



Going FULL AUTO

New technologies are edging humans out of the driver's seat of their own cars – it's time for dealers to get ready.

By Catherine MacDonald and Tom Nash

As Massachusetts continues to push electric vehicles through its tax credit system – absent a real market demand -- the prospect of self-driving vehicles may seem impossibly distant to dealers faced with moving metal many consumers don't even know exists.

For governments, analysts, and, most importantly, manufacturers, self-driving vehicles are a foregone conclusion. In the past four weeks, Google and Chrysler announced collabora-

tion on a self-driving Pacifica minivan, and IHS Automotive announced that it expects 21 million self-driving vehicle sales in 2035. IHS predicts the 2020 Summer Olympics in Japan will jump-start manufacturers to put self-driving autos on the market worldwide.

"Future mobility will connect and combine many different modes and technologies, and autonomous vehicles will play a central role," says Jeremy Carlson, principal analyst at IHS Automotive. "IHS expects entirely new vehicle segments to be created, in addition to traditional vehicles adding autonomous capabilities. Consumers gain new choices in personal mobility to complement mass transit, and these new choices will increasingly use battery electric and other efficient means of propulsion."

Even with a gradual growth over the next 20 years, Massachusetts government agencies large and small are not waiting around to encourage the industry to make its technology investments in the Commonwealth. Massachusetts lawmakers also are already putting rules and regulations that govern self-driving vehicles in motion.

The buzz around self-driving tech has not



quite reached the dealership level. But new research, conducted by the Massachusetts Institute of Technology, shows dealers will play an increasingly important role for some customers as cars lose the element that left room for both danger and excitement: a human behind the wheel.

The auto dealer of the future will need to understand and share automated technology that's built to erase everything about the automobile we've ever known.

The Human Touch

While Toyota and the Massachusetts Institute of Technology recently announced a nearly \$1 billion self-driving technology development collaboration, MIT isn't just racing to help Toyota put cars on the lot. The MIT AgeLab, working to find new solutions for successful aging across several sectors, recently conducted a study to find out where older drivers find themselves in the midst of the current tech in cars and what the implications might be for customers navigating an entirely driverless car lot.

MIT AgeLab Research Associate Hillary Abraham says the need for dealers to know their tech backwards and forwards is already there, especially for older drivers who said they preferred dealers explain features than researching it for themselves.

"Since the dealer may be the first place an older consumer is exposed to these types of technologies, first impressions are key," Abraham says. "It is critical that sales and delivery staff effectively explain what the system does, while explicitly ensuring drivers see the benefit. Over the years we have seen that



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a combination of hands on description and actual on-road demonstration of a technology is really valuable."

Abraham pointed to the AgeLab's study on Ford's Active Park Assistance as an example, with results showing reduced stress levels among drivers who used it. But getting proper instruction on its use was key.

"The educational experience we provided users significantly increased the reported likelihood of using the feature and interest in buying a vehicle with the system," Abraham says. "Perhaps most importantly for dealers, there was a strong likelihood they would recommend the technology to a friend who had difficulty parallel parking."

Local Moves

As GM makes headlines with its collaboration with ridesharing company Lyft on a pilot autonomous Bolt program in Pittsburgh and Chrysler works with Google on their self-driving Pacifica in California, Massachusetts is working to attract similar development deals to the Boston area beyond Toyota's large investment earlier this year.

Some of the companies working on self-driving vehicle technology locally are Autoliv Electronics in Lowell and Amazon Robotics in North Reading. Two UMass Amherst professors also are collaborating with the National Science Foundation and GM on a system to transfer human control to an automated system in a vehicle.





Audi CEO Rupert Stadler and Somerville Mayor Joseph Curtatone.

Massachusetts state legislators are looking to make easier going for manufacturers, since current law states a human must be behind the wheel of any vehicle on state roads. A bill that would change regulations to allow testing of autonomous vehicles had a public hearing in April 2015, but in June the Senate moved it along for further study.

In Somerville, Audi isn't waiting for the roads to catch up to them. The company started a partnership with the city last year to test its autonomous parking systems at the city's Assembly Square mall development and is now working on "smart" traffic solutions in Union Square.



IHS Yearly Self-Driving Auto Sales Predictions, U.S.

2020: Sales begin

2025: 600,000

2035: 4.5 million

"To have such a world industry leader, Audi, testing their new ideas here in Somerville is a powerful thing for us," Mayor Joseph A. Curtatone said in a statement, who adds that he's hopeful Audi will decided to open a permanent lab in the city.

Getting in the Conversation

With manufacturers, politicians, and government regulators getting together, at what point should dealers be invested in the conversation? For MSADA Staff Attorney Peter Brennan, who has been monitoring the regulatory side, the important bridge to cross will be when and if lawmakers or manufacturers try to alter not just who is driving vehicles, but who is selling them.

"The bottom line is protecting franchise laws," Brennan says. "We think the most effective, safest way for these cars to be sold is through the dealer network. They're going to need to explain how the car works, and the car's going to need service."

"There's an enormous amount of potential there," Brennan adds, "but quite a few questions."

As MIT's Abraham points out, the franchise dealer network will play a vital role for many consumers who could be interested in autonomous vehicles and need guidance. For her part, Abraham hopes to collaborate further with dealers. "Given the importance of this topic in the evolution of the digital age in vehicle safety, we would love to work closer with them."

MSADA Executive Vice President Robert O'Koniewski says that, as the conversation continues, dealers are ready

to do their part to ensure customers are comfortable with the products that could be on the road sooner than many thought.

"For 100 years dealers have been the key player in the relationship between a vehicle and its driver," O'Koniewski says. "Whether it's been the advent of power steering or in-car GPS, dealers have been the chief vehicle technology ambassadors on Main Street, and autonomous technology will be no different.

"The key role dealers will play should remain the same, and MSADA is excited to work with all parties to ensure the core foundation of the franchise auto retail business serves the public in this new era."

