

Building the 30A Mobility Corridor

PRESENTATION

3RD FLORIDA AUTOMATED VEHICLES SUMMIT 2015

Dr. Joachim G. Taiber

CTO ITIC, Research Professor and Institute Director at CU-ICAR



The Seaside Story

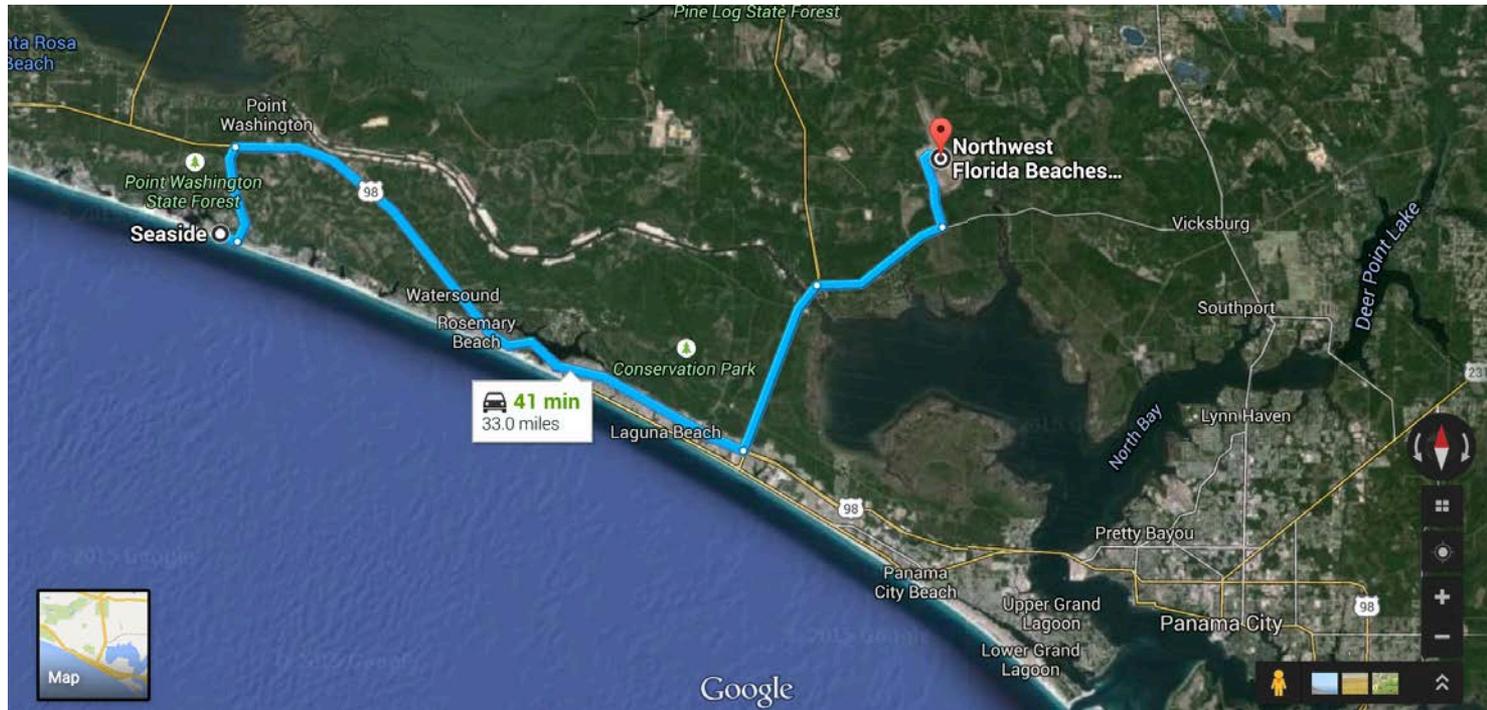


Seaside is a masterplanned beach community in the Northeastern part of Florida facing the Gulf of Mexico

The community has been designed according to “New Urbanism” architectural principles which emphasizes a walkable neighborhood and sustainable building structures

During its 30 year development history, Seaside has become the “jewel” of beach communities with national and international recognition

The Transportation Dilemma along 30A



In particular in high season the beach communities suffer from traffic-grid-lock situations along highway 30A which negatively affects local businesses, worker commute and tourists but also the environment

The Transportation Dilemma at Seaside



Parking capacity along the roads and at the Plaza is limited

Visitors bring a lot of business to the stores and require efficient transportation options

Residents need access to their properties and transportation on-demand

The key aspects to consider in transportation optimization along the 30A corridor



Efficient tourist transportation from the Northwest Florida Beaches International airport to the beach communities



Efficient transportation of service workers from Panama City region to the beach communities



Efficient commuting between the beach communities

Involvement of national and international transportation innovation experts to come up with solutions

ITIC is organized a workshop at Seaside with local stakeholders, transportation innovation experts and transportation innovation solution providers in October 2015 to achieve the following:

- > Understand the current transportation issues at Seaside and along 30a corridor in detail
- > Learn about relevant transportation innovations
- > Brainstorm about potential transportation solutions – both on the device, vehicle and infrastructure level
- > Prioritize transportation innovation project ideas
- > Build the first version of a 30A Mobility Plan



The 30A Mobility Project envisions developing inter-modal, sustainable and advanced transportation solutions that will contribute to reduced traffic and parking congestion along 30A.

This will serve to enhance the quality of life, environmental and economic growth of the area.

Creation of a dedicated road infrastructure for automated driving



With the technical development of automated vehicles the infrastructure in urban environments has to be adapted

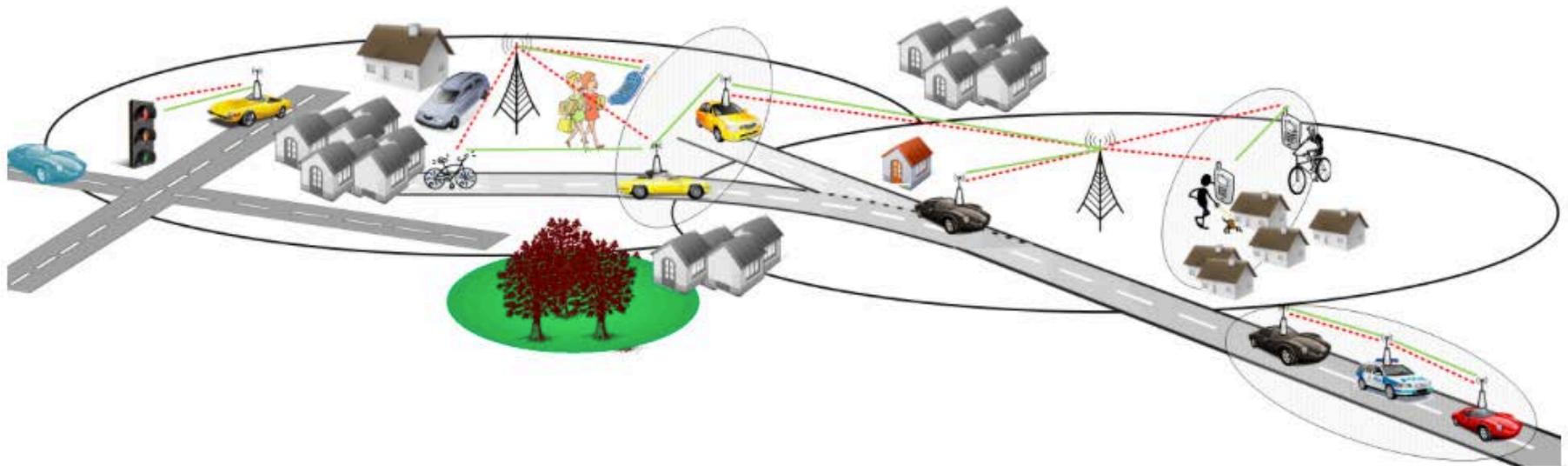
Parking has to be pushed out of overcrowded areas into satellite parking zones using automated vehicles as shuttles



Using innovative automated charging technology to enable zero-emission driving

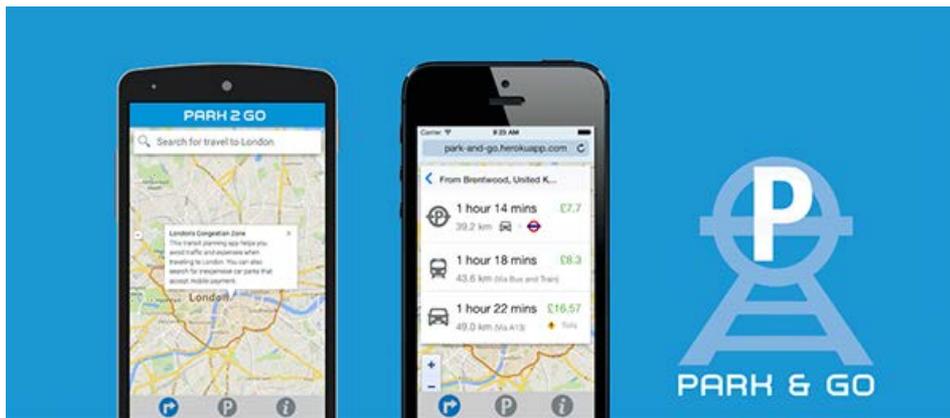


Using 5G technologies to support automated driving



Source: 5G-PPP

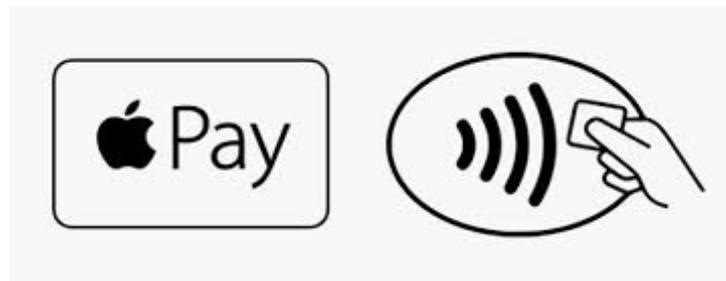
Applying mobile devices and apps to enable inter-modal mobility and on-demand transportation and implement new business models



Source: Park2Go



Source: Audiencescan



Establish a dedicated transportation innovation team utilizing the ITIC platform

ITIC is implementing a dedicated transportation innovation team to follow up on the October workshop outcomes:

- > Develop a local project center to coordinate the definition and implementation of the 30A Mobility Plan
- > Design the transportation innovation zones (testbed)
- > Implement partnerships with local universities and research groups
- > Develop industry partnerships (larger corporations, start-up's, VC's)
- > Develop the road, communication and power infrastructure to support the testbed

The role of CU-ICAR as educational and research platform in the US South East



CU-ICAR (Clemson University International Center of Automotive Research) is a dedicated automotive research campus in the center of the US South East where academic and industry partners are co-located (www.cuicar.com)

More than 250 million USD were invested since 2005, more than 1'000 jobs created and a unique AuE curriculum developed (20 professors and more than 200 students)

Deep Orange program to contribute to the “Car of the Future“



CU-ICAR collaborates with the famous Arts Center Pasadena in California on the development of car studies which are jointly developed by CU-ICAR engineering students and sponsored by OEM's and suppliers

Clemson invests in the further growth of its MBA program which can be utilized to „invent“ new automotive business models



More than 400 students are currently in the Clemson MBA program

New facilities have been created to support interactive learning and to support the incubation of new businesses

Automotive engineering students have the option to also enhance their skills towards business and marketing related subjects

ITIC – the operator of a testbed to support the vehicle and the infrastructure of the future



Resurfacing of 1 mile runway completed for vehicle testing, shared office and vehicle lab space, wireless charging infrastructure for EV's



Urban track testing scenarios for connected vehicles and automated driving

Private office and lab space, secure vehicle storage and exhibition capabilities available



Long-distance highway track testing along I-185 (highway can be closed for public traffic)



ITIC can provide an important platform as affordable innovation neighborhood to develop entrepreneurial talent and commercialize IP



- Provide transportation-centric start-up's with a home for experimentation in close proximity to the local universities
- > Provide a secure environment to develop technologies in partnership with larger corporations
- > Attract the best R&D talent to stay in the community after the university education period is completed
- > Stay in touch with academic leaders to validate innovations

ITIC invested in an advanced marketing platform, site improvements, CU-ICAR partnership and validated its business model over multiple years



ITIC website (www.itic-sc.com)



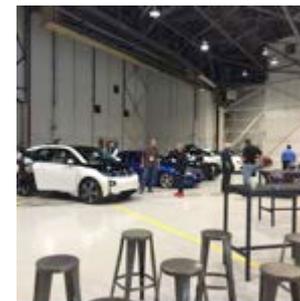
Resurfaced 1 mile long runway



First operational EV wireless charging testbed in the US (partnership with CU-ICAR and ORNL)



Co-sponsored international conferences



Automotive events (exhibition, ride & drive)

Briefing on 30A Mobility Project

WHEN: 6:30 p.m. - 8:00 p.m.

WHERE: **Room 1637, Hyatt Riverfront Hotel**

WHAT: Discussion public/private partnerships

Contact: Dr. Joachim Taiber, CTO ITIC
e-mail: joachim.taiber@itic-sc.com
cell: 864 906 61 61