Bed

- UF Test Bed Partners
  - Florida Department of Transportation
  - UF
  - City of Gainesville

- Intent
  - To provide real-world test bed facility
  - To collaborate with and assist developers to demonstrate and test a wide range of solutions

- Test bed facilities range from freeways to high volume arterials with bike/pedestrian/scooter/skateboard applications

- Request for Information (RFI) for desired technologies or applications to test for safety, mobility, and data management
FLORIDA’S NEW HUB for MOBILITY INNOVATION

STATE OF THE ART TESTING FACILITY

- Florida Polytechnic University & Florida Turnpike Enterprise
- Test & research facility (tolling, ITS, and AV/CV technologies)

SunTraxFL.com
FLORIDA’S NEW HUB for MOBILITY INNOVATION

1. Main Access & Building Facilities
2. High Speed Oval
3. Dynamic Test Pad
4. Pick-Up/Drop-Off
5. Urban
6. Complex Suburban
7. Roadway Geometry Track
8. Environmental Test Chamber
9. Loop Track
10. Ring Track

SunTraxFL.com
FLORIDA’S NEW HUB for MOBILITY INNOVATION

GOAL FOR FLORIDA:
Nucleus of AV/CV Technologies

1. Main Access & Building Facilities
2. High Speed Oval
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SunTraxFL.com
Central Florida Autonomous Vehicle Proving Ground
Areas of Focus for Mobility

Five Modes of Travel

- Interaction of Modes
- Safety
Variety of Test Environments

SIMULATION AND TESTING
- UCF
- Florida Poly
- FAMU-FSU

CONTROLLED ENVIRONMENTS
- SunTrax
- Kennedy Space Center

OPEN ENVIRONMENTS
- City of Orlando
- FDOT
- FTE
- LYNX
FDOT collects multimodal data for mobility and assets
- Completing a data inventory
- Defined and documented approach for effective information management, utilization, and analysis
- Integrated, accurate, and trustworthy information

A KEY STEP TOWARD - MOBILITY AS A SERVICE -
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FLORIDA 2030

FLORIDA CHAMBER FOUNDATION

ITS WORLD CONGRESS 2017
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Strategic Planning for Florida’s Future

Transportation & Logistics

By 2030, Florida is attractive to all generations by providing high-levels of transportation connectivity, premium passenger connectivity options within and between regions, and smart regional connected infrastructure that accommodates autonomous vehicles and shared-transportation services.

Communications & Technology

By 2030, all Floridians and visitors will have access to high-speed internet, state of the art mobile technologies, and other communications advancements including Internet of Things (IoT) and Artificial Intelligence (AI) integration into public/private infrastructure systems.
Thank You!

Beth Kigel
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