UNLV, GOED, and Fraunhofer Team Up to Position Nevada as Autonomous Mobility Leader

The three organizations will collaborate to research and develop new autonomous transportation solutions for Southern Nevada.

The world might know Las Vegas for its casinos, but the city is increasingly making its mark as a global leader in autonomous transportation. And a new partnership among UNLV, the Nevada Governor’s Office of Economic Development (GOED), and Fraunhofer Institute for Transportation and Infrastructure Systems IVI will be advancing these efforts even further.

Since a 2015 trade mission to Germany, Nevada Governor Brian Sandoval and GOED have been working to develop an international collaboration between Nevada’s research-focused educational institutions and Fraunhofer IVI, one of 72 Fraunhofer institutes located throughout Germany. Fraunhofer IVI’s focus is transportation research, including everything from traffic planning to autonomous vehicle sensor technology. The partnership was recently made official through a statement of work agreement.

“Partnering with Fraunhofer IVI, a member institute of the world’s leading applied research network, will attract industry in the field of autonomous vehicle technologies to select Las Vegas and the Fraunhofer IVI-UNLV team as the applied research partner of choice while continuously strengthening the transatlantic collaboration between the two institutions for years to come,” said Karsten Heise, director of technology commercialization at GOED.

As part of the newly formed research collaboration, Fraunhofer IVI will send one of its engineers to Las Vegas for 15-18 months to establish and expand mobility research projects in Southern Nevada, in collaboration with researchers in UNLV’s Transportation Research Center. Together, they will work on Fraunhofer IVI’s AutoTruck project, which seeks to equip distribution center trucks with sensors and other technologies that enable delivery automation. In turn, UNLV will send one of its engineers to Fraunhofer IVI in Dresden, Germany, during the same time period to assist with computer vision—the process by which computers are able to detect or “see” objects in a similar fashion to a human eye—and learn the “Fraunhofer model” of research.

“We want to establish the transatlantic exchange of personnel and know-how as a lever for the developments at both institutions,” said Frank Steinert, group manager for vehicle and propulsion technologies at Fraunhofer IVI. “With our program, the institutions are able to benefit from new approaches and solutions of their foreign partners. The research results can be aligned to the market needs in the U.S. and Europe and hence be
established much more successfully. The bundling of development capacities increases the efficiency of the teams as well as the dissemination of the developments and, finally, the derived products.

With autonomous vehicle infrastructure already in place and a willingness to act as testing grounds for self-driving vehicle pilot programs, Las Vegas is already positioning itself as a global leader in autonomous vehicle systems. The city is home to the country's first completely autonomous electric shuttle, which is currently operational almost daily in a 0.6-mile fixed route around downtown and represents the largest self-driving vehicle trial in the United States, according to The Verge. The new partnership among UNLV, GOED, and Fraunhofer IVI allows the city to take the crucial next step toward being an industry leader in autonomous mobility research and operation.

“Previous collaborations I’ve participated in with Fraunhofer have resulted in the development of products and services that would not have been possible otherwise, and I see the same possibilities for transformative innovations to come out of this new partnership between UNLV, Fraunhofer IVI, and the Nevada Governor’s Office of Economic Development” said Zachary Miles, UNLV’s associate vice president of economic development. “Together, we could create a new breed of research and economic development opportunities in Southern Nevada.”

About UNLV’s Office of Economic Development

The Office of Economic Development works with public and private partners to address real-world needs and bring life-changing products and services to market utilizing university resources and talent. By attracting industry-sponsored research, developing intellectual property, and partnering with companies and organizations that share our vision, we are able to support economic development at all stages, from ideas to dollars.

About Fraunhofer Institute for Transportation and Infrastructure Systems IVI

The Fraunhofer Institute for Transportation and Infrastructure Systems IVI employs over 100 researchers in three departments. The institute is operating in a wide array of transport-related research and development topics, ranging from the fields of electromobility, traffic planning and traffic ecology, traffic information, vehicle propulsion and sensor technologies, while also incorporating traffic telematics, the information and communication sectors, as well as disposition and logistics.

About the Nevada Governor’s Office of Economic Development (GOED)

Created during the 2011 session of the Nevada Legislature, the Governor’s Office of Economic Development is the result of a collaborative effort between the Nevada Legislature and Governor Brian Sandoval to restructure economic development in the state. GOED’s role is to promote a robust, diversified and prosperous economy in Nevada, to stimulate business expansion and retention, encourage entrepreneurial enterprise, attract new businesses and facilitate community development. More information on the Governor’s Office of Economic Development can be viewed at www.diversifynevada.com