

AUTOMOTIVE

Self-driven, electric vehicles could dominate the road by 2030: BCG

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Tesla Explores in Portland

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Three major automotive trends will converge in the next ten years: ride sharing, self-driving vehicles and electric automobiles.

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With these three trends coming together, future-focused automotive brands and tech startups will be poised to have a much larger stake in the transportation business, according to a new **report** from the Boston Consulting Group. This will be especially important for luxury automakers, who will want to stay on the cutting-edge of new road innovations.

"In the past, these technologies did not exist, so convergence was not possible," said Rahul Choraria, co-author of the report and principal analyst at **BCG**, Boston. "However, with significant investments, deep focus, and rapid progress in electrification and AV, there is a strong economic rationale for these to come together.

"Together, they drive the lowest cost for the consumer, which will lead to a step change in adoption. Combining ride-sharing and autonomy is already recognized as a powerful combination.

"Just recently, Uber CEO Travis Kalanick **testified** that if his company is prevented from developing autonomous vehicles, it might not have a viable business model."

Future of cars

The future of the road will be significantly more autonomous. This has been clear for a while as nearly every major auto brand has been at least doing some cursory testing of self-driving cars.

Some of those brands have gone much further than others, with Tesla Motors self-driving cars already being on the road in some parts of the United States.

This change will likely continue over the next few years. But along the way, it will converge with two other major trends in private transportation: ride sharing and electric automobiles.

Uber has disrupted the car service industry heavily since its debut, and despite some major PR setbacks it remains

dominant along with other ride-sharing applications such as Lyft or Via.



Tesla's Model X

Electric automobiles are also gaining recognition as both a status symbol and environmentally friendly alternative to gas-powered models.

BCG predicts that by 2030, 25 percent of all miles driven in the U.S. will be in shared, self-driving electric vehicles. For consumers in large cities, this will offer one of the cheapest and least environmentally damaging methods of travel possible.

The report also predicts that by 2030 more than 5 million conventional cars could be replaced by self-driving electric vehicles.

Not only will those vehicles be better for the environment and produce less pollution, but their ride-sharing nature will make them cheaper for city-dwellers for whom keeping personal car is not always practical.

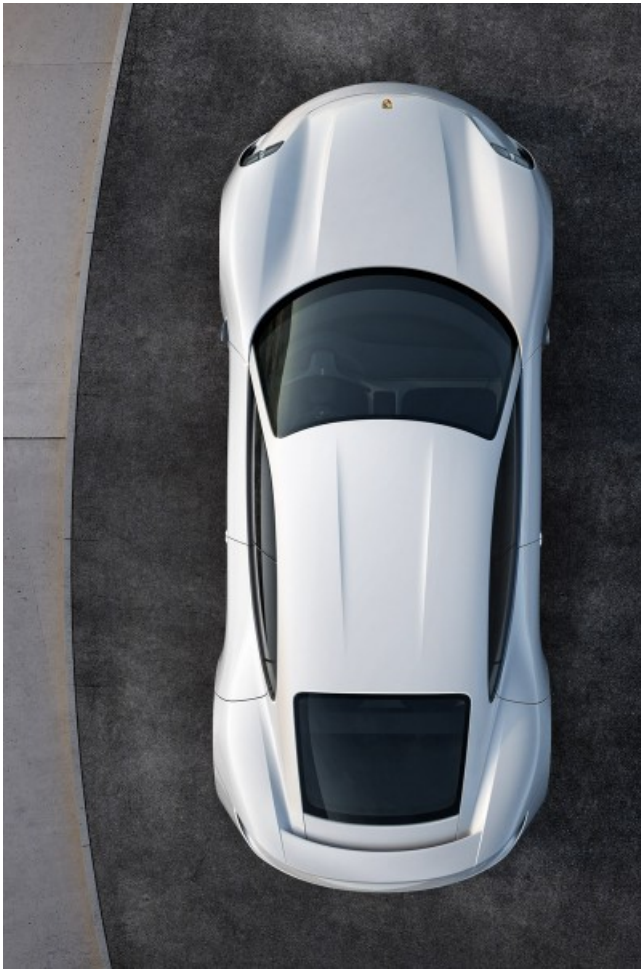
Of course, for luxury consumers, owning their own self-driving electric car will likely be a tempting status symbol as the technology becomes more popular.

Electric feeling

Self-driving and electric cars have already drawn interest from some of the biggest names in the luxury auto business.

For example, Porsche announced its entry into the electric car market with an elaborate microsite dedicated to the model.

The microsite allows users to watch the design unfold through a series of virtual slides, examine the vehicle from different vantage points and learn about the design, performance and features just by scrolling. The vehicle, the Mission-E, was announced at the Frankfurt Motor Show and does not yet have a launch date, but teasing it with an elaborate and well-designed microsite will create strong initial buzz ([see story](#)).



Porsche's electric car

Tesla has also hinted that its self-driving cars could be used for ride sharing.

The service originally mentioned in founder Elon Musk's master plan was named in a disclaimer about self-driving capabilities on Tesla's Web site, which barred against using the autopilot features for commercial purposes. A number of automakers are turning to the lucrative ride-sharing sector to reach consumers who seek alternatives to car ownership ([see story](#)).

These bits and pieces from around the auto world suggest that BCG's predictions are not so far-fetched and could be right on track to a world where shared self-driven electric cars make up a majority of the cars on the road.

"We see three responses for auto manufacturers," Mr. Choraria said. "Large auto makers could fully embrace the SAEV (Shared autonomous electric vehicle) concept and not only switch production to the new kinds of vehicles, but also get involved in new business models, such as operating SAEV fleets.

"At the other extreme, large global auto makers can keep their focus on EV and/or ICE vehicles, but reduce cycle times and continue to push the limits of technology. In between, smaller carmakers that have strong brand reputations can supplement core cars with new technology, sell more fleet cars, and align with ride-sharing fleet operators."