Sustainability in automotive aftersales: the customer perspective

accenture

Perhaps no topic in business today is hotter than ESG—environmental, social and governance issues. And environmental issues, in particular—commonly known as sustainability—are at the forefront, forcing companies to reassess their carbon footprints and the impact their operations have on greenhouse gas emissions and the environment.

Contents

What is sustainability in automotive aftersales?

For most consumers, sustainability in the automotive industry has traditionally meant switching from internal-combustion-engine vehicles (ICEVs) to new-energy vehicles (NEVs)—i.e., any of the various types of hybrid, electric, natural gas and fuel-cell vehicles.

But achieving true sustainability in the industry would require that consumers and automakers also focus on what happens after the manufacture and sale of the vehicle—particularly during servicing, repairs and end-of-life management, together known as "aftersales" (see "Sustainable aftersales and circularity" sidebar on p. 5).

Why is this important? Because achieving sustainable aftersales requires embedding sustainability across all areas of the value chain—starting with R&D and encompassing manufacturing, servicing and repairs, logistics, pricing and even marketing. Our research has found that sustainable aftersales is perhaps more important to the consumer than automakers may realize, including in the area of brand loyalty.

Furthermore, sustainability is no longer just an option but a business imperative, driven by a variety of factors. For instance, regulatory developments are forcing companies to address greenhouse gas emissions, energy consumption and material waste, while investors are diverting financing from "climate risk" companies to sustainable assets, with investment decisions being driven more and more by ESG criteria.

Drivers do care about sustainability in their aftersales experience—and significantly so.

In this report—based on a survey of 8,500* drivers across seven countries in North America, Europe and Asia—we debunk two commonly held myths about the role of sustainability in aftersales. We then recommend actions that automakers can take to enhance and promote their aftersales sustainability efforts, highlighting how some automakers—also known as original equipment manufacturers, or OEMs—are moving forward.

The good news for automakers: There is tremendous opportunity to move their aftersales sustainability needle forward and set themselves apart for competitive advantage—regardless of their current sustainability level; whether they sell NEVs, ICEVs or both; and whether they are considered a premium or non-premium brand.

Sustainable aftersales and circularity

Aftersales encompasses all products, services and operations related to the ongoing use and operation of a vehicle after it has been manufactured and delivered to the owner or driver—primarily maintenance (oil changes, new tires, etc.) and repairs; the manufacture, transport and installation of spare/replacement parts; and end-of-life management (mostly recycling of vehicle components and fluids). "Sustainable aftersales" refers to doing this in the most eco-friendly manner possible—i.e., in a way that minimizes the carbon footprint (including using low-carbon materials, green energy sources and zero-emissions logistics during maintenance, servicing and repairs) and increases material circularity (by, for example, limiting material waste through reuse and/or recycling).

Material circularity is a key step on the road to full circularity—reusing, repairing and recycling materials and products as long as possible to minimize pollution and other ecological impacts. It's about feeding items back into the supply chain (and value chain) rather than to the landfill.

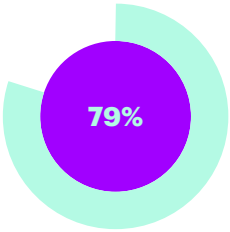
* Drivers who participated in the research represented a wide cross-section of age groups (18–69); vehicle drive types (internal combustion engine and new energy—i.e., hybrid, electric, fuel cell, etc.); vehicle types (premium and non-premium brands); and residential areas (urban, suburban, rural).

Myth #1: Drivers don't care about sustainability beyond the vehicle purchase

There's no denying the growing emphasis on sustainability in nearly all facets of life. This is particularly apparent in the automotive industry, as the rapid growth of electric and other NEVs shows. Yet it's often believed that the purchase of an NEV is where a driver's commitment to sustainability ends—i.e., that if a driver has purchased a green vehicle, they don't concern themselves with sustainability after the purchase.

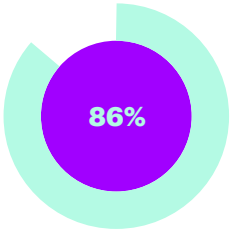
However, our research has found that this isn't the case. Drivers do care about sustainability in their aftersales experience—and significantly so.

In fact, eight in 10 drivers (79%) view sustainability as an important consideration in vehicle servicing and repairs, rating the importance of sustainability as 7 or higher on a scale of 1 to 10, where 10 is "extremely important." This is true whether they drive an ICEV (where 77% rated sustainability a 7 or higher) or NEV (82%), or whether they drive a premium- or non-premium-brand vehicle (79% each).



Drivers who view sustainability in the aftersales experience as "important"

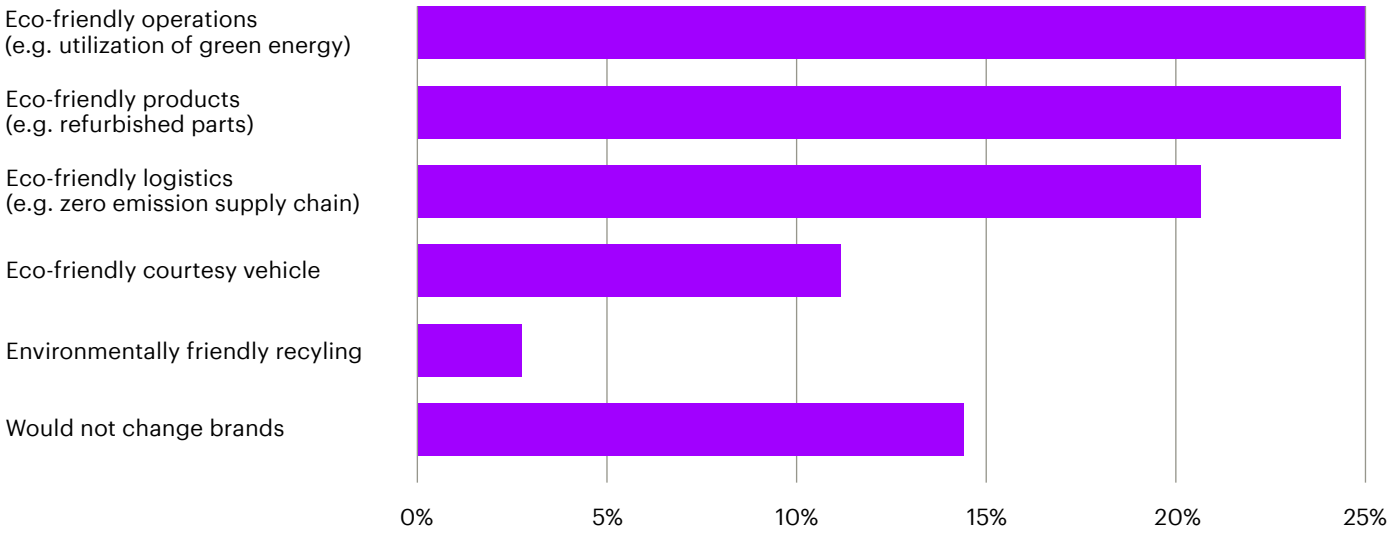
In addition, our research found that drivers are more concerned with sustainability than with brand loyalty. For instance, 86% would change brands if they could get a more sustainable aftersales/servicing experience with another comparable vehicle, with NEV drivers slightly more willing than ICEV drivers to change brands (90% vs. 83%). The top reasons cited for willingness to change brands include eco-friendly operations (green energy), eco-friendly products (e.g., remanufactured parts), and eco-friendly or zero-emission logistics (see Figure 1). And the younger the driver, the more willing they are to change brands for greater sustainability in the aftersales experience.



Drivers who would be willing to switch brands for more sustainable aftersales

So, it's clear that sustainability is important to drivers not just in their choice of vehicle (i.e., at the time of purchase), but throughout the life of their vehicle as well.

Figure 1: % of respondents willing to switch brands for ...

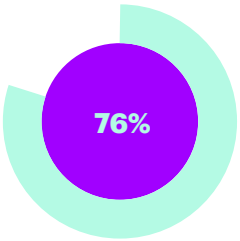


Myth #2: Drivers won't pay more or make trade-offs for sustainability

As we've just shown, sustainability is important to drivers not only in the type of vehicle they drive, but in their aftersales experience as well. Yet, while many people claim to care about sustainability, it's widely believed that they're hesitant to make any trade-offs for it.

Our research debunks that myth, finding that customers are willing to accept certain trade-offs for more eco-friendly aftersales functions.

For instance, three-quarters (76%) of all drivers are willing to pay more for a greater level of sustainability in vehicle servicing and repairs, with drivers of NEVs more willing than those of ICEVs to pay a higher premium (see Figure 2).

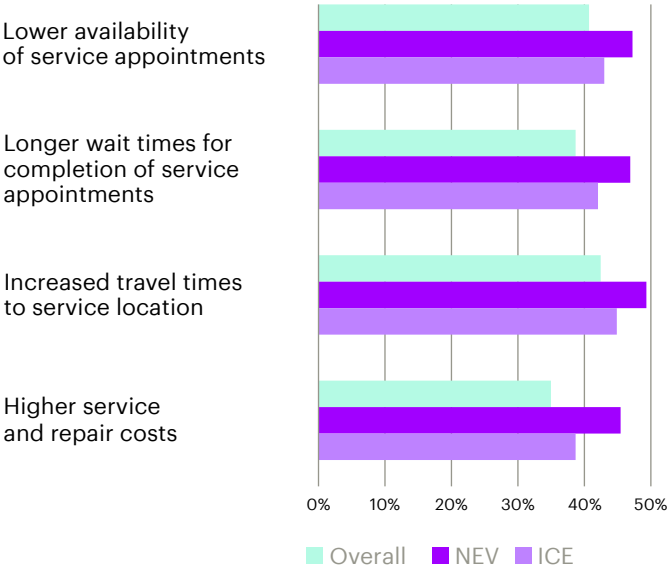


Drivers who are willing to pay more for a greater level of sustainability in vehicle servicing and repairs

However, it's not just money that drivers are willing to sacrifice for more sustainable aftersales operations, but their time as well. Specifically, more than four in 10 respondents (42%) said they would accept longer servicing times, and approximately the same number (43%) said they would accept lower availability of service appointments, in exchange for greater sustainability in aftersales operations.

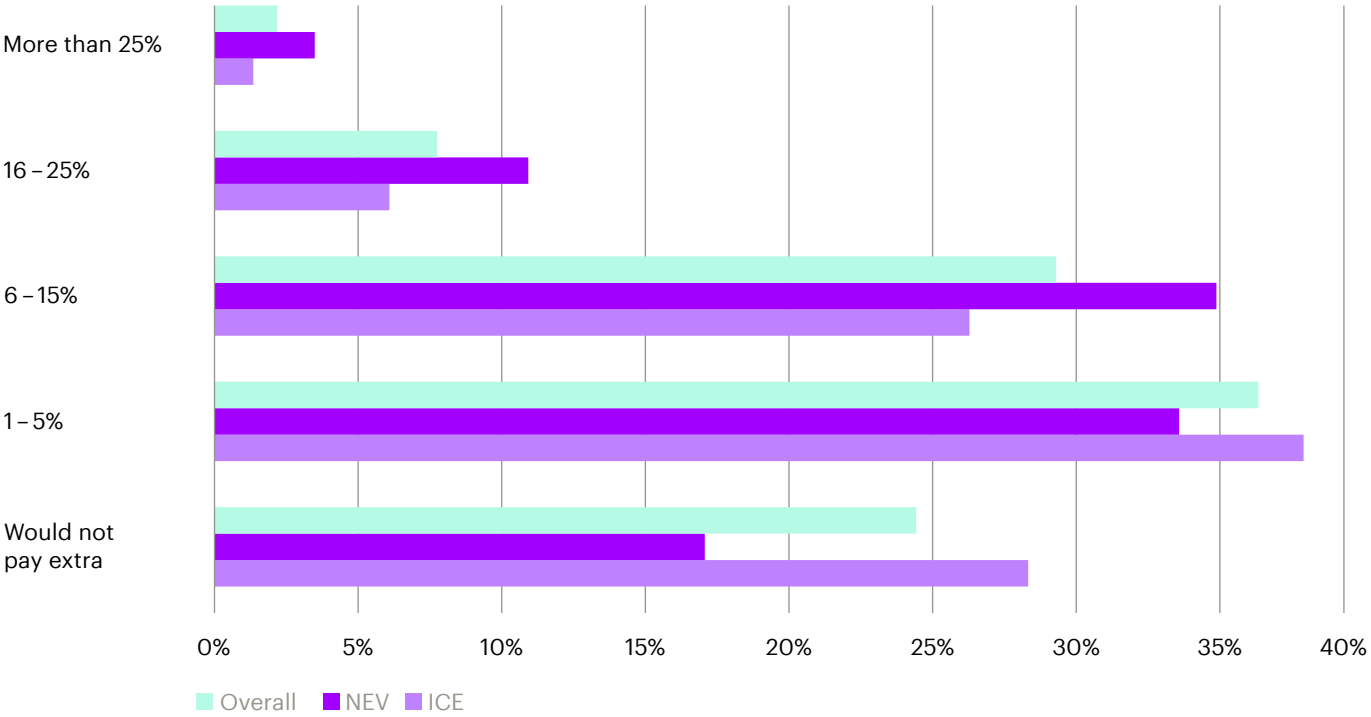
Given that auto sales are trending toward NEVs, it's noteworthy than in both instances, drivers of NEVs were approximately 15–20% more likely than those of ICEVs to accept these trade-offs (47% vs. 39% for longer servicing times, and 47% vs. 41% for lower availability of service appointments; see Figure 3).

Figure 3: % of drivers who are willing to accept trade-offs for a greater level of sustainability in servicing and repairs



The key takeaway: Not only is sustainability in aftersales important to drivers, but customers are willing to put their money where their mouth is—accepting higher costs and other trade-offs for more eco-friendly servicing and repairs.

Figure 2: How much more are you willing to pay for a greater level of sustainability in servicing and repairs?



No single automaker "owns" the aftersales sustainability concept (yet)

Our research shows that drivers clearly value sustainability and are willing to make trade-offs for aftersales operations that are more eco-friendly. But it also found that there is no consensus among drivers regarding which brands lead in terms of sustainable aftersales.

In fact, the number of drivers who said they don't know which automaker has the best sustainability concept in vehicle servicing and repairs was more than triple that of those who selected the brand cited most often (see Figure 4). This holds true regardless of whether they drive an ICEV or an NEV, although the gap was smaller for NEV drivers, indicating that they are more informed of automakers' sustainability concepts.

While there is no overall consensus as to which brands lead in sustainable aftersales, drivers of non-premium vehicles were 50% more likely than those of premium vehicles to not cite a particular brand as leading. Drivers of non-premium vehicles were also more than five times as likely to not cite any specific brand as leading than they were to cite the brand selected most often.

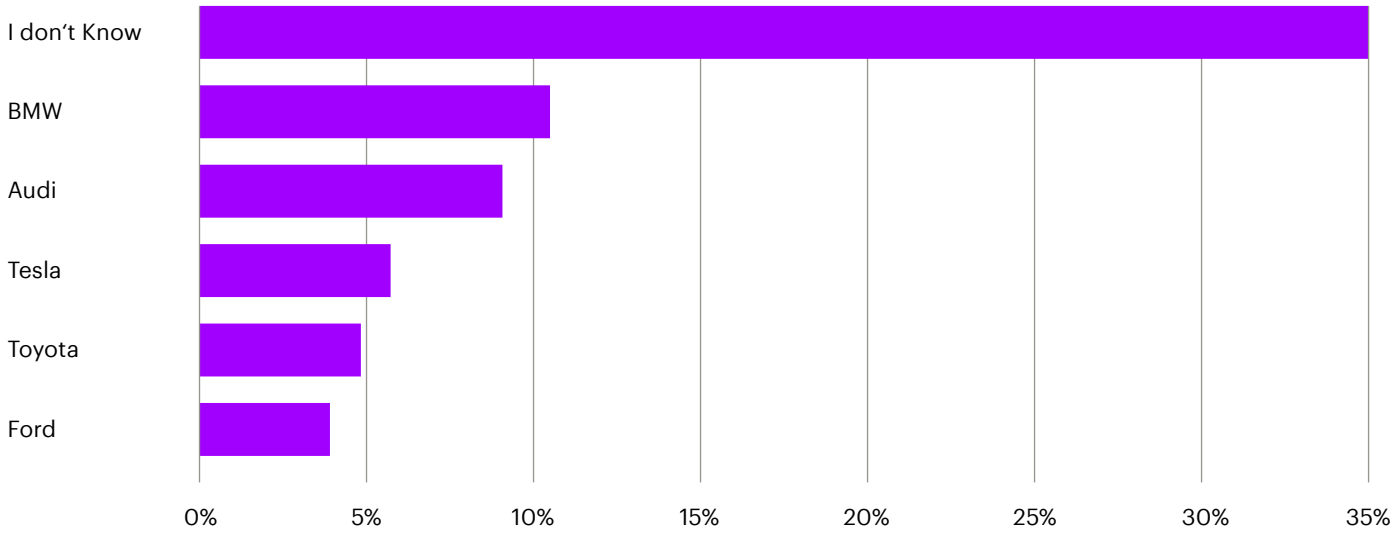
Given that no brand—whether a "native electric" brand such as Tesla or a traditional ICEV brand—is currently seen as a leader in sustainable aftersales, there is even more opportunity for non-premium automakers to enhance and promote the sustainability of their aftersales operations as part of their efforts to attract customers to their vehicles.

Drivers of non-premium brands are more than ...

5x as likely to **not** cite any specific brand as leading than they are to cite the brand selected most often.

Figure 4: Who has the best concept for sustainability in aftersales*?

*The chart shows the five brands cited most often from among the 53 brands that respondents cited.



What should automakers do?

With no single automaker viewed as having a significantly more sustainable approach for aftersales than others, the opportunity is ripe for all OEMs to move forward and establish themselves as a sustainability leader. How? By focusing on four interlinked areas: Product, Operations, Pricing and Promotion.

Product:
Design for sustainability

To facilitate sustainable aftersales, a product has to be designed up front in a way that is consistent with the concept of circularity (see "Sustainable aftersales and circularity" sidebar on p. 5). OEMs should strive to achieve as much circularity as possible in all processes related to the design, sourcing, manufacturing and supply chain of vehicle components, parts, liquids and lubricants.

Mercedes-Benz is a compelling example. For its new flagship electric vehicle, the EQS, the company has a goal to reuse, recycle or recover at least 85% of the vehicle's material.[1] Removed components, assemblies and materials (such as aluminum and copper), as well as selected discarded plastic components, are then sold directly as spare parts or used in the manufacturing of new vehicles. Combining these practices with its existing recycling system—in which the waste materials from servicing and repairs are collected, reprocessed and recovered via a network operating throughout Germany—is laying the foundation for Mercedes-Benz to become a sustainability leader in aftersales.

Honda has also embarked on a journey to achieve optimal resource circularity by minimizing waste and capturing all useful inputs (such as metals) that can be fed back into the value chain.[2] The company uses a circular material stock—much like Mercedes-Benz does with its EQS—for the design phase of new vehicles and a modular vehicle design to replace certain damaged parts rather than the entire vehicle. For sourcing and manufacturing, Honda aims to minimize production scrap, introduce reuse and remanufacturing of parts at scale, have workshops act as circularity hubs, and prioritize circular suppliers in its supply chain.

These are just two examples that show how some leading OEMs are enhancing their sustainability efforts by making their dealer facilities hubs for material circularity—receiving all parts and materials during maintenance and repairs. Achieving full material circularity would require OEMs and dealers to go even further, taking the vehicle back at the end of its life to reuse and/or recycle as many of its components as possible.

Operations:
Embed sustainability at the point of service

The term "operations" in the context of aftersales refers to a wide variety of elements, including the manufacturing of vehicle replacement parts; OEM service centers (in-house and third-party); the energy used to power manufacturing and service-center operations; the end-of-life vehicle disposal process; and the logistics network to transport new, used and remanufactured parts between the OEMs and service centers, as well as the end-of-life vehicle components back to the OEM.

Parts recycling and manufacturing may be done either in-house or by engaging in strategic partnerships. One example is US-based Redwood Materials, which created a completely circular manufacturing system for lithium-ion batteries for electric vehicles.[3] The startup formed partnerships with OEMs such as Ford and Volvo to ingest end-of-life batteries from their service centers and break them down to their

Measuring and reporting on key performance indicators (KPIs)

Accurately capturing and ingesting third-party sustainability data is one of the biggest challenges that OEMs face in terms of sustainability reporting, especially when it comes to second- and third-tier suppliers. To help solve this challenge, Accenture has formed alliances with a number of technology partners to create sustainability "control towers"—i.e., platforms that provide the capabilities to enable holistic sustainability performance management. In addition to helping communicate sustainability metrics and KPIs, the platforms enable external partners to report back against the KPIs, adding transparency to what has historically been a murky process of defining and calculating third-party partners' scope 3 emissions (i.e., those indirectly generated by a business).

component parts, which it then sells to battery manufacturers. The firm has announced its intention to ramp up copper foil production to 100 GWh annually, enough to create batteries for 1 million electric vehicles annually.[4]

Automakers should make the customer aware of the vehicle's sustainability not just as a new vehicle, but during the full ownership period.

Promoting material circularity would require OEMs to provide a clear sustainability/circularity framework for their dealer network (and third-party service centers, as appropriate). The goal is to ensure that each service facility has the processes, tools and training to provide sustainable aftersales and follows the same approach. This might include, for instance, a clear ingestion process for recycled parts and ensuring that recycled parts—including batteries and electric drivetrains—are available when needed. OEMs also need to support their dealer network in the process of energy decarbonization. This could entail, for example, helping the dealer set up solar roof tiles to generate their own electricity and/or establishing a purchasing pool that enables the dealer to obtain green energy at a lower cost.

OEMs also need to introduce sustainability measurement and analytics capabilities company-wide to help embed sustainability in the organization's mindset. This includes hardware and software to enable measurement of sustainability KPIs, as well as a centralized "office," or dashboard, to manage the entire aftersales value chain. These capabilities allow users to actively monitor and control real-time reporting—such as for energy consumption and the amount of material recyclability—while ensuring that KPIs are shared and adhered to throughout an OEM's entire network.

Pricing: Price sustainability into aftersales

As our research shows, drivers are willing to make tradeoffs and pay more for eco-friendly aftersales products and services. But how does one price greater aftersales sustainability in a way that the customer will accept?

To start, OEMs should focus on customers' willingness to pay for greater sustainability—e.g., value levers such as a higher level of recyclability or lower emissions, etc.—by focusing on the needs, preferences, motivators/drivers and buying behaviors of various customer demographic groups. This is typically done by pricing methods such as the Van Westendorp Price Sensitivity Analysis (PSA) or conjoint analysis.

For the PSA method, the OEM would present the customer with a range of prices and price points for sustainable aftersales offerings. This method shows how customer interest drops as the price rises. The end result is a price-demand curve, revealing the optimal price point to maximize profits. The main advantage of the PSA method is that it is easy to conduct and, by providing visualization, makes evaluating the optimal pricing fairly easy.

The specific advantage of a conjoint analysis—a survey-based statistical technique to identify how people value different attributes (in this case, the price of a specific aftersales product or service)—is that customers' willingness to pay is not asked directly. Rather, respondents decide between differently designed products or services at various prices, just as they would in a real-life decision situation. For the pricing of sustainable aftersales, this approach can determine not only how much more customers are willing to pay, but specifically how aftersales product and service concepts can be designed to take sustainability into account during pricing.

The travel and logistics sectors provide several examples. One is Lufthansa's "compensaid" program and CO_2 calculator, which help customers calculate the CO_2 emissions of their trip and allow them to pay more to cover the additional cost of sustainable aviation fuel or for the promotion of a high-quality climate protection portfolio.[5] Another is DHL, the global logistics company, whose "GoGreen" service offsets—through certified climate protection projects—the CO_2 emissions generated by its shipping operations.[6] While DHL had previously offered the GoGreen service for an additional fee, in January 2022 the company began providing this service free of charge.

Longer term, the goal should be to provide sustainable aftersales at no additional cost.

In summary, OEMs need to identify core sustainability value levers via a cost benefit analysis; understand the willingness to pay (e.g., via a conjoint analysis); adapt their pricing, as appropriate; and communicate pricing transparently to customers. This is a great opportunity for OEMs to sharpen their purpose, create positive ecological impact, and promote their sustainability efforts.

Longer term, the goal should be to embed sustainability into aftersales and, through innovation and economies of scale, provide sustainable aftersales at no additional cost to either the OEM or customer.

Promotion: Communicate sustainable servicing efforts simply and transparently

Promotion in sustainable aftersales focuses on creating a purpose-driven brand strategy as well as communicating sustainability efforts effectively. In other words, OEMs, dealers and service partners should make the customer aware—before they even make their purchase—of the vehicle's sustainability not just as a new vehicle, but during the full ownership period (e.g., during servicing, repairs and end of life).

Since, as our research shows, customers are not aware of most OEMs' sustainability efforts in aftersales, the "new frontier" for an OEM to distinguish itself from competitors is not just showing that the vehicle itself is sustainable, but that the entire ecosystem and support system around the car is designed to increase sustainability. And the more holistically and transparently an OEM can provide evidence for sustainability, the more likely that customers could see the automaker as a truly sustainability-conscious brand.

One way to do this is by providing transparency into the sustainability KPIs that they are measuring (both immediate and third-party). OEMs should proactively create messaging touting current efforts and their commitment to increasing aftersales sustainability. This could include, for example, the amount of CO_2 emissions reduced or the amount of material recycled through specific eco-friendly operations. Creating more visibility into aftersales sustainability can help an automaker firmly establish its brand as a de facto leader in holistic sustainability—a significant opportunity given the perceived white space among ICEV and NEV drivers alike.

Mastering each one of these four areas—product, operations, pricing and promotion—is clearly important. But it's only by taking a holistic approach, considering the interconnections between each—in essence, connecting all the dots on the road to circularity—that an OEM will be able to become a true leader in sustainable aftersales.

The road forward

Sustainability is fast becoming the price of admission for players across nearly every industry, and the auto industry is no exception—as the accelerating sales of electric and other NEVs show.

While Tesla and other native electric brands have been rapidly growing their market shares, traditional automakers are also committing significant resources to EVs and other types of NEVs. Yet the one area in which neither type of OEM has a compelling sustainability advantage today is the aftersales market.

As our research shows, the message is clear: Aftersales can no longer be considered an afterthought. OEMs that can master sustainability in aftersales would be able to differentiate themselves—and be well-positioned to win the race for the hearts and minds of customers.

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About the Research

This research is part of Accenture's "What digital drivers want" series covering the latest customer trends in the automotive industry.[7,8] For this study, Accenture surveyed a diverse and randomized group of 8,500 drivers from seven countries: China, the United States, Germany, the United Kingdom, France, Italy and Norway. Although the numbers of respondents per country do not correlate to vehicle sales numbers by geography, the respondents represented all major age groups (18–69); types of residential areas (urban, suburban, rural); vehicle drive type (internal combustion engine and new energy—i.e., hybrid, electric, fuel cell, etc.); and vehicle type (premium and non-premium brands).

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