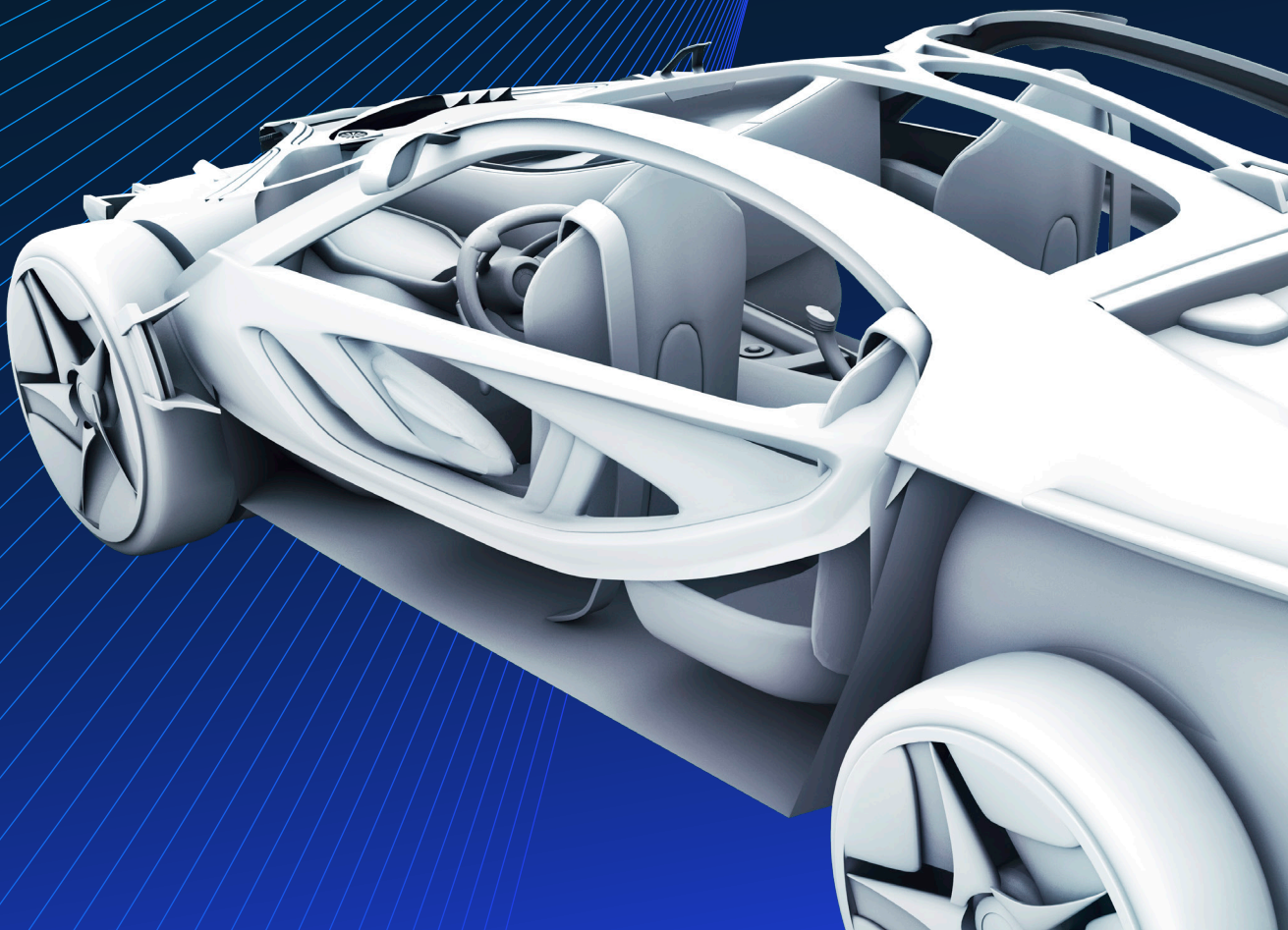


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McKinsey Center for Future Mobility

The new realities of premium mobility



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Authors

Jan-Christoph Köstring

Timo Möller

Simon Middleton

Andreas Tschiesner

Asutosh Padhi

Executive summary

The premium automobile segment inspires consumers and OEMs alike. For car buyers, the precision design, engineering, and sophistication of premium brands have engendered perennial interest and enduring loyalty. For automakers, this dynamic has made the premium segment immensely profitable.

After years of strong sales and steady growth, the premium car segment is cruising into a bumpy stretch of road. New McKinsey research has identified five overarching trends that will upend the auto industry in the coming years and force OEMs to respond with decisive action.

1. **Divergence across the triad: China, Europe, and the United States.**

Premium automakers historically have developed models for a global market. However, our research reveals that consumers in the segment's primary markets—China, Europe, and the United States—vary widely on what they value most in a premium vehicle.

2. **Premium customers driving digital disruption.** Far more than other segments, the premium ownership journey is increasingly digital, and consumers are engaging with brands through a range of digital channels. The influence of digital has also helped to fuel the appetite of premium consumers for shared mobility solutions.

3. **The new differentiating factors in premium: from Nürburgring lap time to design and connectivity.**

The rise of electric powertrains will turn auto performance, once a distinguishing factor for premium brands, into a commodity. Going forward, superior connectivity and interior design will become decisive factors for premium consumers.

4. **Brand remains king—but evolves.**

The concept of a monolithic brand will face challenges from the non-OEM companies behind the proliferation of mobility services, which are beginning to compete directly with OEMs on brand. In addition, OEMs that add more products, services, and partnerships will be challenged to maintain their brand amid increasing complexity.

5. **Driving disruptive force: regulation.**

In markets around the world, governments are establishing more stringent emissions standards. At the same time, the rise of autonomous vehicles is forcing elected officials and policy makers to implement regulations that balance consumer adoption with public safety.

Collectively, these trends are forcing premium OEMs to evaluate every facet of their approach to auto design and manufacturing. Incumbent OEMs are well placed to unlock new opportunities and bring innovation to their strategies. In this shifting environment, we believe several areas hold the key:

- **Know and embrace your customer.**

With market growth for premium cars slowing down and partially stagnating, premium OEMs have to find new opportunities in smaller pockets of growth to continue their success story. This, however, means that they will need to innovate their offers along 3 dimensions: (1) they will need to find new ways to address granular customer needs and create demand without always adding massive product complexity with the new, costly product derivatives. (2) They will need to widen their spectrum from being a sheer car manufacturer to being an end-to-end premium mobility provider that is able to address widely differing customer needs. And (3) they will need to rethink their relationship to the customers, from primarily focusing on one-time transactions towards becoming a relevant partner in a true lifetime relationship with continuous interactions beyond servicing the car. Only if the premium OEMs will be able to this, they will tap new opportunities for growth and profitability. And to do so, they will need to step-change their understanding of the customers and complete a mindset shift from driving their business from an engineering-lens towards challenging the way of doing business through a true customer-lens.

- **Be agile.** Flexibility and agility in design, engineering, and manufacturing are critical to reduce the time to market and adapt to changing consumer preferences. Given the different pace of advancements in car manufacturing and technology, traditional manufacturers in the premium space must embrace agile principles to synchronize the widely disparate development times of vehicles and connectivity services.

- **Strengthen and differentiate the brand.** The future role of brands for premium OEMs cannot be overemphasized. With sheer product differentiation becoming more and more difficult with the advent of electromobility and brands becoming more and more stretched through mobility offers, premium OEMs need to overinvest into their brands and translate their brand essence into all elements of their offer. As our research has shown, customers are willing to “fight” for their brands even when using third party mobility providers such as UBER. Yet, this preference for the brand needs to be constantly nurtured across all customer segments, including the increasing segment of non-car owners, so OEMs need to double down on developing a clear “brand design language” that includes signature elements that can be found across all mobility offers. Finally, with the increasing number of offers and the multitude of available channels, OEMs need to implement a rigid brand monitoring and management to keep the brand promise across offers and channels.

- **Become a premium mobility provider.** As mentioned earlier, OEMs can generate significant additional value from mobility by focusing on service-based business models that provide access to a pool of vehicles. Key will be to leverage the desirability of their products as well as to provide a premium experience to keep the third party mobility providers such as UBER at a distance and/or make the demand for the products so distinctive that the success of premium mobility providers will depend on offering the OEMs’ products. Beyond the sheer offer aspect, OEMs should also leverage their ability to generate distinctive insights about customer behaviors through advanced analytics that can inform the development of high-potential services and how to monetize them. To do so, OEMs will have to embrace a larger and more complex ecosystem that involves technology partners and other third parties.

Premium OEMs need to rethink their approach to develop the right products and services for the right customers in the right places. The most successful automakers will commit to the belief that the sale of these products and services is just the beginning of a long and valuable relationship with their customers, supported and sustained by software-enabled customization and a superior “end-to-end” customer experience.

Introduction

It's no secret why consumers have been drawn to premium cars for decades. These globally recognized brands project sophistication and style. With precision engineering, sleek design, and well-appointed interiors, their vehicles offer a sublime experience.

40%

of profits belong to premium, with only 13 percent of vehicle sales.

Such features have made premium automobiles not only coveted by drivers but also immensely profitable for OEMs: in 2017, this segment made up 13 percent of vehicle sales but 40 percent of profits. Year after year, premium OEMs have waged a battle for dominance in the familiar realms of performance and styling in an effort to delight buyers.

The backdrop is a tightening market environment. Prospects for the premium segment are reassuring in the near term—global growth is forecast to be around 2 percent a year through 2021 before increasing significantly until 2030. However, changing market dynamics are beginning to be felt. New McKinsey research sheds light on the seismic shifts afoot. Divergent consumer preferences across the United States, China, and Europe are eroding OEMs' once-unquestioned position as tastemakers. The incursion of electric powertrains threatens to commoditize the performance benchmarks that have long defined premium cars. The integration of digital technology and connectivity into car design, combined with their ubiquity beyond the four wheels, has made tech-enabled features as coveted—if not more so—than traditional car performance. Indeed, interior design now regularly rivals exterior features among top consumer preferences. Collectively, these trends will force premium OEMs to reevaluate every facet of their approach to auto design and manufacturing.

We believe incumbent premium OEMs are well placed to unlock new opportunities and bring innovation to their differentiation strategies. They also have an unlikely friend in regulatory bodies. Specifically, the pressure of evolving regulations, particularly on emissions and autonomous driving functionality, actually serves as a catalyst for premium OEMs. The need to respond rapidly will help move premium automakers towards new levels of differentiation in products and services, enabling them to create additional value.

As OEMs seek to redefine the features of their premium offers in this shifting environment, we believe four areas hold the key: know and embrace your customer, be agile, strengthen and differentiate the brand, and become a premium mobility provider. Across these areas, a granular strategy will help OEMs understand what is required and relevant at the regional level and keep pace with changing consumers.

In discussing the five trends that will upend the premium automotive market and recommended pragmatic actions, we rely on our experience, analyses, and industry expertise. This knowledge was augmented with insights derived from a survey of more than 2,000 consumers and interviews with more than 200 experts and executives in the premium automotive segment across China, Europe, and the United States.

Five trends shaping a new reality in the premium and high-end automotive world

12%

growth in revenue CAGR 2009–2017.

From 2009 to 2017, our analysis found the premium vehicle segment¹ grew at a compound annual growth rate (CAGR) of 9 percent in volume and 12 percent in revenues. This strong expansion resulted from a confluence of factors, including a proliferation of premium vehicle offers, increasing consumer wealth in key regions, and a flourishing set of available features to appeal to consumer segments with varying taste and financial resources. More than 85 percent of the premium vehicles delivered worldwide in 2017 were manufactured in just three places: China, Europe, and the United States. (Exhibit 1).

The premium segment itself is extremely lucrative for OEMs, representing 13 percent of volume but 40 percent of

profit. Indeed, the strength of premium brands, their higher-end finishes, and integration of technology enable OEMs to charge more for these models and command higher loyalty from consumers. However, rapid changes in the automotive industry—caused by changing customer preferences, enabled by technology, facilitated by design, and mandated by governments—are redefining the definition of “premium.” (See sidebar, “The evolving definition of ‘premium.’”)

¹ Our analysis covered the top 21 OEMs by revenue.

The evolving definition of “premium”

In the automotive industry, the “premium” designation is subject to multiple interpretations—not least because the very concept has evolved. The premium segment sits between mass-market vehicles (commoditized, entry-level, value-driven cars) and luxury vehicles (the top end of performance and craftsmanship). Examining the premium market at a more granular level, however, highlights the nuance of the designation. Well into the 1970s, “premium” in automotive was synonymous with high-priced cars (first horizon). This definition began

to change when premium OEMs started to invest in building their brands and extending their portfolios (second horizon)—sometimes even down to the compact class. This era was followed by the current phase, in which almost every major OEM has launched a premium brand to carve out a profitable niche in the premium market (third horizon). At the same time, “high priced” has been replaced with the idea of “price premium,” reflecting the idea of actual value in which customers are prepared to pay for certain offers from strong brands.

This current market is now set to be bolstered by a new definition of premium characterized by the five key trends discussed in this report. Indeed, the fourth horizon will go even further to release customers from simply spending more for premium offers to paying for experience and customization.

In this report, “premium” is defined as the segment of the automotive industry centered on convenience, comfort, performance, and experience beyond what is offered by the mass-market segment and for which customers are willing to pay.

Exhibit 1

Premium and value segments vary significantly across regions, but premium remains critical to OEM profits

2017

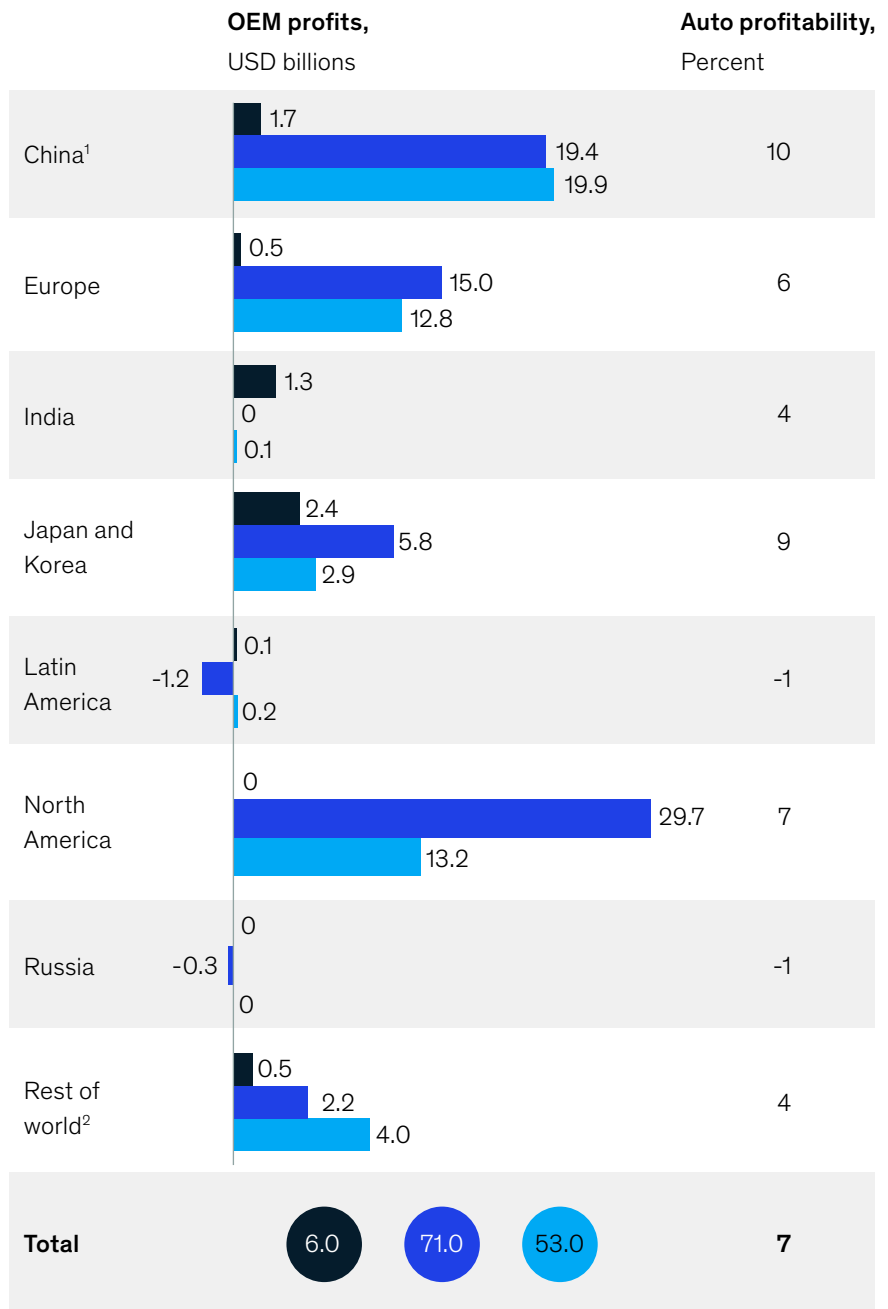
■ Entry ■ Value ■ Premium

13%

of total sales volume belongs to premium segment.

40%

of total OEM profits belongs to premium segment.



¹ China includes China joint ventures, local players, and imports into China

² Rest of world includes Australia, New Zealand, Southeast Asia, Middle East, and Africa

Source: McKinsey automotive profit tool

Premium automotive brands have traditionally used technology and high-end craftsmanship to differentiate their products from mass-market vehicles. Based upon our analyses and industry expertise as well as on insights from leading automotive premium market experts, we have identified five distinct trends disrupting the premium segment (Exhibit 2). Of course, digital technology underpins these trends; extensive McKinsey research has established that four industry-wide developments—autonomous driving, connectivity, electrification, and shared mobility—will mutually reinforce each other and revolutionize the mobility sector for premium and mass-market consumers alike.² However, this disruption isn't the only catalyst for change, as regional differences and regulations contribute to shaping the future of the segment.

Together, these five trends, which are being felt to varying degrees now, are compelling OEMs to differentiate their premium offers in new ways. Survival is at stake, as surveys suggest new capabilities could cause even consumers who are brand loyalists to switch their allegiance.

1. Divergence across the triad: China, Europe, and the United States

While Chinese, European (primarily German), and US OEMs will continue to dominate the market in the coming decade, we are likely to see a shift in the global balance. As of 2017, the United States was the clear volume leader (delivering 1.4 million premium vehicles), followed by China (1.0 million) and Europe (0.9 million). However, our analysis

Exhibit 2

Five trends are shaping the premium auto segment

- 1  Not one segment—divergence across China vs. US vs. Europe
- 2  Premium customers are leading the disruptive movement
- 3  Connectivity and design are the new Nürburgring lap time benchmark
- 4  Brand as last line of defense
- 5  Regulation is the number one disruptor

suggests that the premium market in China will experience annual growth of around 4 percent from 2017 to 2023, while the European and US markets are forecast to hold steady. This trajectory would put China's premium market on par with that of the United States in terms of sales volume by 2023.

A major driver of the growth forecast for China's premium segment is the proliferation of Chinese start-ups focused on electric vehicle (EV) and autonomous vehicle (AV) technology. The country is putting in place monetary and nonmonetary policies to sustain EV sales. These regulatory changes primarily involve liberalizing the participation guidelines for foreign

companies in Chinese EV OEMs, relaxing purchasing restrictions, and increasing driving privileges as well as subsidies for EV customers. EV vehicles see higher adoption among premium consumers compared with mass-market consumers because the premium price point is sufficient to accommodate EV technology into autos.

These efforts have also translated to investor interest in the EV segment. From 2015 to 2018, investors directed more than \$6.8 billion to Chinese OEMs, a CAGR of 262 percent. The combined total investment in Europe and the United States during this period was just \$2.7 billion. As a result, European and US OEMs are feeling

² For more, see "Artificial intelligence as auto companies' new engine of value," January 2018, on McKinsey.com.

significant pressure to keep pace so that Chinese manufacturers don't use the low cost of their local production to corner the future EV market.

While many elements of the premium autos are universal, we can expect differences across the segment's primary markets—China, Europe, and the United States—to shape the impact of all of the segment's trends, from consumer preferences to brand power to regulation. Indeed, these three markets vary widely when it comes what consumers find most important in a premium vehicle (Exhibit 3). According to McKinsey's 2018 "Future of Automotive" consumer survey, for US consumers driving performance is the most important feature, while consumers in China and Europe put powertrain at the top of the list—both features that have traditionally defined the premium vehicle segment, along with overall

experience of ownership. China is the only region of the three in which brand and connectivity currently make the top five; in Europe and the United States, consumers are more concerned with interior and exterior design. However, as we discuss later, these preferences will continue to evolve differently in each region—effectively redirecting the focus of OEMs with premium brands.

2. Premium customers driving digital disruption

Our analysis found that premium customers are at the vanguard of the digital buying journey and shared mobility solutions. At rates higher than their mass-market counterparts, premium customers are adopting digital technologies in their purchasing journey and in their set of mobility options to complement ownership.

The premium ownership journey is increasingly digital

The vehicle ownership process starts with prepurchase consideration and extends to all services offered throughout the lifetime of ownership until the next vehicle purchase. For premium customers, digital technologies are becoming integral components of every stage of this journey—particularly at the outset. McKinsey has found that 73 percent of premium customers start their buying journey online, compared with 62 percent of mass-market customers. Several factors may be at play, including a higher rate of internet access among wealthier consumers. Furthermore, the more expensive the car, the more extensive the buying decision—meaning premium customers are likely to spend more time learning about their options; indeed, premium customers in the same survey rated online price aggregators as the most

Exhibit 3

Premium consumers have largely different preferences across major markets

Top five most important features for consumers across three main markets¹



¹ Full list of features: powertrain (electric driving range, charging rate, engine technology), driving performance (performance, driving feel, driving technology), functionalities (vehicle connectivity, AI, autonomous driving), styling (exterior styling, interior styling, interior functionality, and space), service (overall experience of ownership), brand image, and reputation

Source: McKinsey "Future of Automotive" consumer survey 2018

important digital application of the vehicle ownership process. And as the premium segment continues to expand the options available, consumers will continue to research the complexities and trade-offs of various vehicles, brands, and options.

Premium and mass-market consumers are about equally likely to actually buy the car online (52 and 55 percent, respectively). However, during the lifetime of the vehicle premium consumers are coming to expect more digital services, such as maintenance alerts and offers from the vehicle's onboard system information as well as software providing product selection advice and driving recommendations. Premium customers' receptivity to and familiarity with digital technology provides OEMs with the opportunity to offer customers enhanced experiences not only during the consideration, evaluation,

and purchase phases but also to build loyalty throughout the lifetime of the customer beyond a single product interaction.

As with the product features described in the first trend, the preferences of premium customers as they relate to digital technologies vary by region as well (Exhibit 4). For example, while 82 percent of premium consumers in China reported starting their buying journey online, that share drops to 73 percent in the United States and 54 percent in Germany (which our analysis uses as a proxy for Europe). In addition, 70 percent of premium customers in Germany and 60 percent in China report a willingness to purchase their next vehicle online, but that number drops to 36 percent for US premium customers. These regional differences have significant implications for OEMs aiming to maintain or increase their market share in these regions.

73%

of premium customers start their buying journey online, compared with 62 percent of mass-market customers.

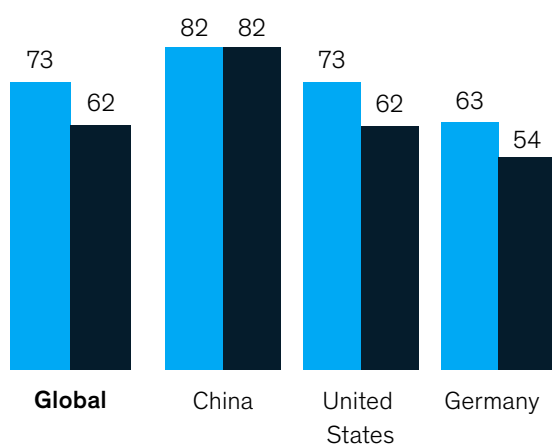
Exhibit 4

More than 70 percent of premium consumers start researching vehicle information online, and more than 50 percent are ready to purchase online

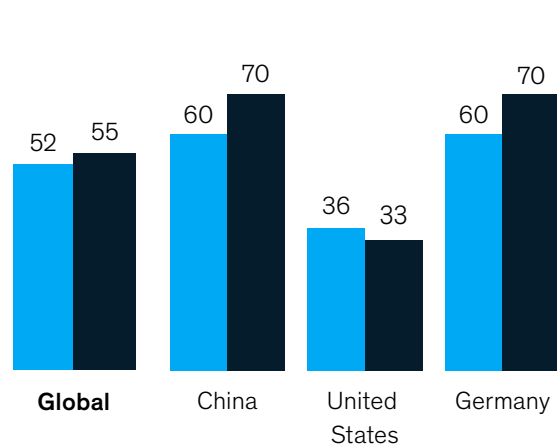
Share of respondents who answered Yes, percent

■ Premium
■ Mass market

When buying your current car, or for an upcoming purchase, did you start researching information online?



Would you like to buy your next car online?



Source: McKinsey "Future of Automotive" consumer survey 2018

20%

of vehicles purchased in 2025 will be used for car sharing.

Premium consumers' appetite for shared mobility solutions is growing

Shared mobility is gaining steam across the globe; to date, at least €25 billion has been invested globally in ride-sharing start-ups, including chauffeuring platforms, pay-per-minute car sharing, and subscription-based memberships.³ In our global survey, premium auto experts and executives predicted approximately 20 percent of vehicles purchased in 2025 will be used for car sharing, with the greatest demand from dynamic subscriptions and fully automated taxi dispatchers.

This shift is clearly being fueled by customer affinity for new mobility options—but this preference varies by customer segment. Our consumer survey found that premium car owners are more likely than their mass-market counterparts to supplement private-vehicle use with mobility solutions (Exhibit 5).⁴ This pattern holds true

whether the alternative mobility solution involves being driven by someone else, as with chauffeuring platforms, or driving themselves, as with pay-per-minute car sharing and subscription-based ownership.

Along with the enthusiasm of premium customers for these mobility services, however, comes an attachment to their privately owned vehicles. More than two-thirds of premium customers indicate a willingness to make car sharing part of their mobility mix, but only 5 percent would “trade in [their] car and use an on-demand car-sharing service as [their] main mode of transportation.”⁵ This is good news for OEMs, as it provides assurance not only that premium consumers will continue to buy private vehicles but also that participation in alternative mobility offers will also continue to be viable. Still, third-party competition is stiff in some segments and regions.

³ Mark Chediak, “There’s never been more money pouring into mobility startups,” Bloomberg, February 2, 2018. <https://www.bloomberg.com/news/articles/2018-02-02/there-s-never-been-more-money-pouring-into-mobility-startups>.

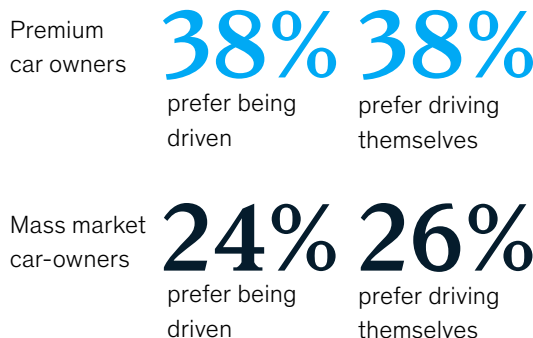
⁴ 60 percent of survey respondents were car owners, and of this group 76 percent owned premium automobiles.

⁵ McKinsey “Future of Automotive” consumer survey 2018.

Exhibit 5

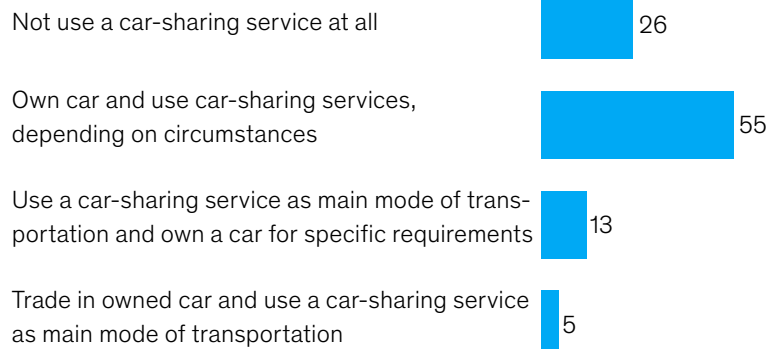
Premium consumers are more likely to use mobility solutions than mass-market owners, yet 90 percent will not substitute their vehicle

Share of owners who see mobility services as valuable or very valuable



Share of premium consumers preferences for mobility services vs. ownership

Percent



Premium-car owners are more willing to use chauffeuring and car-sharing platforms than mass-market car owners. However, only 5% of customers would trade in their owned vehicle for a mobility service

Source: Press, company website, McKinsey “Future of Automotive” executive and expert survey 2018, McKinsey Consumer Survey 2017, McKinsey “Future of Automotive” consumer survey 2018

3. The new differentiating factors in premium: from Nürburgring lap time to design and connectivity

Throughout the early 2000s, many in the industry assessed premium and sports cars by their ability to set record-breaking lap times at the famous Nürburgring motorsports complex in Germany. This challenging circuit became the proving ground for countless performance cars; increasingly, the de facto claim for a new premium car was that it had set a record. To do so often meant optimizing car performance for the track while compromising real-world performance, making this benchmark inherently flawed.

Now, we see that connectivity and design are becoming the critical differentiators for premium customers in choosing premium vehicles. The former is so important that customers are willing to switch premium brands to get the connectivity they desire—

particularly in China.⁶ And while design has arguably always been a consideration, interior functionality is expected to have greater influence on purchasing decisions for premium customers than their mass-market counterparts. The relative importance of these features is further strengthened by the fact that technical performance—once a hallmark of premium—is being commoditized as EV technology unlocks levels of performance previously seen only at the highest levels of premium vehicles.

Thanks to electrification, performance will become a commodity

Of course, vehicle performance is not lost on premium customers. But the classic differentiator—the powertrain—is losing its edge. Planned launches of models with hybrid and electric vehicle (xEV) powertrains is set to increase dramatically, from 35 percent in 2019 to more than 60 percent in 2021,⁷ effectively leveling the playing field on acceleration: the standard

0-60 mph time of current battery electric vehicles on the market is 4.3 seconds compared with 6 seconds for cars with internal combustion engines. There are variations by region, but in general, premium EV customers are most concerned with driving range and battery-charging rate as the most important aspects of the powertrain (Exhibit 6).

Coming in third for premium customers is performance, which includes acceleration and suggests that while battery-related aspects are important, customers still value responsiveness. As EVs proliferate—accounting for 20 to 30 percent of all new vehicles in 2030—performance features once considered premium, such as superior acceleration, will become standard. Specifically, as battery costs fall (the industry has seen a 73 percent cost reduction since 2010), EVs capable of 0-60 mph acceleration in less than four seconds will become abundantly available.

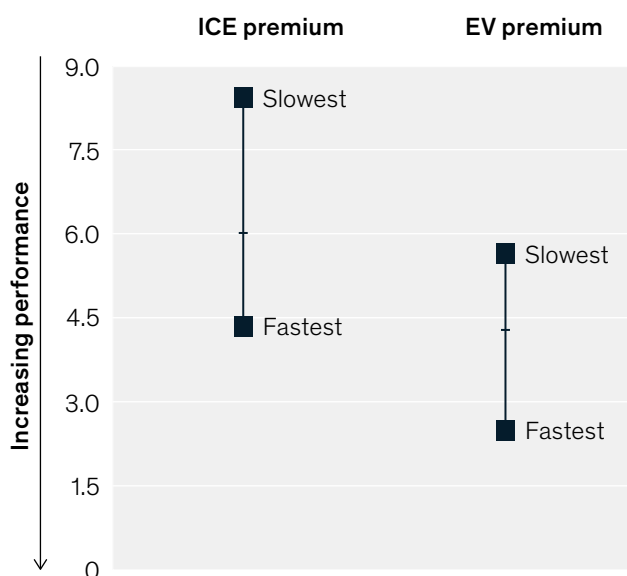
⁶ McKinsey "Future of mobility" consumer survey 2015 and 2017.
⁷ IHS Markit.

Exhibit 6

With the advent of electric power, the focus will shift from performance to battery features

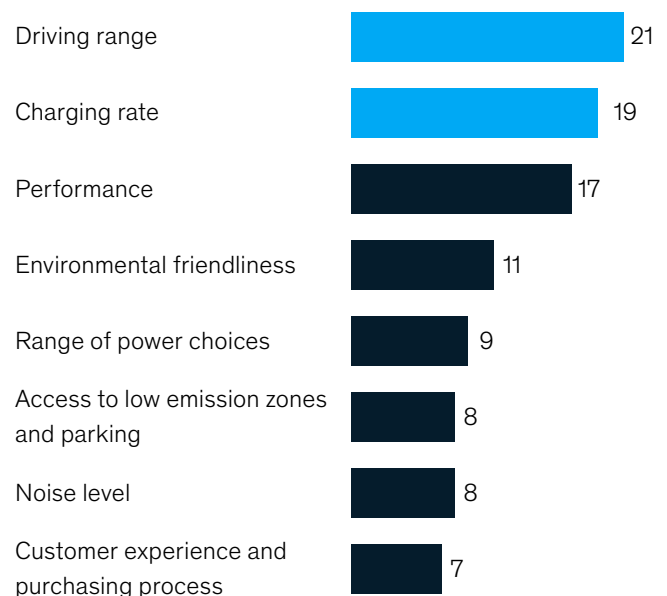
Premium vehicle performance

0-62 mph, seconds



Which features do you value most in an electric vehicle?

Share of consumers, percent



Source: McKinsey "Future of Automotive" executive and expert survey 2018, McKinsey "Future of Automotive" consumer survey 2018

Superior connectivity will be a decisive factor

Customers are used to full, often remote, control over their personal environments at home and are coming to expect the same from their car. Digital “personal assistants” such as Alexa and Siri keep grocery lists, send messages, set meetings, navigate

the outside world, and even tell jokes. Against this backdrop, and as the ways in which vehicles are connected to the internet has grown rapidly in the past two years, the percentage of consumers willing to change car brands for better connectivity has doubled.⁸ Premium consumers are more likely to switch allegiance compared with mass-

market consumers across regions (Exhibit 7). In general, customers in China are more willing than those in Germany and the United States to switch based solely on connectivity capabilities—no surprise given that Chinese consumers already place connectivity as a top-five requirement for a premium vehicle.

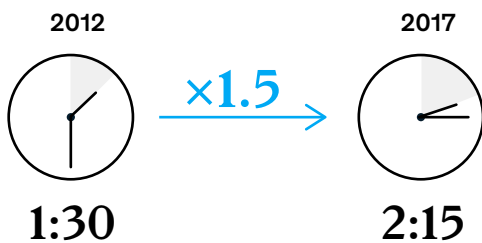
⁸ McKinsey “Future of Automotive” consumer survey 2018.

Exhibit 7

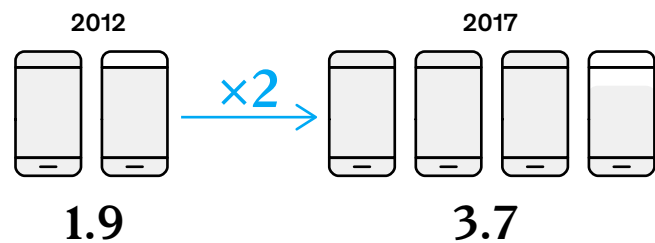
Connectivity offer, especially for navigation purposes, will determine vehicle choice for premium consumers

Average daily time spent on social media¹

Hours:minutes



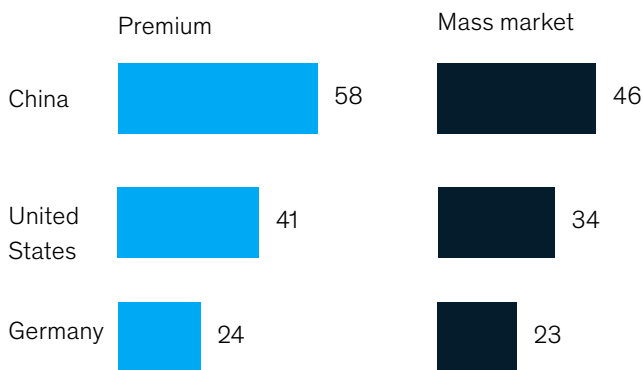
Connected devices per household¹



Customers expect their digital ecosystems to be online, all the time

Willingness to switch to another car manufacturer²

Share of consumer respondents, percent



Top connectivity features

Share of premium and luxury consumer respondents

- 1 Vehicle communication with smart roads and traffic services
- 2 Vehicle communication with other vehicles (for example, to predict traffic)
- 3 Full integration with current and older smartphones
- 4 Full integration with “personal” assistants (for example, Siri or Alexa)
- 5 Full integration with media subscription services (for example, Spotify)

Car connectivity is a key differentiator for OEMs, as premium consumers indicate better connectivity would be a switching factor, particularly in China

Communication with roads, traffic services, and other vehicles is considered most important feature, while integration with mobile phone is an absolute necessity

¹ Strategy analytics, Global Web Index

² If it were the only one offering a car with full connectivity; McKinsey “Future of mobility” consumer survey 2015 and 2017

³ McKinsey “Automotive Revolution—perspective towards 2030”

Source: McKinsey “Future of Automotive” executive and expert survey 2018, McKinsey “Future of Automotive” consumer survey 2018, strategy analytics, Global Web Index

1/3

of premium consumers said they wouldn't buy a car without connected navigation.

Specifically, premium consumers ranked connected navigation—including real-time traffic, weather, and road conditions—as the connectivity feature most critical to their next car purchase (Exhibit 8). One-third of premium consumers said they wouldn't buy a car without such connectivity; a similar proportion said the same about automated collision prevention at intersections. Autopilot capabilities and automated guidance to available parking spots will be a differentiating factor for one in five premium consumers.

The value that premium customers place on connectivity services has significant implications for OEMs. We estimate that connectivity services will be an important revenue generator in premium as they may represent 5 to 10 percent of OEM revenue in 2030, up from 1 percent in 2016.⁹ Indeed, the recurring revenues from data-enabled connectivity services will grow as today's basic services such as real-time maps, onboard diagnostics, and keyless entry evolve into more sophisticated capabilities such as live road conditions reports, predictive service booking, and targeted advertisements.

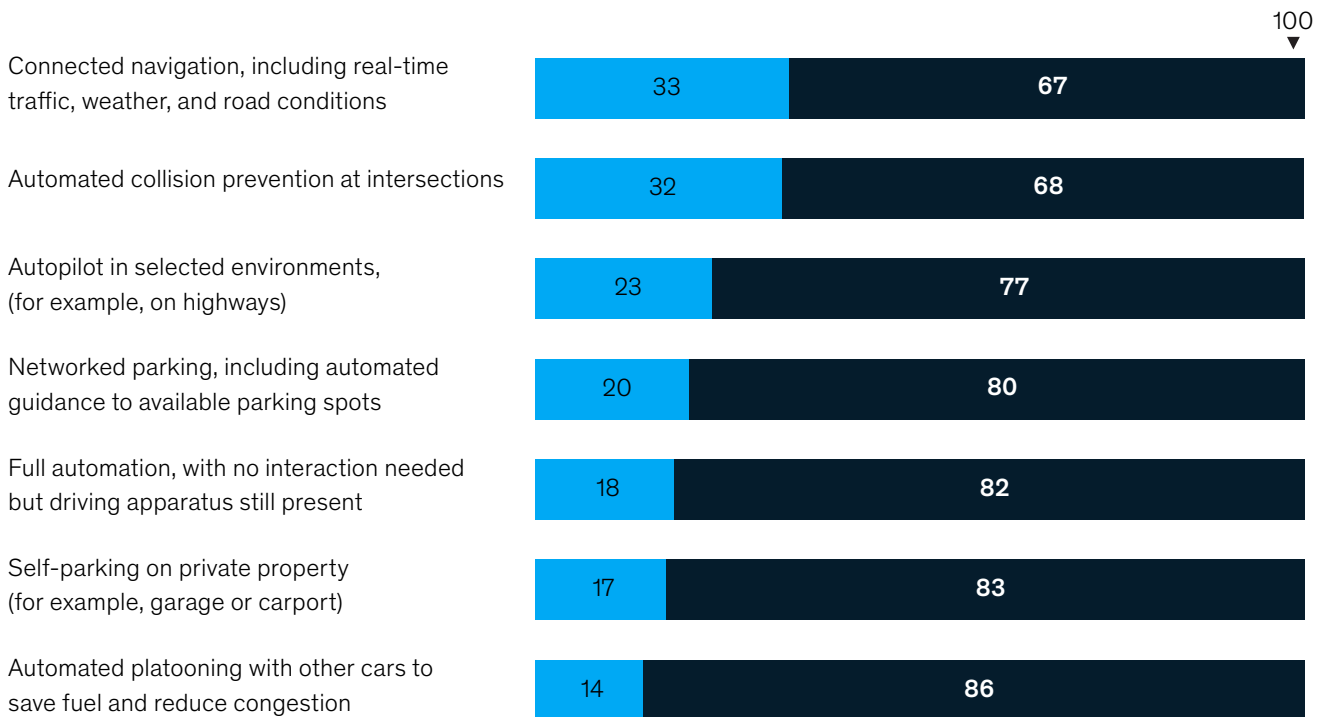
⁹ McKinsey "Automotive revolution—Perspectives towards 2030," January 2016.

Exhibit 8

Premium consumers rate connected navigation as the most critical vehicle technology for future vehicle purchases

Importance of vehicle technology features for next car purchase, premium consumers
Share of respondents,¹ percent

■ Useful, but not crucial
■ Critical, would not buy car without it



¹ Selected premium OEM owners asked "Imagine your next car purchase. How important would the below features be in your buying decision?"; n=895
Source: McKinsey "Future of Automotive" consumer survey 2018

90%

of automotive experts and executives expect that interior features such as display screens, interior space, and the use of high-end materials will have more impact on the premium market than on the mass market.

Design is core

In addition to connectivity, our analysis suggests that interior styling is becoming a differentiating factor for premium vehicles in the near term—even as experts and executives predict the importance of exterior styling will decline (Exhibit 9). Nine in ten automotive experts and executives also expect that interior features, such as display screens, interior space, and the use of high-end materials, will have more impact on the premium market than on the mass market, as OEMs have fewer ways to set premium autos apart from the competition.¹⁰

This forecast by experts aligns with consumer self-reporting about the importance of interior functionality. Half of premium US customers state that interior functionality is very important. Again, however, we see regional differences; for premium customers in China and Germany, that number drops to 40 and 38 percent, respectively.¹¹

A more granular look reveals two categories of interior features as the most important in the coming years; environmental enhancements (for example, air purification) and comfort features (such as massaging seats). More generally, we believe premium customers are looking for more innovative, multipurpose, and ergonomic cabins capable of supporting the way they want to live their life today. The customization of the space to the specific individual, rather than the specific vehicle, is a rich area of opportunity for OEM differentiation—for example, temperature, routing, and other preferences could be dynamically matched to drivers as they move from one vehicle to the next.

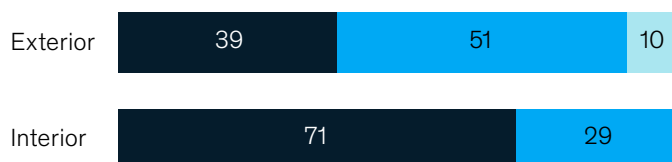
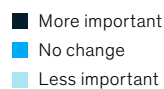
¹⁰ "Future of Automotive" executive and expert survey, McKinsey, 2018.

¹¹ McKinsey "Future of Automotive" consumer survey 2018.

Exhibit 9

Exterior and interior styling are top differentiators

Importance of customization in five years vs. today



Impact of interior features in premium vs. mass market



While both exterior and interior styling will be differentiating factors for premium OEMs, interior customization will become more prominent

Source: McKinsey "Future of Automotive" executive and expert survey 2018, McKinsey "Future of Automotive" consumer survey 2018

4. Brand remains king— but evolves

Premium OEMs will need to rethink their strategies as two elements begin to challenge what was once a reliable asset: brand power.

First, the non-OEM companies behind the proliferation of mobility services are beginning to compete directly with OEMs on brand. Uber, for instance, saw its brand value climb from \$11 billion in 2016 to \$16.6 billion in 2018¹²—roughly equivalent to the brand values of Audi and Porsche. The good news is that even in shared mobility, premium consumers still value vehicle brand; a McKinsey survey found that 45 percent of premium consumers who use shared mobility services rate vehicle brand important in on-demand car sharing, and 41 percent rate it important in on-demand chauffeuring services.¹³ These preferences give OEMs an opportunity to use the brand capital they have built to capture value in the mobility solutions space.

Second, as OEMs expand their portfolios to include more products, services, and partnerships, they face the risk of increasing brand complexity. In other words, as OEMs tackle new customer segments, increase global awareness of their brand, and enter the mobility game on their own terms, they also face the challenge of a stretched or diluted brand. For example, OEMs rolling out EVs will need to balance the brand reputation of those vehicles with ongoing ICE vehicles.

5. Driving disruptive force: regulation

According to the McKinsey “Future of Automotive” executive and expert survey 2018, automotive experts see regulation as the single biggest disruptor for OEMs from 2017 to 2023. Specifically, regulations on emissions and autonomous vehicle technology will have the largest impact. The opportunity arises for the OEMs best able to address the specific challenges presented by regulatory constraints, including typically short timelines for impact, a lack of (or changing) regulatory direction, often divergent or mismatched regional differences, and underlying political instability. And of course, the fact that vehicle sales transcend regulatory borders adds complexity, as OEMs seek to derive scale advantage related to both emissions and AV-related regulation and the various markets they serve.

Meeting increasingly stringent emissions standards

Today, China, the European Union, and the United States are in the middle of five-year efforts to reduce carbon emissions. Beyond 2020, each region is also looking to set ambitious targets. In December 2018, for example, the EU established an emissions reduction target of 37.5 percent by 2030. These efforts are forcing OEM executives to adjust their strategies in response. (For one example, see sidebar, “The impact of London’s emissions regulations.”) Premium OEMs are better positioned to comply with emissions regulation, as their customers are typically willing to pay for vehicles with cutting-edge technology. To achieve these targets, regulatory bodies will aggressively promote BEV technology and set tighter restrictions on internal combustion engine vehicles.

45%

of premium consumers who use shared mobility services rate vehicle brand important in on-demand car sharing.

41%

of premium consumers who use shared mobility services rate vehicle brand important in on-demand chauffeuring services.

The impact of London’s emissions regulations

London has been at the vanguard of cities in seeking to limit emissions from vehicles, and its ever more ambitious targets for emissions reductions have been matched by increasingly stringent regulations on vehicles. Dating back to the early 2000s, London was already implementing measures such as a congestion fee for vehicles. More recently, the city’s goals—such as a 60 percent reduction of CO₂ emissions (against 1990 levels) and the sale of 250,000 ultra-low-emission vehicles by 2025—all correspond to a ban on gasoline-fueled autos in the city center that same year.

To pursue these targets, London has instituted a number of measures aimed at changing driver behavior through financial disincentives, such as £10 toxicity charge on top of a congestion charge for high-polluting vehicles in central London. With programs that encourage the purchase and operation of electric and hybrid vehicles, the city’s regulatory trajectory serves as an early indication of the additional (and varied) regulations that premium OEMs will have to address in order to stay competitive in global cities.

¹² Brand Finance; Global Top 500.

¹³ McKinsey “Future of Automotive” consumer survey 2018.

54%

of customers globally are willing to pay a premium for automated driving functionalities.

The rise of autonomous vehicles

Eight of the top ten OEMs plan to have highly autonomous technology by 2025—and this technology will be showcased in the premium segment before the mass market. Approximately 70 percent of automotive experts predict that L3¹⁴ will be the minimum autonomy requirement for customers in the premium and luxury segments (Exhibit 10).

More than half of customers globally (54 percent) are willing to pay a premium for automated driving functionalities; however, the current price-point expectation (\$4,250 in addition to the vehicle's base price) is below what it would cost OEMs to deliver it today. Furthermore,

premium customers are more likely than their mass-market counterparts to agree that OEMs will guarantee the safety of these features. To this end, premium OEMs are introducing autonomous features to their vehicles incrementally.

Regulatory bodies, however, are the gatekeepers of AV implementation. As regulations allow for an increasing number and level of autonomous features on roads, shared mobility players are expected to be first adopters, given the potentially huge reduction in operating costs that AVs could usher in. Accordingly, these companies have taken the lead in educating consumers on the benefits of the technology.

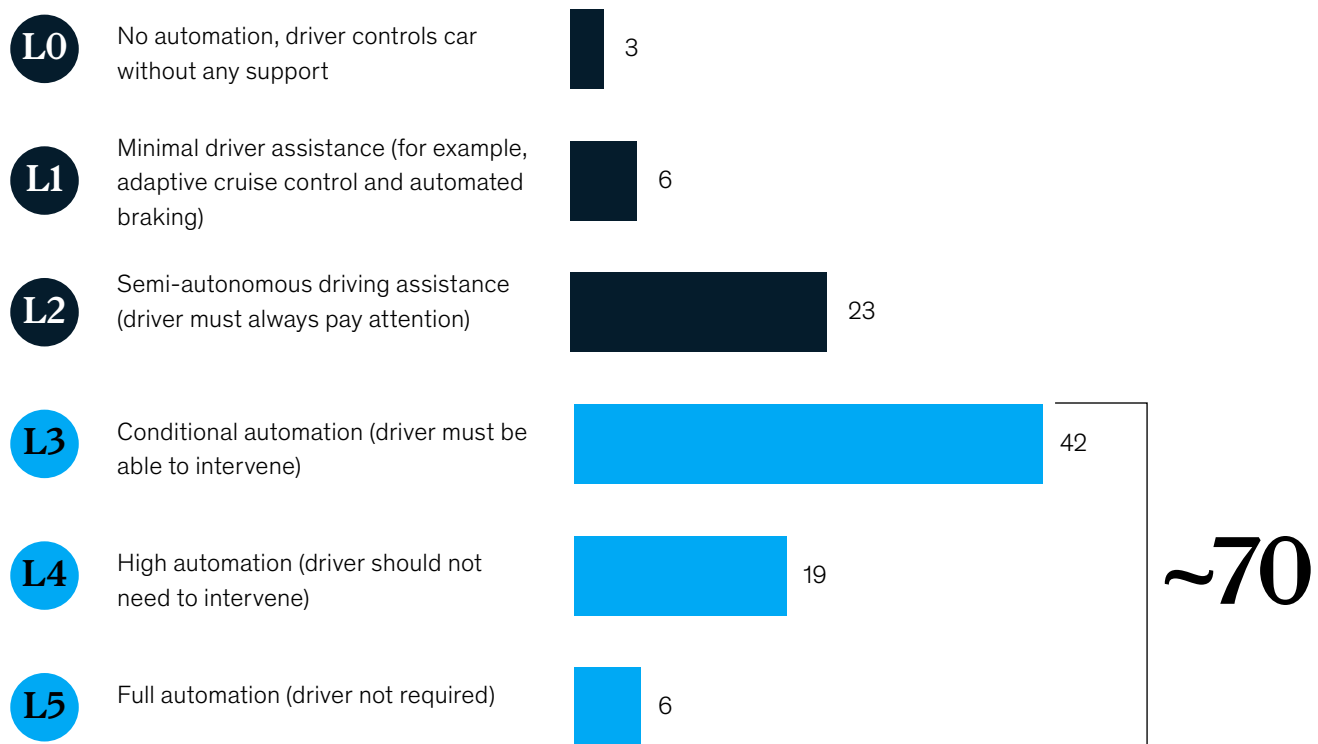
¹⁴ Conditional automation (driver must be able to intervene).

Exhibit 10

More than 70% of experts expect consumers to demand automation of L3 and above by 2025

What level of automation do you believe will be the minimum requirement by consumers for vehicles in your segment by 2025?

Share of respondents, percent (n = 31)



Source: McKinsey "Future of Automotive" executive and expert survey 2018

Recommendations for premium players

The increasing importance of digital technologies to support the customer journey, changes in brand power, and regulatory uncertainty will continue to disrupt the premium automotive segment. But just as premium players will be uniquely affected by these trends, they are also uniquely positioned to tackle them head on. Premium OEMs that act now to take advantage of the unprecedented opportunities presented by this market disruption can solidify their position as a differentiated and attractive alternative to mass-market autos. To prepare for the premium market of the future, OEMs should take several strategic actions.

Know and embrace your customer

With market growth for premium cars slowing down and partially stagnating, premium OEMs have to find new opportunities in smaller pockets of growth to continue their success story. This, however, means that they will need to innovate their offers along 3 dimensions: (1) they will need to find new ways to address granular customer needs and create demand without always adding massive product complexity with the new, costly product derivatives. (2) They will need to widen their spectrum from being a sheer car manufacturer to being an end-to-end premium mobility provider that is able to address widely differing customer needs. And (3) they will need to rethink their relationship to the customers, from primarily focusing on one-time transactions towards becoming a relevant partner in a true lifetime relationship with continuous interactions beyond servicing the car. Only if the premium OEMs will be able to do this, they will tap new opportunities for growth and profitability. And to do so, they will need to step-change their understanding of the customers and

complete a mindset shift from driving their business from an engineering-lens towards challenging the way of doing business through a true customer-lens.

Be agile

Flexibility and agility in design, engineering, and manufacturing are critical to reduce the time to market and adapt to changing consumer preferences. Given the different pace of advancements in car manufacturing and technology, traditional manufacturers in the premium space must embrace agile principles to synchronize the widely disparate development times of vehicles and connectivity services.

Strengthen and differentiate the brand

The future role of brands for premium OEMs cannot be overemphasized. With sheer product differentiation becoming more and more difficult with the advent of electromobility and brands becoming more and more stretched through mobility offers, premium OEMs need to overinvest into their brands and translate their brand essence into all

elements of their offer. As our research has shown, customers are willing to “fight” for their brands even when using third party mobility providers such as UBER. Yet, this preference for the brand needs to be constantly nurtured across all customer segments, including the increasing segment of non-car owners, so OEMs need to double down on developing a clear “brand design language” that includes signature elements that can be found across all mobility offers. Finally, with the increasing number of offers and the multitude of available channels, OEMs need to implement a rigid brand monitoring and management to keep the brand promise across offers and channels.

Become a premium mobility provider

As mentioned earlier, OEMs can generate significant additional value from mobility by focusing on service-based business models that provide access to a pool of vehicles. Key will be to leverage the desirability of their products as well as to provide a premium experience to keep the third party mobility providers such as UBER

at a distance and/or make the demand for the products so distinctive that the success of premium mobility providers will depend on offering the OEMs' products. Beyond the sheer offer aspect, OEMs should also leverage their ability to generate distinctive insights about customer behaviors through advanced analytics that can inform the development of high-potential services and how to monetize them. To do so, OEMs will have to embrace a larger and more complex ecosystem that involves technology partners and other third parties.

Outlook

The convergence of several trends is behind a once-in-a-generation disruption to the premium automotive market. Technology advancements are reshaping the customer journey, expanding options for mobility, and transforming the vehicle itself. Premium customers, in particular, are embracing these changes as they, more than customers of other vehicle segments, are responding positively to these developments.

Companies of all types—from traditional manufacturers and suppliers to the new OEMs, tech companies, and mobility service providers that have entered the space more recently—will feel the effects of the resulting new realities. In addition, the challenges presented by these trends are accompanied by a set of valuable opportunities for companies ready to take decisive action.

Companies that are able to rethink their approach can develop the right products and services for the right customers in the right places. The successful OEMs will build this new portfolio through the lenses of both hardware and software, but they will do more. They will also commit to the belief that the sale of these products and services is just the beginning of a long and valuable relationship with their customers, enabled and sustained by software-enabled customization and a superior “end-to-end” customer experience.

Urgency will be critical to success. Given the trajectory of change and the impact it is expected to have, the time to act is now. Premium automotive players that wait too long to develop strategies aligned with new consumer preferences, new business models, and new regulations risk their brands as well as their customers. What are you waiting for?

Authors

Jan-Christoph Köstring

Senior Partner,
McKinsey & Company
Munich

Timo Möller

Partner,
McKinsey & Company
Cologne

Simon Middleton

Associate Partner,
McKinsey & Company
London

Asutosh Padhi

Senior Partner,
McKinsey & Company
Chicago

Andreas Tschiesner

Senior Partner,
McKinsey & Company
Munich

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Media contact

Martin Hatstrup-Silberberg

Senior Communication Specialist,
McKinsey & Company
Düsseldorf

+49 (211) 136-4516

martin_hatstrup-silberberg@mckinsey.com

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