



# Central Florida Automated Vehicle Proving Grounds Partnership

Overview by  
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for  
Metropolitan Orlando

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# Why?

- **City of Orlando's Executive Leadership Direction**
  - Earn & Retain "Smart City" Branding
  - Use Affordable & Emerging Technologies on a Continuing Basis to be -
    - *A Great Place to Visit, Live, Work, Play, Raise a Family, Ensure Good Environmental Stewardship, Attract the Creative Class and Promote Economic Development*
  - Pursue Regional Partnerships
- **Response to USDOT Solicitation**
  - Fall 2016
  - Numerous Concerns & Needs
    - Safety
    - Closed Environment Testing
    - Gradual Transition to Open Environment Testing
    - Research
    - Knowledge Sharing



An aerial photograph of a city, likely San Francisco, showing a river, a bridge, and various buildings. The image is slightly faded to serve as a background for the text.

# Background & Guidance

- **“How Shall We Grow”**
- **Beyond Traffic 2045**
- **US DOT Smart City Challenge**
- **MetroLab Network**
- **Mean Streets/Dangerous By Design**
- **World’s Largest Tourist Destination**
- **World’s Largest Rental Car Market**





# Central Florida's History of Transportation Innovation

- **Travtek**
  - Early to Mid-1990's
  - Response to Local & Statewide Challenge
  - In-Vehicle Navigation Systems
  - Extensive Partnership
- **Lymmo Bus Rapid Transit (BRT) System**
  - Late 1990's
  - First "Pure" BRT Project in the USA
  - Response to Local Access & Mobility Challenge
  - Downtown Development of Regional Impact
  - Funding & Operating Constraints Yielding Innovation



# Application/Primary Partnership

- **City of Orlando**
- **University of Central Florida**
- **Florida Polytechnic University**
- **FAMU-FSU College of Engineering**
- **Florida Turnpike Enterprise**
- **Central Florida Expressway**
- **Florida Department of Transportation Districts 1 & 5**
- **Lynx**
- **NASA – Kennedy Space Center**





# Map of Primary Partner & Facility Locations



# Areas of Focus

- **Four Modes of Travel**
  - Automobiles
  - Freight
  - Transit
  - Bike-Ped
- **Interaction of Modes**
- **Safety**
- **Full Range of Automation**
  - Vehicles
  - Roadside Equipment
  - Sensors
  - Human Factors
  - Alternate Fuels
    - Fueling/Charging Facilities
    - Fueling/Charging Types





# Approach

- **UCF & FPU**
  - Research, Simulation & Emulation
- **FAMU & FSU**
  - Review of Work Performed by Primary University Partners
  - Allow for Minority Institutions' Participation & Mentoring
- **FTE & FPU**
  - Development of Test Track
  - Closed Environment Testing
- **NASA-KSC**
  - Testing of sensors for extreme environments
  - Closed Environment Testing
- **CFX & FDOT**
  - Freight Vehicle, Infrastructure & Sensor Testing in More Open Environments
- **City of Orlando, UCF & Lynx**
  - Automobile, Freight, Transit & Bike-Ped Vehicle, Infrastructure & Sensor Testing in Open Environments
- **UCF School of Public Administration, FAMU & FSU Law Schools**
  - Public Engagement
  - Policy Development
  - Legislative Coordination





# Anticipated Benefits

- **US DOT Designation/Certification Agreement & Funding Opportunities**
- **Coordinated Research**
- **Safer & More Livable Communities**
- **Independent Pursuit of Other Opportunities**
  - **University Research**
  - **Independent engaging of auto-makers, OEMS & interest groups**
  - **Promoting and branding of work by subsets of the partnership**
  - **Engaging & utilization of Central Florida tech companies & talent**
  - **Economic Development**
  - **Attracting the “Creative Class”**
  - **Facilitating a culture of continuing innovation, review and R&D**



# Current Status

- **Unofficial designation since mid-January 2017**
- **Initial Team Meeting – early February 2017**
- **US DOT Convening of 10 winning teams – February 27 & 28, 2017**
- **Sharing of details & opportunities with local governments & other local interest groups**





# Next Steps

- **Development of Partnership MOU**
- **Development of process for engaging**
  - Auto-makers
  - OEMs
  - Local Tech Community
- **Dealing with the full range of procurement issues**
  - Harmonizing among partners
  - Advocating for local, state and federal law/rule changes
  - Facilitating uninvited/unsolicited suggestions for innovation
- **Development of protocols for media engagement as well as requests for, and releasing of, information**
- **Spring-boarding to other innovative ideas that can improve access, mobility & quality of life in Greater Orlando**



An aerial architectural rendering of a campus. The scene features several modern, multi-story buildings with flat roofs and large windows, arranged in a cluster. There are extensive green spaces with trees and lawns. A winding river or canal flows through the lower right portion of the image. A road with a bridge crosses the river. The overall style is a soft, painterly architectural illustration.

Questions & Comments, Please

