

# Driverless Shuttle Program Kicks Off in California to Tackle First Mile/Last Mile Mobility Obstacle

BY: [Ryan McCauley](#) | March 6, 2017

SAN RAMON, CALIF. — Sitting in the middle of a business park parking lot, two brightly colored buses stood ready to transport people to their destinations, not so unordinary. What was exceptional about these particular shuttles was a distinct lack of a steering wheel and pedals of any kind.

During a demonstration March 6, representatives from the Contra Costa Transportation Authority (CCTA), EasyMile and the Bishop Ranch business park gathered in San Ramon, Calif., to announce the launch of a pilot project utilizing two shuttles as a first mile/last mile (FM/LM) mobility solution. The two shuttles, costing \$250,000 each, will begin testing in an empty lot at the business park and will eventually move to an adjacent occupied lot. To abide by current state law, the pilot will transport people across the business park without crossing public streets.

“We need another mode of transportation,” said CCTA Executive Director Randy Iwasaki. “We need a first and last mile solution.” Transportation planning has for a long time been thought of in silos. There have been plans focusing on rebuilding highways, expanding light rail transit or implementing a bike-sharing system.

“This is one piece of a transportation network,” said Alex Mehran, chairman and CEO of the Sunset Development Company, which owns and operates the business park.

The FM/LM problem refers to the difficulty in starting and ending a commute, and therefore resorting to driving the entire way. While autonomous cars in ride-sharing networks seem to be all the rage, autonomous shuttles could serve a vital role in the expansion of AV technology. “This is the perfect technology for getting people who want to have an alternative to driving to work,” said California Assemblywoman Catharine Baker.

“We have a failure at the first and last mile,” said Mehran. “This is a solution to that failure.”

What is happening today, according to Iwasaki, is that buses load people from Bay Area Rapid Transit (BART) stations and drive them down the highway to the business park, and then return to the station empty to complete the trip over again. These shuttles drive the same route day-in day-out, and if were replaced with smart autonomous shuttles, could drive people from the neighborhood surrounding the business park and drop them off at the BART stations. This would essentially double the utility of these vehicles that are not being used today, said Iwasaki.

The shuttles themselves were purchased from French-based EasyMile, which specializes in FM/LM solutions. The EZ10 Shared Autonomous Vehicles are completely electric, can hold 12 people total (six seated with room for six to stand), are equipped with several emergency stop buttons, GPS and lidar technology that creates a 360-degree view around the shuttle about 50 yards out. Shuttles can operate 14 hours a day with a six- to eight-hour charging period, said company spokesperson Marion Lheritier.

The business park service serves as the next logical testing ground for the CCTA. We're doing a "graduated approach to testing," Iwasaki said. The agency has operated the [GoMentum Station](#) at an old naval weapons base in Concord, Calif. since 2015. The site has been redesigned to serve as a mock city in which features and intersections can be manipulated at will. GoMentum Station was recently named [one of 10 U.S. Department of Transportation's Autonomous Vehicle Proving Grounds](#).

This pilot kicks off the second phase of the CCTA's AV project, beginning with a highly controlled testing ground, graduating to a slightly less controlled business park parking lot, and ultimately lead to testing on public roads in cities. However, in order to operate on public roads, the CCTA along with its partners, will need to apply for a permit with the state DMV.

The 30,000 workers employed at Bishop Ranch will soon be able to sign up for rides in the shuttles, so long as they agree to provide feedback as to how the buses are performing. One potential challenge is that the vehicles are fine-tuned to stop in the event that any obstacle moves in front of the vehicle. During one run, a plastic bag was blown in the shuttle's path, and the vehicle stopped and waited for it to pass. Recognizing the difference between objects and pedestrians is a fixable problem, said Lheritier. A larger challenge, however, is the humble little snowflake, she said. When it is really stormy, snow sticks to the lidar sensors, blocking the view of the vehicle.

"Rather than reinventing the wheel, we went out and looked for who had the best technology," said Iwasaki. EasyMile was the ideal partner, he said. Being innovative in government is all about partnerships and none of this would be possible without buy-in from both the private sector and elected officials. "This is a collaborative effort between business and government for the public good," said Mehran. "We are excited to be at the cutting edge of innovation in driverless technology."

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